



# Greyhound Residential Kennels

CODE OF PRACTICE

## **CODE OF PRACTICE**

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**Acknowledgements**

A number of people have generously given of their time and expertise during the development of this document. The GBGB would like to thank the following for their contribution:

Ms. Maria De Battista, Welfare & Integrity Co-ordinator, GBGB;

Dr Ray G. Ferguson, BVSc, Scientific Officer, Australian Greyhound Working and Sporting Dog Veterinarians;

Dr Samantha Gaines, BSc (Hons) MSc, Head of Companion Animals, RSPCA Science and Policy group;

Dr Simon Gower, BVSc MRCVS, Veterinary Director, GBGB;

Dr John Kohnke, BVSc RDA, Greyhound Practical Nutritional Advisor

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University of Nottingham.

Also, to the greyhound trainers and kennelhands who gave their time and knowledge to provide valuable input to this document.

**List of Abbreviations**

ABP	Animal bi-products
CCTV	Closed Circuit Television
CoP	Code of Practice
GBGB	Greyhound Board of Great Britain
GRB	Greyhound Regulatory Board
NFAM	Non-Food Animal Medicine
OTC	Over the Counter (Medicines or Products)
POM	Prescription Only Medicine
POM-V	Prescription Only Veterinary Medicines
TASC	Trainers Assistance Sub-Committee
UKAS	United Kingdom Accreditation Service
VMD	Veterinary Medicines Directorate
VMP	Veterinary Medical Products

**Images:** Unless otherwise stated, the photographs included in this document are industry sourced photographs taken from GBGB licensed kennels or GBGB licensed tracks.

## **Glossary of Terms**

Wherever the following terms or abbreviations appear, they shall have the following meanings and effect:

- i. 'block of units' shall be the building in the greyhound trainers' residential kennels where greyhounds are kept.
- ii. 'clean' shall mean the absence of surface contamination on visual inspection.
- iii. 'competent person' shall be a person, suitably trained and qualified by knowledge and practical experience, and provided with the necessary instructions, to enable the required task(s) to be carried out correctly.
- iv. 'exercise' shall mean physical activity to sustain or improve the health and welfare of the greyhound.
- v. 'greyhound trainers' residential kennels (kennels)' shall be a designated facility where racing greyhounds permanently reside.
- vi. 'hard-wearing' shall mean resistant to damage from gnawing, chewing, cleaning and disinfection.
- vii. 'lying flat' shall be where the greyhound is flat on its side with its neck and legs fully extended.
- viii. 'paddock' shall be a space outside the kennel building(s) that is secure, safe and clean for a greyhound to walk and run either on or off a lead.
- ix. 'single unit' shall be an enclosed sleeping area in which a single greyhound resides
- x. 'double unit' shall be an enclosed area in which two greyhounds reside.
- xi. 'ventilation' shall be the provision of airflow to an enclosed space.
- xii. 'pathogen' a disease causing agent (i.e. bacteria and viruses).

## **List of Appendices**

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Appendix 6: Dental Care of the Greyhound

Appendix 7: Common Conditions of the Skin, Coat, Eyes, Ears and Feet of the Greyhound

Appendix 8: Injury Detection in the Greyhound

Appendix 9: Medical Alert for Acute Canine Haemorrhagic Pneumonia

Appendix 10: Financial Assistance: Details of the Trainer's Assistance Fund

## **List of documentation required:**

- |                                 |                           |
|---------------------------------|---------------------------|
| 1. An Exercise Regime           | 4. Maintenance Procedure  |
| 2. A Diet Regime                | 5. Extreme Weather Policy |
| 3. A Veterinary Healthcare Plan |                           |

# 1 Scope



*Figure 1: A greyhound from a GBGB licensed kennel.*

This Code of Practice for Greyhound Residential Kennels (referred to throughout as The Code) has been produced with the purpose of outlining minimum standards and best practice recommendations for the construction, maintenance and management of greyhound residential kennels and the care of greyhounds within those kennels. The Code should be observed by all GBGB licensed greyhound trainers and kennelhands to support them in meeting the appropriate standards of care for greyhounds in their kennels and to help them to meet the standards outlined in the PAS 251:2017 document: Specification for Greyhound Trainers' Residential Kennels, the GBGB rules of racing and the Animal Welfare Act (2006)<sup>[1]</sup>.

All persons responsible for animals have a legal duty of care to provide for their welfare needs whether it is on a temporary or permanent basis (The Animal Welfare Act, 2006<sup>[1]</sup>).

Aspects of the Animal Welfare Act (2006) and the Animal Health and Welfare (Scotland) Act (2006) are incorporated into The Code to ensure that the welfare standards, and physical and mental needs of greyhounds are met, according to current legislation and in line with the five welfare needs outlined within the Animal Welfare Act. All persons responsible for greyhounds must be aware of their responsibilities according to the Animal Welfare Act (2006) and should familiarise themselves with the content of The Act.

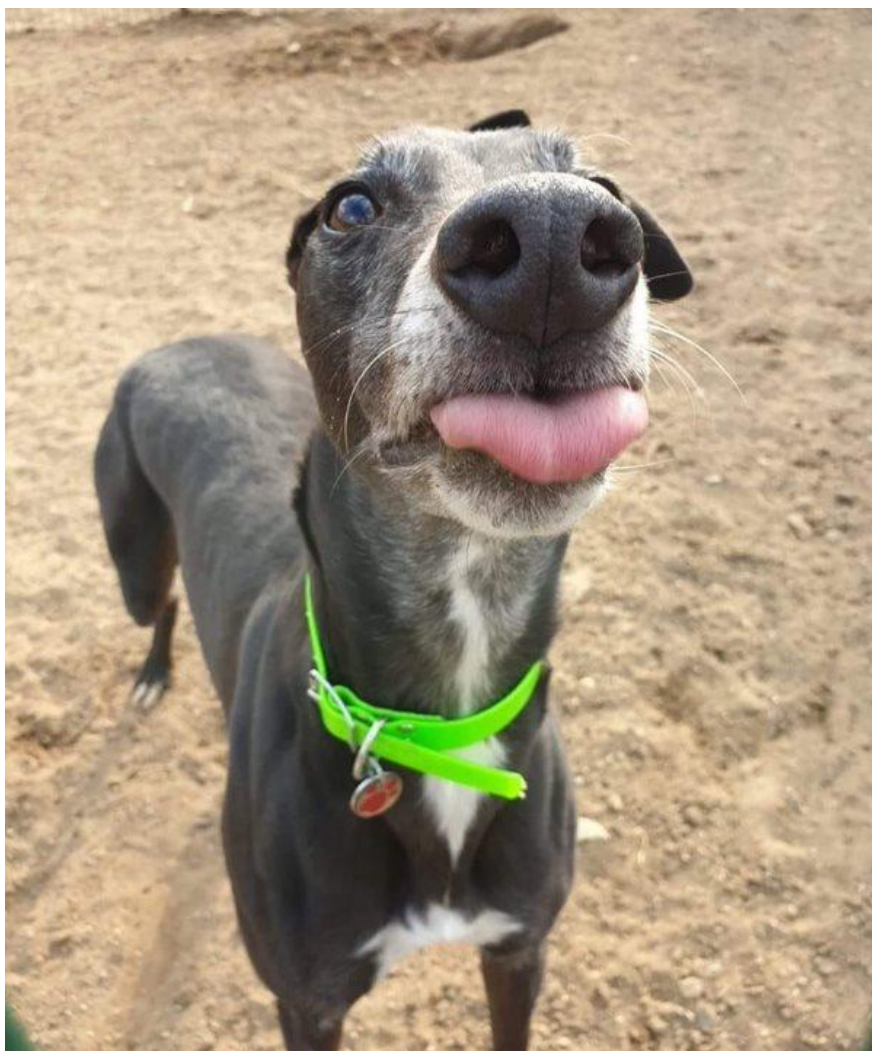
The Five Animal Welfare Needs (Animal Welfare Act, 2006)<sup>[1]</sup> is the need for animals to have:

- A suitable environment
- A suitable diet
- To be able to exhibit normal behaviour patterns
- To be housed with, or apart from, other animals, and
- To be protected from pain, suffering, injury and disease.

Failure by trainers to meet the minimum standards issued in this document could contribute to evidence supporting an offence under the GBGB Rules of Racing.

## 2 Using the Code of Practice

The Code contains guidance under the following sections: Greyhound Welfare, Emergency Procedures, Kennel Security, Kennel Construction, Provision of Facilities and Record Keeping. Further information on specific sections of The Code is provided in appendices included at the end of the document. The appendices provide additional detail on specific subjects and can be used to support trainers and staff to meet the standards set out in The Code and as stand-alone reference materials.



*Figure 2: A greyhound in a paddock.*

For ease of interpretation, colour coded rectangular boxes are used throughout the document to illustrate:

Recommendations and Sizes

Hazards and Key Points

Useful Contacts

Useful Information

Required Documentation

### 3 Greyhound Welfare



*Figure 3: Provision of toys, exercise in natural environments, and human interaction through play, are some forms of enrichment which can be incorporated into husbandry systems at greyhound kennels.*

#### 3.1 Overview of Greyhound Welfare

##### **What does greyhound welfare mean?**

Protecting a greyhound's welfare means providing for its physical AND psychological needs. Therefore, for a dog to experience good welfare it needs to be kept in good physical health, be happy and able to enjoy life.

All trainers and kennelhands must ensure a good standard of welfare for all greyhounds under their care (whether racing, retired, breeding or pups). Greyhounds should not only have their basic needs met to enable them to survive and perform, but trainers must strive to achieve optimum physical and mental health in all of their greyhounds to ensure they are able to enjoy happy and healthy lives.

##### **Registration with a Veterinary Practice**

Each trainer must be registered with a veterinary practice that provides 24-hour emergency care. When registering with a veterinary practice, the proximity of the veterinary practice, and their out-of-hours provisions, to the kennels should be considered so that it is close enough to provide emergency care when needed. The contact information and location of the veterinary practice, including the out-of-hours provision, shall be displayed for easy access by all staff.

Injured or ill greyhounds must receive prompt and appropriate treatment at a veterinary surgery. They must not be transported to greyhound stadia for treatment by the track veterinary surgeon.

## 3.2 Staff Caring For Greyhounds

The staff working with greyhounds are key to ensuring good welfare for the greyhounds under their care. There should be adequate numbers of staff to provide the high level of care required and those staff must be: competent in caring for greyhounds; able to monitor welfare; and able to take appropriate action when required. The trainer should ensure that staff receive sufficient training and support to carry out their work effectively and that they receive recognition for good work delivered.

### 3.2.1 Staff Training and Competency

All staff at the kennels shall be competent persons. Children under the age of 15 years shall not be in charge of a Greyhound.

Prior to commencing work at licensed kennels, all staff must be GBGB licensed and should be suitably inducted and trained in the following areas:

- Animal welfare
- Greyhound behaviour, including recognising body language communication
- Cleaning and hygiene procedures and regimes
- Disease control
- Food preparation and feeding procedure
- Greyhound handling
- Grooming
- Dental care and basic injury checks
- Exercise and enrichment procedures and regimes
- Health and safety
- Emergency procedures including the evacuation plan and use of firefighting equipment

Kennel Staff should receive relevant and appropriate training, be competent in handling greyhounds correctly, be able to correctly identify behaviour indicating good and poor welfare in greyhounds and be able to recognise signs of pain, disease or illness.

A record of all staff training should be kept and updated regularly. Ongoing training and/or refresher training should be provided as necessary. Making reference materials available to which staff can refer is also a useful way to develop knowledge. Staff should have access to emergency contact information. Staff should be encouraged to attend animal care courses, such as the GBGB and Absolute Animal Care Apprenticeship. Such qualifications will not only enhance the capabilities of the staff, but ultimately contribute to improving the welfare standards of the greyhounds under their care.

Trainers should seek to refresh their own knowledge of greyhound health, welfare and husbandry on a regular basis in order to keep abreast of new information and advice.

For information regarding the Apprenticeship scheme contact:  
Tel: 0207 822 0900

Induction of new staff should be completed and recorded within the first week of employment. All new staff should be monitored and should not be given tasks and/or responsibilities beyond their competency level.

### 3.2.2 Helping To Prepare Greyhounds For a Happy Retirement

Adjusting to domestic life after retirement can present challenges for greyhounds, used to living in kennels. After retirement, greyhounds will be exposed to new sights, sounds and experiences which they might not have encountered during their racing career. However, breeders, trainers and kennel staff can help to make this transition to domestic life as smooth as possible by ensuring that greyhounds are well socialised with both humans and animals; have been exposed, in a careful and positive way, to sights, sounds, smells and situations which they might encounter after retirement; and have lead happy and stimulating lives during their racing careers.



*Figure 4: A retired greyhound.*

Socialisation should be started in the first few weeks of a puppy's life. Therefore, breeders and people rearing pups have a vital role to play in giving greyhounds the best start in life and helping to ensure that they can adjust well both to their racing career and to life after retirement. The Kennel Club and Dogs Trust jointly devised the 'Puppy Socialisation Plan'. This is a step by step guide to help breeders and owners with puppy socialisation and includes some useful resources on the subject. Details can be found on the following website: <https://www.thekennelclub.org.uk/getting-a-dog-or-puppy/general-advice-about-caring-for-your-new-puppy-or-dog/puppy-socialisation/>

Trainers will rarely have control over the socialisation stage of a puppy and will usually first encounter a dog when it is already in adulthood. In this case, it is still important to socialise greyhounds and to help them to be relaxed both in the kennel environment and adapt to domestic life more easily. If a greyhound appears to be struggling to adapt or settle in kennels, or when moving into retirement, advice should be sought from veterinary surgeons or canine behaviourists.

Any new experiences should be introduced gradually and with care. If a greyhound shows any signs of fear or distress, the activity should be stopped, or reduced to a point where the greyhound is showing relaxed, happy behaviour (see section 3.4). Greyhounds should be rewarded for relaxed behaviour, where reward should be something which that individual dog enjoys and gains pleasure from. Note that some dogs will enjoy being stroked or given a toy to play with, where others might prefer food treats as reward. Examples of rewards include: giving food treats, stroking, praising or playing with the greyhound.

Ways in which trainers and kennelhands can help greyhounds to be better prepared for a domestic life, include, but are not restricted to, the following:

- Ensure that greyhounds' lives in kennels are enriched and that they have positive and frequent interactions with humans and other dogs and that their physical and psychological needs are met.
- Sometimes walk greyhounds alone, rather than in pairs or groups so that they get used to one to one interaction with humans without the company of other dogs.
- Sometimes walk greyhounds in public areas where they will encounter traffic, other breeds of dogs, the public, etc.
- Place objects which greyhounds might encounter in the home environment near kennels and paddocks so they may be seen and explored. This might include hanging washing outside a kennel, leaning a bike against the paddock fence, placing a sofa or washing machine in an area where dogs can see them. Only objects which are safe for dogs should be placed where dogs have access to them.
- Introducing sounds which greyhounds might encounter in domestic life. Dogs Trust provide online resources for sound therapy in dogs and free downloads of various sounds. These can be accessed at the following website:  
<https://www.dogstrust.org.uk/help-advice/dog-behaviour-health/sound-therapy-for-pets>

### 3.3 The Relationship Between Stress and Greyhound Welfare

Stress is a complex and normal response to situations animals might encounter in everyday life and allows them to react to different situations<sup>[2]</sup>. However, if stress occurs repeatedly or constantly over a period of time, it can impact negatively on an animal's physical, mental and social health<sup>[3]</sup>. Certain aspects of kennelling and kennel husbandry may cause stress in dogs (see table 1). If this is not adequately mitigated, it can lead to compromised welfare.

Prolonged (chronic) stress can cause reduced functioning of the immune system and can also have detrimental effects on many of the body systems, including: the gastrointestinal tract (the gut), cardiovascular system (the heart and blood vessels), urinary system, skin and others<sup>[2][3]</sup>. Chronic stress can also lead to changes in behaviour due to the impact of stress on a dog's mental and social health<sup>[3]</sup>. Recognising the presence of stressors and making changes to reduce the impact of that stressor on a particular dog is important to establishing good welfare. All greyhound kennels should aim to minimise stress through good management, observation and providing for the physical and psychological wellbeing of all greyhounds under their care. A summary of common causes of stress in a kennel environment, and examples of how these might be reduced, are provided in table 1.

*Table 1: Causes of stress in greyhounds and examples of interventions to reduce stress.*

<b>Causes of Stress</b>	<b>Examples of ways to reduce stress</b>
<b>Pain</b>	<ul style="list-style-type: none"> <li>• Good preventative health – dental health, etc.</li> <li>• Treat any injury or illness (including dental disease and corns) promptly.</li> <li>• Seek veterinary advice and ensure pain relief is given when needed.</li> </ul>
<b>Excessive cold or heat</b>	<ul style="list-style-type: none"> <li>• Kennels should be maintained at a suitable temperature to provide comfort (optimum temperature range between 15 – 25°C<sup>[2]</sup>).</li> <li>• Good kennel design (well-insulated to protect against extremes of temperature).</li> <li>• Suitable coats worn as needed in cold weather.</li> <li>• Protection from extremes of weather while in paddocks.</li> </ul>
<b>Sleep deprivation</b>	<ul style="list-style-type: none"> <li>• Lights should be turned off at night.</li> <li>• Avoid placing security lights where they are likely to disturb dogs and/or are likely to be frequently activated during the night.</li> <li>• Ensure a regular 'night time' where there is a period of quiet and darkness so that dogs have set rest times.</li> <li>• Introduce rest times during the day, during which no-one enters the kennel facility.</li> </ul>

<b>Excessive noise</b>	<ul style="list-style-type: none"> <li>• Kennel layout should help to minimise noise (planting of bushes between kennel blocks, for example, can help to reduce sound between blocks).</li> <li>• Avoid excessive noise during work in kennels (crashing of tools, shouting, loud music, crashing food and water bowls, etc.)</li> <li>• Using non-metal bowls can help reduce noise (metal bowls are noisy and emit ultrasonic frequencies).</li> <li>• Use sound insulative material during kennel construction.</li> <li>• Minimising the number of dogs any individual has to pass when entering and exiting the kennel</li> <li>• If loud traffic noise, or other external noise from kennels, look at ways to reduce the impact of this (restful music/radio playing, planting of hedges/shrubs to provide a barrier to noise from roads, etc.</li> <li>• Addressing other factors such as providing greater enrichment may help reduce noise from other dogs (barking, jumping at doors, etc.)</li> <li>• If certain dogs cause disturbance through barking, etc. then seek veterinary/behaviourist advice on possible underlying causes of excessive barking. Anti-bark muzzles, ultrasonic squeakers or other such devices must <b>never</b> be used.</li> </ul>
<b>Disease</b>	<ul style="list-style-type: none"> <li>• Good biosecurity.</li> <li>• Good preventative healthcare (i.e. vaccination and worming).</li> <li>• Good nutrition.</li> </ul>
<b>Injury</b>	<ul style="list-style-type: none"> <li>• Prompt recognition of injury (including careful assessment following races or trials).</li> <li>• Seek timely veterinary advice.</li> <li>• Suitable treatment of injury (support as needed and pain relief provided by a vet).</li> </ul>
<b>Lack of control over one's environment</b>	<ul style="list-style-type: none"> <li>• Environmental enrichment, e.g. places to hide, free movement from inside to outside where possible, use of platforms or barriers to provide places where dogs can hide if they wish but can also seek visual contact with other dogs and the outside environment.</li> </ul>
<b>Lack of predictability</b>	<ul style="list-style-type: none"> <li>• Ensure that things the greyhounds find rewarding and of value are provided consistently and at the same time each day.</li> </ul>
<b>Lack of exercise</b>	<ul style="list-style-type: none"> <li>• Ensure greyhounds have plenty of time outside of their kennel each day, e.g. grooming, treatments, exercise, paddock, playing, etc.</li> </ul>
<b>Lack of contact with people and other dogs</b>	<ul style="list-style-type: none"> <li>• Where possible, greyhounds should be kennelled together provided that a suitable pairing can be made and that the dogs can be housed without muzzling.</li> <li>• Contact with humans is important also and there should be frequent and positive interactions between greyhounds and humans.</li> </ul>
<b>Conflict with other animals</b>	<ul style="list-style-type: none"> <li>• Ensure that greyhounds are paired suitably so that there is not conflict between them.</li> <li>• Avoid feeding dogs together or within direct eye-line of each other, even where they are in different kennels.</li> </ul>
<b>Lack of environmental stimulation or opportunity for dogs to 'use their minds'</b>	<ul style="list-style-type: none"> <li>• Environmental enrichment (see section 3.5)</li> <li>• Provide opportunity for training interactions or solving food puzzles, for example, in order to stimulate the mind.</li> </ul>

### 3.4 Greyhound Behaviour: Recognising Signs of Good and Poor Welfare

Trainers and staff should be familiar with, and able to recognise, behaviours associated with good and poor welfare in greyhounds.

#### 3.4.1 Behaviour indicating good welfare

It is important to be able to recognise when a dog is relaxed and showing signs associated with good welfare. The following behaviours indicate that a dog is happy and relaxed<sup>[4]</sup>. Absence of these behaviours could indicate that the dog is suffering poor welfare (either due to physical or psychological stress) and absence of such behaviours should be investigated:

- The tail should be held in a loose and natural position and wag loosely from side to side.
- Relaxed ears – the ears should not be tense or flattened against the head.
- A relaxed body – the dog should be relaxed in its posture, not tense or stiff. Loose shoulders, and soft eyes without a fixed gaze
- Playful – a relaxed and confident dog is more likely to want to play and leap around. Play ‘bows’ are a good indicator of playful behaviour (Figure 5).



*Figure 5: Playful behaviour can be an indicator of good welfare.*

### 3.4.2 Changes In Behaviour and Behaviours Indicating Poor Welfare

Changes in behaviour may be the first indicators of disease<sup>[2]</sup> or pain and can often help to identify dogs which require veterinary attention. Behaviour also provides information about what an animal is feeling or their emotional state. All Greyhounds must be observed on a regular basis and their behaviour should be constantly monitored.

Where changes are noticed in a dog's behaviour, investigation should be carried out into the cause of the change. This might involve ruling out physical causes (i.e. pain, illness, etc.) and also psychological stressors which may result in certain behaviours. Consultation with your veterinary surgeon may be the first step to investigating a change in behaviour. If no physical underlying reason is found, consultation with a canine behaviourist may be recommended.

Staff should take note and report back to the trainer any changes in behaviour for a particular dog, including any of the following behaviours:

- Change in activity level (more or less active than normal).
- Aggression: towards humans or other dogs.
- Cowering or hiding.
- Excessively licking or chewing particular parts of their body or general over-grooming.
- Repetitive behaviour (for example, circling or bouncing).
- Trembling/shivering.
- Paw lifting.
- Eating faeces.
- Chewing or licking the kennel.

While some of the behaviours listed may not always indicate a problem in a particular greyhound, they all warrant further investigation to determine what the underlying cause of the behaviour might be.

## 3.5 Improving Greyhound Welfare by Enabling Normal Behaviour

### **Documentation:**

An environmental enrichment programme must be in place for all greyhounds at the kennel. Templates for environmental enrichment programmes are provided by GBGB.

When dogs are kept in a kennel environment they are exposed to factors which can compromise their welfare through preventing or restricting normal and natural behaviours. Greyhounds are social animals and require regular and positive interaction with humans and other dogs. They need to be given opportunity to run freely, to exercise, to play, to sniff and to chase. In some kennel environments, greyhounds may have limited opportunity to display these normal behaviours and may experience isolation, boredom and/or frustration. It is essential, therefore, that special measures are implemented in kennels to mitigate the negative effects of kennelling and to maximise opportunities for good welfare.

**Environmental enrichment** describes the process of altering an animal's environment and associated husbandry such that they have more mental and physical stimulation, and greater freedom and opportunity to display normal behaviours and greater choice over what they do.

All greyhound kennels must have an environmental enrichment program in place to ensure that the psychological, as well as physical, needs of the greyhounds are being met. While many greyhound kennels will already be conducting some form of enrichment, in almost all cases there will be opportunities to enhance existing programs and improve the welfare of dogs in those kennels.

While implementing enrichment in a kennel may, at first, seem like a lot of work for the trainer and staff, it can be relatively easily incorporated into the daily running of the kennel and should be viewed as an essential component of care and not as a luxury addition.

### 3.5.1 Implementing Environmental Enrichment in Greyhound Kennels

The following are examples of types of environmental enrichment that can be implemented in greyhound kennels<sup>[5]</sup>. This list is not exhaustive and trainers and kennelhands are urged to seek out other examples of enrichment which might be used in their own kennels. These different forms of enrichment should be incorporated into an environmental enrichment program for all dogs at the kennels:

**Toys:** Greyhounds may benefit from having a toy to play with in the paddock and some will initiate play with a toy on their own. However, toys are often most useful when used during play with a kennelhand or trainer such as throwing or kicking a ball or playing with a 'tugger' type toy. Novelty may be useful too, rather than leaving a toy in a paddock all the time, use different toys and swap them about. Toys should be cleaned properly when being used for different dogs (see guidelines on cleaning and disinfection) and should be safe for the dog to use.



*Figure 6: Greyhounds playing with toys in a paddock.*

**Scent:** Different odours can be introduced into the environment to provide olfactory stimulation for dogs. Options can include providing plants which are non-toxic but scented (i.e. lavender, herbs, etc.) in paddocks for dogs to sniff and explore. Dogs can also be walked in areas specifically designed for allowing sniffing of novel smells (plants and other scents) such as 'sensory gardens' or provide variety in walking dogs in different places, including natural environments, where they might encounter different smells.

**Sound:** Music may be played in kennel areas. According to various studies, dogs spend more time relaxing when classical music is played, compared with other types of music or conversation<sup>[5]</sup>. Music and other sounds which dogs find soothing can provide auditory stimulation while also helping to mask sounds which dogs might find unpleasant. Special attention should be paid to reducing the negative impacts of noise on greyhound welfare. Kennel construction and design, as well as husbandry, should aim to minimise

noise. Greyhounds have highly sensitive hearing and kennels can be extremely noisy places. Therefore, efforts must be made to reduce noise levels in kennels. Examples are provided in table 1.

**Feeding:** Feed can be delivered in a number of different ways, thus providing some variety to feeding time and encouraging normal behaviours such as sniffing and investigating where food is scattered or hidden in paddocks or kennels, for example. Additional ways of delivering food can be used such as providing feeding toys such as 'Kongs'<sup>[6]</sup> which provides stimulation and requires problem solving. Extensive online resources are available on ways to provide enrichment through feeding and can provide useful ideas. Provided the usual diet is given, using different methods of delivering the food will not alter the nutritional value of the diet. It is important that any methods used are safe for the dog. If the dog appears to be distressed, fearful or frustrated by different feeding methods or toys, these should be stopped and other methods tried.



*Figure 7: Providing suitable and safe bones to chew encourages natural behaviours, provides physical and psychological stimulation for a dog in kennels and can also have benefits for dental health.*

**Exercise:** Different types of exercise are described in section 3.6. However, exercise can be a form of enrichment by providing opportunities to perform strongly motivated behaviour, e.g. sniffing, exploring, playing and investigating. This can include exercise in a paddock, off the lead, with another dog or playing with a human carer, it may include walking in different areas where dogs are exposed to different scents and environments (i.e. walking in woodlands or in fields and given opportunities to sniff and explore when being walked on the lead). If kennels have limited opportunities for walking in natural environments, then establishing a sensory garden area with plants to sniff, different substrates and areas to explore can provide good opportunities for displaying normal behaviours.



*Figure 8: A greyhound being exercised in natural surroundings*

**People:** All Kennels must provide regular opportunities for positive interaction between humans and greyhounds. This can include walking, playing, grooming, massage, or just spending time sitting quietly in a kennel or paddock with a greyhound. A study of shelter dogs<sup>[7]</sup> demonstrated a significant reduction in cortisol (the so-called ‘Stress Hormone’) in dogs that received human contact soon after entering a kennel, compared to those that did not. Where dogs are fearful of people, time would be better spent introducing them to people in a slow and patient way and rewarding for relaxed behaviour.



*Figure 9: Playing with, and massaging, greyhounds provide great opportunities for positive social interaction with humans.*

**Dogs:** Dogs are sociable animals that need, enjoy and value company<sup>[8]</sup> and therefore special attention should be paid to providing positive interaction with humans and other dogs. Whenever possible, greyhounds should be housed in compatible pairs to allow for natural social behaviours. Dogs should also be given opportunities to play with other dogs and/or be allowed off the lead together in paddocks, as well as walking in company with other dogs. However, Dogs should only be walked and allowed off the lead together if they are friendly towards one another<sup>[2]</sup>.

**Additions to kennels and paddocks:** In addition to the types of enrichment described above, other adjustments could be made to kennels and paddocks to provide greater choice in the environment. Providing areas of different levels, such as a turfed slope in a paddock or raised bedding areas will provide some choice for dogs, as will providing different types of bedding, or perhaps adding a small fountain, water-spray or waterfall into a paddock during hot weather so that greyhounds can play in the water as well as cool down. As described above, adding plants to paddocks can also provide enrichment to allow for sniffing and exploring, as can different substrates (surfaces) in paddocks.

It should be noted that when adding any toy or other item to a kennel or paddock, that safety of the greyhound must be considered. Any items placed in paddocks or kennels should be safe for dogs to use and should be cleaned between use by different dogs, due to the risk of disease transmission through shared water or toys.

Providing enrichment should improve the welfare of greyhounds in your kennel. If any of the activities or items used as part of an enrichment program result in dogs becoming fearful, anxious or unhappy then they should not be continued<sup>[5]</sup> and alternative forms of enrichment used. Not all dogs will value or benefit from the same type of enrichment so if something doesn't seem to be working then try something else.

### **Greyhound-Greyhound Interaction and Paired Housing of Greyhounds<sup>[9]</sup>**

Whenever possible, greyhounds should be housed in compatible pairs to allow for natural social behaviours. New pairs should be gradually introduced under supervision in a neutral environment where they can avoid one another if they so choose. Some minor or temporary signs of aggression, such as growling or raised hackles might occur on first introduction of unfamiliar greyhounds. However, where more severe or persistent signs of aggression are shown (i.e. biting, chasing pinning down, blocking movement) greyhounds should not be housed together.

Greyhounds should not be housed in units with other greyhounds which they either try to avoid or of which they appear fearful, for example, by avoiding contact, persistently hiding or cowering. Pairs should be chosen to be those that show affiliative behaviour towards one another such as playing or choosing to rest in contact.



### 3.6 Exercise and Training

#### **Documentation:**

A documented exercise regime should be made for all greyhounds at the kennel. Templates for documenting exercise regimes are provided by GBGB.

All greyhounds must be provided with adequate daily opportunities to exercise away from their kennel units. A regular exercise regime is important for both physical and mental wellbeing. Exercise can enhance the dogs' mental state by providing opportunities to perform strongly motivated behaviour such as sniffing, exploring and investigating. The types of behaviour encouraged will depend upon the type of exercise being provided. It is therefore important to provide a variety of exercise types. Exercise can include, but is not restricted to: free running in a paddock area, playing, walking, galloping, swimming or racing.



*Figure 10: Greyhounds being exercised on a gallop and in a field.*

The age, health status and temperament of each greyhound must be taken into consideration when planning the individual exercise plan. Enrichment should be built into exercise regimes where possible.

Facilities for exercising could range from paddocks, gallops, walking machines, swimming pools and public spaces. Greyhounds benefit from a variety of exercise methods. The frequency, duration and type of exercise selected should be chosen carefully to suit the temperament and fitness of the greyhound and the facilities available. Using a variety of exercise methods will provide better stimulation for the greyhound. Exercise methods should not be used which cause fear or distress to the greyhound. All exercise must be conducted responsibly to ensure the safety of the greyhound and that of other animals and people they may encounter.



*Figure 11: Greyhounds being walked together with box muzzles fitted.*

When walking in public spaces, the GBGB would advise that no more than two greyhounds are walked at any given time. However, experienced handlers that are able to comfortably walk more may do so, up to a maximum of six dogs<sup>[10]</sup>, based on common sense and with regard to the type of environment in which the dogs are being exercised. Efforts should also be made to walk greyhounds on their own sometimes such that they become accustomed to walking without other dogs, a situation which is often encountered after retirement.

Greyhounds in all public places shall be muzzled correctly, comfortably and securely and kept on a lead. They must also have a collar and tag with the trainer's name and address inscribed<sup>[11]</sup>. Greyhounds shall not be exercised in parks or other public recreation grounds.

### **Introducing Greyhounds to New Types of Exercise**

Greyhounds should be introduced gradually and positively to methods of exercise which have the potential to be frightening or are likely to cause distress. This is especially important for introducing dogs to walking machines or swimming so that they don't develop fear or aversion to them.

For a walking machine, this could include first walking a dog up to the machine and rewarding it for relaxed behaviour, once this has been done several times, the next session could involve allowing the greyhound to step onto the machine, for which it will be rewarded, and then slowly building up to the greyhound standing on the machine in a relaxed way before you introduce movement of the treadmill. Again, each step should be introduced gradually, with reward given at each stage for relaxed behaviour. If the greyhound continues to show signs of fear or aversion to the walking machine, other exercise methods should be used.



*Figure 12: An example of a treadmill walking machine. Dogs must never be left unattended when on a walking machine.*

When using a walking machine (rotary arm or treadmill), greyhounds must remain under the supervision of the licensed trainer or competent kennelhand at all times. Prior to using a walking machine, licensed staff must be familiar with the general operation of the machine, the emergency stop procedure and should be competent in monitoring greyhounds during exercise such that they will recognise behaviours or physical changes indicating that the exercise should be stopped.

Dogs which show fear or aversion to exercising on a walking machine should not be forced to do so. Instead, a gradual introduction programme should be used to help the dog adjust to this type of exercise. If reluctance persists, alternative forms of exercise should be used.

Greyhounds must not be left unattended at any time when the walking machine is in operation.



*Figure 1.3: A greyhound swimming in a controlled, safe environment.*

Swimming can provide an excellent form of exercise. However, it should not be the sole form of training and should be combined with training methods involving loading of bones in order to develop bone fitness in racing greyhounds. Dogs with an aversion to swimming should not be forced to do so, and a careful program to introduce them to this form of exercise should be used. Dogs should not be swum in excessively cold water, dangerous conditions (seas) or in water courses likely to harbour pathogens or toxic chemicals (i.e. stagnant water, canals, etc.)

When using gallops, greyhounds must remain under the supervision of the licensed trainer or kennelhand at all times. The surface should be free of any hazards that might cause injury to the greyhounds. Therefore, ground inspection and maintenance prior to exercise or training sessions is essential. Using the gallop when the ground is too hard (dry or frozen) or waterlogged, must be avoided. If galloping more than one greyhound at the same time, muzzles should be worn. The size of the gallop depends on the available space, but the whole gallop must be enclosed within safe and secure fencing.

Gallop grounds could be made up of grass, sand, sawdust or a suitable synthetic all-weather material (Figure 14).



*Figure 14: Examples of gallops with different surfaces.*

Greyhounds kept at the kennel shall have access to at least one safe and secure paddock. Dogs should be given access to paddocks at least daily, and be provided with sufficient opportunity to urinate and defaecate away from their kennel area. Paddocks should be enclosed by chain-link or other suitable secure fencing, of a minimum of 2 metres in height.

Paddocks should be free from any hazards that might cause injury. The surface should be free from abrasive materials, grit, etc. which might damage footpads leading to puncture wounds and/or corns. Paddocks should be kept in a clean and hygienic state. See section 3.8.4 on cleaning and hygiene.

The paddock should be large enough to allow each greyhound to perform natural behaviour, including: running, roaming, playing, exploring and interacting with other greyhounds and/or people. Where the kennel facility only allows for small paddocks (such as those shown in figure 15), trainers should ensure that other opportunities for play, exploration, running, sniffing etc. are provided to ensure that greyhounds' physical and psychological needs are met (see section 3.5).

Paddocks need a shaded area and ideally shelter to provide protection from direct sunlight in hot weather and from wind and rain. Where concrete/bitumen type surfaces are used in extremes of weather, dogs should be protected from very hot or very cold (frozen) surfaces which could cause injury and/or discomfort.

Fresh, clean water must be available at all times. To reduce the risk of disease transmission through shared water bowls, water bowls should be replaced with clean bowls and fresh water each time a new dog is placed in a paddock.



*Figure 15: An example of a secure paddock with a concrete surface.*



Figure 16: A secure paddock with a sand surface.

The keeping of any other live animal, bird, rodent, etc that could be used in any way for training, coursing, etc., or the use thereof, is forbidden absolutely at all Licensed kennels

### 3.7 Nutrition and Hydration

#### 3.7.1 Diet and Feeding

##### **Documentation:**

A documented diet regime should be developed for all greyhounds at the kennel to include the dietary components and quantity and frequency of feeding. Templates for documenting diet regimes are provided by GBGB.

All greyhounds should be fed a well-balanced and nutritious diet suitable to meet their individual needs to ensure that they maintain a healthy weight and good body condition. Feeding should be of a quantity and frequency suitable for a greyhound's age, health status, reproductive status and lifestyle and which maintains them in good physical health. Greyhounds must be fed a minimum of once daily. However, at least twice daily feeding is recommended.

A poor diet can cause serious problems with growth, weight, exercise tolerance, performance, reproduction and dental health.

Food intake must be monitored daily and any problems (i.e. increased hunger, reduced appetite, weight loss or gain, regurgitation, vomiting or diarrhoea) should be recorded. Where anomalies are noted, trainers should seek veterinary advice.

Greyhounds should be maintained at a healthy weight. This can be monitored by assessing the greyhound's body condition score (see Appendix 1) and bodyweight. Bodyweight shall be recorded, as a minimum, on a weekly basis. More frequent assessment of bodyweight is preferable for early detection of weight changes and when changes are made to the diet. Where unplanned weight loss or gain is identified, the diet regime should be modified to ensure greyhounds are maintained in optimum body condition. Veterinary advice should be sought where greyhounds fail to respond to modification of the diet regime or if there are sudden changes in bodyweight or body condition. Note that dehydration can cause rapid loss of bodyweight. Changes in ambient temperature can affect energy requirements and appetite and so diets should also be reviewed in light of environmental changes<sup>[12]</sup>.

Detailed information on greyhound nutrition is provided in Appendix 2.

#### *3.7.1.1 Storage and Preparation of Food*

Correct storage of meat and other feedstuffs is essential to prevent spoilage and access by vermin. The source of feedstuffs is also important to minimise the risk of contaminants which could impact on the health of greyhounds and/or which may result in a positive result to drug testing.

The following are guidelines for hygienic storage and preparation of food:

- Frozen food should be stored in a functional freezer (monitor temperature to ensure feed remains frozen), fresh food in a fridge ( $< 4^{\circ}\text{C}$ ) or, for dry food, in a closed container to prevent entry of water or vermin (including slugs and snails).
- Meat should be cooked above  $70^{\circ}\text{C}$  (ideally boiling) before feeding (uncooked meat can harbour pathogenic bacteria that are normally killed during cooking).
- Cool rapidly (to  $20\text{--}30^{\circ}\text{C}$ ) before serving.
- Cool rapidly to below  $4^{\circ}\text{C}$  if storing cooked food. Use flat trays to allow more rapid cooling.
- When reheating, heat to more than  $70^{\circ}\text{C}$ , and cool quickly to serve.
- Maintain general good hygiene in food storage and preparation areas.

#### *3.7.1.2 Diet Constituents*

A high quality commercial (complete) diet will generally provide the vitamins and minerals required for racing greyhounds. Any additions to the diet should be carefully planned with the assistance of a nutritionist or veterinary surgeon, taking into account the specific needs of individual dogs. However, where complete foods are mixed with home-made diets such as addition of meat and/or vegetables, the diet may no longer be balanced. If home-prepared diets are used, the whole diet must be carefully balanced to ensure that the protein, fat and carbohydrate components of the diet are correctly balanced<sup>[1,2]</sup> for optimum health and performance and that it contains appropriate quantities of all necessary vitamins and minerals (see Appendix 2).



*Figure 17: An example of a complete, dry diet for greyhounds.*

All-meat (muscle meat without bone), or high meat content, diets can be high in phosphorus and deficient in calcium<sup>[13]</sup> and are not suitable as the sole food source for dogs. Very high protein diets can be detrimental to health and performance of greyhounds.

##### *3.7.1.2.1 Meat*

Where fresh meat is fed as part of a balanced diet, a number of factors should be considered:

- Refrigeration facilities shall be provided where fresh and/or cooked meats are provided.
- Any meat fed to greyhounds should either be deemed fit for human consumption or category 3 (unstained) meat (according to animal By-Products (ABP) – REGULATION (EC) No 1069/2009 of the European parliament and of the council of 21 October 2009)
- Animal By-Products should only be sourced from establishments registered with Animal and Plant Health Agency (APHA).

- Care should be taken when defrosting meat to ensure it is thoroughly defrosted but not allowed to stand at room temperature long enough to allow spoilage.

See Appendix 2 for detailed guidance on feeding of Animal By-Products.

#### 3.7.1.2.2 Bread

If bread is used as part of a greyhound's diet, care must be taken to ensure that no bread containing poppy seeds are fed to greyhounds. Poppy seeds contain opiates and dogs which have access to food containing poppy seeds are likely to test positive for opioids.

*Figure 18: Bread with poppy seeds (image source: littlerock.com.mt)*



It should also be noted that some dogs have a sensitivity to wheat-based products which includes, amongst others, many dry commercial diets, pasta and bread. This may manifest as loose stools/diarrhoea, mucous or blood in stools or skin irritation (itching, licking and/or face rubbing). If wheat sensitivity is suspected, veterinary advice should be sought and other carbohydrate sources explored.

#### 3.7.1.2.3 Feed Supplements

Trainers are strongly advised to seek veterinary recommendation on the use of supplements in racing greyhounds. Human supplements and products sourced from the internet or over the counter, may contain inappropriate or even dangerous substances that are detrimental to canine health. These may also result in a positive drug test. A veterinary surgeon with experience in greyhound nutrition, or a canine nutritionist, should be consulted when deciding whether to add a particular supplement to a greyhound diet. See Appendix 2 for more information on feed supplements.

It is solely the responsibility of the trainer to ensure that all the greyhounds in his or her care are free from any substance that may affect the performance or prejudice the welfare of the greyhound.

#### 3.7.1.2.4 Electrolytes

Provided a suitable and well balanced diet is fed to greyhounds, and that there is no concurrent illness, the body will generally maintain a good electrolyte balance without the need to add further electrolytes to the diet.

While electrolytes are frequently given to greyhounds during hot weather conditions, they are not generally necessary to rehydrate a greyhound following exercise in warm weather. Greyhounds have different heat loss mechanisms to humans and rely on evaporation of water from the mouth and airways for cooling, rather than sweating. Therefore, greyhounds lose pure water through panting during hot weather but conserve electrolytes. Therefore, during hot weather conditions, the focus should be on ensuring adequate hydration and replacing plain water rather than electrolytes (see Appendix 2).

Electrolytes may, however, be needed where dogs experience vomiting and diarrhoea, during which electrolytes can be lost, leading to electrolyte imbalances. Electrolyte formulations intended for dogs must be used in this case as human sports drinks are not a suitable substitute. Electrolytes can be added to feed or water. However, adding electrolytes to water may reduce water intake in some dogs. Veterinary advice must be sought for a dog with vomiting and diarrhoea so providing these in the feed may be preferable.

### 3.7.2 Hydration

Maintaining adequate hydration in greyhounds is essential for health, welfare and performance. Dehydration has been identified as a factor in a number of serious health problems in greyhounds including cramp, sudden death (from intra-abdominal haemorrhage and acute cardiac failure) and post-race distress<sup>[14]</sup>. Blood tests taken from dogs which have suffered these conditions have shown dehydration to be present in all cases<sup>[14]</sup>. Dehydration can also exacerbate other conditions such as heat stress<sup>[15]</sup>. Careful attention must be paid to delivering adequate fresh, clean water to greyhounds both at home and at the race track.

Fresh, clean water **MUST** be available to greyhounds at ALL times.

All greyhounds must have free access to clean, fresh water at all times, using a water bowl, bucket or other container/system which allows constant access to clean, fresh water. Water provided in paddocks should be clean and water containers changed each time a new greyhound is put out for exercise in order to limit the spread of infectious disease. If muzzles are used, the water must be provided to sufficient depth to allow drinking through a basket muzzle. However, muzzles should not be used routinely in kennelled dogs as they can restrict a dogs' ability to express normal behaviour and may also reduce water intake.

Where two dogs are kennelled together, more than one water bowl may be made available in different parts of the kennel to ensure that both dogs can access at least one water bowl at all times. Dogs which tend to knock over water bowls should be provided with a suitable container or drinking system that prevents this. Knocking over of water should not be a reason to withhold water from a dog (see Appendix 2 for further information on hydration).

Signs of dehydration include: positive skin tent (see Appendix 2 for more information); sunken eyes; weight loss; lethargy; and dry or tacky mucous membranes (gums)<sup>[16]</sup>. However, once signs such as obvious skin tent, sunken eyes and lethargy become apparent, dogs are already moderately to severely dehydrated and will require veterinary treatment to correct dehydration.



*Figure 19: A greyhound drinking.*

Sudden loss of bodyweight can indicate dehydration which can be dangerous if not treated. Any sudden weight loss, or other signs of dehydration, must be investigated by a veterinary surgeon.

Water intake should be monitored to ensure it is neither reduced nor excessive. Although water intake in a healthy dog can vary significantly due to availability of other sources of water (i.e. water added to food) or the amount of water lost during panting, etc., any excessive or increased water intake can indicate a health problem. In some conditions there may be excessive drinking together with dehydration, where a dog is unable to absorb water in the normal way. If there are any concerns about dehydration, veterinary advice must be sought immediately as intravenous fluids may be required to correct dehydration.



*Figure 20: Water bowls in a holder to reduce the risk of spillage.*

### 3.8 Preventative Healthcare

#### **Documentation:**

A preventative healthcare plan should be developed for each greyhound at the kennel.

The preventative healthcare plan will incorporate:

- A biosecurity plan (including vaccination, parasite control, quarantine of new dogs, routine cleaning and disinfection of kennels and equipment, and pest control)
- General healthcare (including dental care, grooming, medication control and storage and injury and health monitoring)

Templates for Preventative Healthcare Plans are provided by GBGB.

Preventative healthcare includes all activities which help to maintain greyhounds in optimum health.



*Figure 21: A greyhound in good condition.*

#### 3.8.1 Biosecurity

Kennel biosecurity includes all routine activities carried out at the kennels with the purpose of reducing the number of infectious agents in the environment to an acceptable level. The purpose of biosecurity is not to create a sterile (germ-free) environment, but to reduce the risk of infectious diseases entering kennels and, if this does occur, minimise spread of infectious disease within kennels. Routine biosecurity measures should be incorporated into the day-to-day running of the kennel, allowing the kennels to operate as normal. Routine biosecurity measures should be documented in the biosecurity plan.

#### **Routine Biosecurity Measures at Kennels:**

- Maintain clean kennels (daily cleaning routines with appropriate disinfectant, regular picking up of faeces/spilt food, regular changing/cleaning of bedding)
- Hygienic and correct food preparation and storage
- Good vermin control
- Quarantine all new dogs entering the kennel
- Good control of internal and external parasites
- Appropriate vaccination of all greyhounds in the kennel
- Good nutrition and adequate hydration
- Minimise stress in greyhounds
- Manage the number of dogs kept at a kennel to ensure optimum care
- Ensure adequate kennel ventilation
- Good hygiene management at the track
- Good staff hygiene (regular hand-washing, cleaning footwear/clothes, etc.)

##### *3.8.1.1 Quarantine of New Arrivals*

When a new dog is brought into a kennel, it is recommended that it undergoes a period of quarantine. This should allow sufficient time for the dog to be monitored for signs of infectious disease without having direct contact with other dogs in the kennel. It also allows for the dog to adjust to the new kennel routines, diet and germs before being directly introduced to the rest of the kennel. Quarantine also allows time for any disease which the dog may have contracted before entering the kennel, to become apparent. Quarantine therefore has the dual purpose of protecting the new arrival from sudden exposure to germs from resident dogs and to protect resident dogs from germs from the new arrival.

Greyhound kennels are required by the GBGB to have an isolation kennel and this may also be used as a place for quarantining new arrivals (provided the two are not carried out at the same time). The quarantine period also provides an ideal opportunity to give vaccinations and parasite treatments to new dogs entering the kennels<sup>[2]</sup>, before they are mixed with dogs in the main kennel area. The isolation kennel used must meet GBGB standards.

A minimum seven-day quarantine period is recommended, as this provides sufficient time for most infectious diseases to become apparent. Careful monitoring of the health of the new arrival should be maintained throughout the quarantine period.

##### *3.8.1.2 Isolation of Sick Dogs*

Isolation is similar to quarantine but involves the separation of diseased dogs (or possibly infected dogs) from healthy dogs<sup>[2]</sup>. The aim of isolation is to limit spread of an infectious disease within the kennel. Where dogs are housed in pairs, the kennel mate of a sick dog should also be put into isolation. For further information on isolation see Appendix 4.

Facilities should be available at all kennels to ensure that dogs suspected to be suffering from an infectious disease can be adequately isolated from other dogs. Separate equipment and utensils must be provided for use in isolation units. A colour-coding system may be used so that equipment belonging in the isolation area is easily recognised.

No greyhound showing signs of disease, or one which has had direct contact with such a dog (i.e. the kennel mate of an ill greyhound), should be taken to a race track or schooling track. Running a greyhound which is suffering from ill-health could significantly worsen its condition and also spread the disease to other dogs at the stadia.

### Isolation Facilities

All greyhound kennels should have suitable isolation facilities available at all times. These must be built to GBGB standards for residential kennels and should be clean and available for use at short notice.

#### 3.8.1.3 Vaccination

Any greyhounds in licensed Kennels must be vaccinated with the core vaccines against canine parvovirus, canine distemper, canine viral hepatitis (adenovirus) and leptospirosis, in accordance with the manufacturers' instructions.

Consideration should also be given to other non-core vaccinations such as *Bordetella* (kennel cough). This can be used in prevention and, due to rapid onset of immunity, can also play a role in controlling an outbreak of kennel cough in a kennel environment<sup>[2]</sup>.

All vaccinations shall be supplied and administered by a qualified veterinary surgeon and the vaccination certificate (or passport) shall be signed by that veterinary surgeon following administration of a vaccine. Only vaccinations that are approved by the Veterinary Medicines Directorate (VMD) shall be used.

All greyhounds at licensed kennels must have a valid and up-to-date record of vaccination. Full records of all vaccinations and other veterinary treatments for each greyhound, should be available for inspection.

Greyhounds are required to have had full inoculations against:

- Distemper
- Viral Hepatitis
- Leptospirosis
- Parvovirus

Any additional vaccines should be provided based on veterinary advice and local risk factors.

Where no previous history of vaccination is available, it should be assumed that the dog has not been vaccinated and therefore, a primary vaccination course should be given in accordance with the manufacturers' instructions.

The effectiveness of vaccination depends upon the dog mounting an adequate immune response to the vaccine. Therefore, vaccines may be less effective when given to dogs which: are in poor body condition; are suffering from illness or high parasite burdens; or are highly stressed<sup>[2]</sup>. Dogs should not be presented for vaccination immediately after exercise but should be given adequate time to properly cool. Where dogs have poor body condition, other illnesses, etc. veterinary advice should be sought regarding the timing of vaccination.



Figure 22: Vaccination may be less effective when given to dogs with a raised body temperature. Greyhounds should be allowed to fully cool after exercise before vaccination is given.

#### 3.8.1.4 Parasite Control

A regular programme for monitoring, prevention and treatment of internal and external parasites should be in place at all licensed kennels and this should be documented as part of the preventative healthcare plan. The parasite control program must be planned in conjunction with a veterinary surgeon, taking into account the specific risks for each kennel and the parasites which should be targeted in parasite treatment and prevention programs.

Further information on common parasites and parasite control is provided in Appendix 5.

Good kennel management and cleanliness help to reduce the risk of high parasite burdens, as part of an effective parasite control program:

- Pick up faeces as soon as possible,
- Correct disposal of faeces and soiled bedding in accordance with local environmental regulations,
- Regular cleaning and disinfection of kennels,
- Regular cleaning and/or changing of bedding.

A routine parasite control program should be in place for all dogs in the kennel as well as a specific protocol for new dogs entering the kennel. All parasite control programs should include: management factors which help to control parasites in the kennel environment (regular picking up of faeces, washing of bedding, cleaning kennels, etc.) as well as treatments applied directly to the dogs. Veterinary advice must be sought in developing a suitable control program. Consideration may also be given to monitoring internal parasites through worm egg counts in faecal samples. Trainers should contact their veterinary surgeon for more information on this.

Failure to control parasites in dogs will cause deterioration in health and performance and can also pose a health risk to humans who have contact with infected dogs

Licensed veterinary medicines must be used for parasite treatment. Parasite treatments which have a UK license for use in dogs are not subject to doping control. Products such as sheep dip or other un-licensed formulations should never be used. Appendix 5 provides a summary of some of the most commonly used products. However, as this is a rapidly growing market, veterinary advice should be sought on selecting the most appropriate product for your dogs.

#### 3.8.1.5 Fleas

Fleas can present a serious problem in greyhound kennels and must be controlled. In order to successfully control fleas, treatment or management of the greyhounds AND the environment is usually necessary. Flea infestations can have major health and welfare impacts on greyhounds causing: skin irritation, increased risk of secondary skin problems, and transmission of tapeworm. Very severe infestations, particularly in puppies, can cause anaemia<sup>[17]</sup>. Once a flea infestation becomes established in a kennel it can be difficult and costly to control.

A routine flea control program should be in place for all dogs in a kennel. Any new arrivals should also be treated with an effective flea treatment during the quarantine period (see Appendix 5). It is preferable to use a product which works on both adult fleas and on immature stages of the flea in order to achieve optimum control. As fleas spend a large part of their life cycle away from the dog, the environment should also be treated (regular washing of beds, maintaining a clean kennel, removal of faeces).

Staff should be aware of the signs of flea infestation so that these can be quickly recognised and treated. Signs include: presence of live fleas and/or flea-dirt on the skin, rubbing, scratching or chewing the coat or skin, with the tail-base often targeted in heavy flea infestations. Scabs, hair loss or inflamed skin may also be present. In heavy flea infestations, a dog's gums may appear pale due to anaemia<sup>[17]</sup>. Note that some dogs may suffer from flea allergies which make them highly sensitive to flea infestation and may result in more severe irritation, obvious skin changes (red, inflamed skin, scabs, and/or thickened skin, together with thinning or loss of hair). These changes are most commonly seen near the base of the tail and lower back area, sometimes on the belly and thighs of the dog<sup>[17]</sup>.

Flea dirt can be seen by parting the hair. Small, black specks may be seen in the hair and on the skin (figure 23(A)). Flea dirt is easy to see in a light coloured dog but careful examination is needed in black dogs. A flea comb can be useful for identifying live fleas and/or flea dirt. To confirm these are flea dirt, place on a wet tissue and rub the specks over the surface. Red marks should be left from the blood contained in the flea dirt (figure 23(B)).

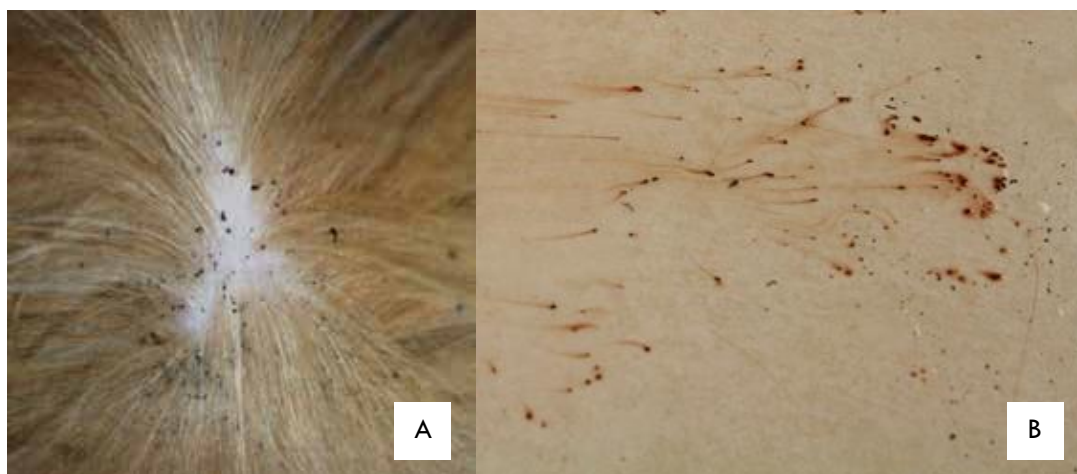


Figure 23: (A) Flea dirt seen in the coat of a dog with flea infestation. (Image source: [www.pinterest.com](http://www.pinterest.com)). (B) A test for flea dirt: place black specks on wet surface/tissue and they should leave red marks/trails. (Image source: [epetstore.co.za](http://epetstore.co.za))

#### 3.8.1.6 Ticks

Ticks can transmit diseases to dogs, such as Lyme Disease<sup>[18]</sup> and, in sufficiently high numbers, can cause other health issues such as anaemia. The risk from ticks depends largely on geographical location and access to areas where ticks are likely to breed. Veterinary advice on your local tick and disease situation

should be sought when planning tick control and prevention. Many, but not all, flea treatments will also provide cover against ticks. Good grooming and observation should help to identify ticks. Any ticks should be removed immediately using a tick removing hook. Further information on tick treatments and removal are provided in Appendix 5.



Figure 24: A tick attached to a dog's skin. (Image source: dogtime.com)

#### 3.8.1.7 Lice and Mites

Other external parasites, such as lice or mites, that cause sarcoptic mange, demodectic mange (demodex) and ear-mites, may be suspected based on obvious clinical signs. However, diagnosis and treatment should be carried out and advised by a veterinary surgeon. Most mites cannot be seen with the naked eye and therefore require specific diagnostic tests.

#### 3.8.1.8 Lungworm (*Angiostrongylus vasorum*)

In recent years Lungworm (*Angiostrongylus vasorum*) has spread into new areas in the UK and has become more widespread<sup>[2]</sup>. Treatment of dogs against *A. vasorum* is recommended in areas endemic for this parasite and where dogs may have the opportunity to eat slugs, snails or frogs (the intermediate hosts of the parasite). Where routine prevention is deemed necessary, this requires regular treatment with a product licensed against *A. vasorum*. Trainers should formulate a lungworm prevention plan with help from their veterinary surgeon. A product with action against *A. vasorum* should be given to new arrivals at the kennel as previous risk of exposure to lungworm will be unknown (see Appendix 5 for further information). Treatment of a known infection of lungworm requires a different dosing regimen compared to prevention. If you suspect lungworm infection, veterinary advice must be sought.

#### 3.8.1.9 Lungworm (*Oslerus osleri*)

In some kennel environments, another lungworm (*Oslerus osleri*) may pose a risk to dogs. This parasite tends to occur more commonly in the kennel environment and is less commonly seen in pet dogs kept in a home environment. The treatment for this particular parasite is very specific and veterinary advice should be sought if this is suspected. Infection generally causes coughing which may be seen in a number of dogs in a kennel. As such, infection with *O. osleri* may be confused with kennel cough. See Appendix 5 for further information. Veterinary advice must be sought to investigate the underlying cause of a coughing dog.

#### 3.8.1.10 Round worms



Figure 25: Typical appearance of canine roundworms. (Image source: dogsaholic.com)

Roundworms are a common problem in greyhound kennels and can lead to significant health issues in dogs as well as posing a risk to human health. Most licensed worming treatments for dogs will be effective against the common roundworms. An effective and routine treatment and prevention program against roundworm should be developed with assistance from your veterinary surgeon. A specific worming protocol should also be used for dogs entering the kennel (see Appendix 5 for more details). Young dogs and puppies often have heavy infestations of intestinal roundworms.

#### 3.8.1.11 Hookworm

Hookworm (*Ancylostoma caninum*) can become a problem in kennels if general hygiene (i.e. picking up faeces) is not maintained, where inadequate parasite treatment is given and/or where animals have access to eating rodents. Pups can become infected with hookworm through the milk of their dam while adult dogs can be infected: by eating rodents; by eating hookworm larvae present in the environment (i.e. in paddocks); or by hookworm larvae infecting dogs by passing directly through the skin on the feet. Good kennel hygiene (clearing and disposing of faeces quickly and effectively), preventing dogs having access to rodents, and good worming protocols in pregnant bitches will help to reduce the risk of hookworm infestation. Hookworm causes bleeding into the intestine of the dog and, if not treated, will result in anaemia. This may appear as reduced performance (low exercise tolerance or tiring easily), dogs may appear quiet or subdued and gums may appear pale. Veterinary advice should be sought regarding prevention and treatment of hookworm in kennels. Further information is provided in Appendix 5.

#### 3.8.1.12 Tapeworm

Dogs will often become infected with tapeworm through eating fleas. Therefore, flea control is an important factor in controlling tapeworm. Regular treatment with products which act against tapeworm, as well as good flea control, is important to control this parasite. Some of the commonly used spot-on treatments for fleas and worms do not work against some of the common tapeworms. Therefore, wormers should be selected to ensure that adequate cover for tapeworm is provided. Seek veterinary advice on tapeworm control. Further information on tapeworm and its control is provided in Appendix 5.

### 3.8.2 Pest Control in the Kennel

It is important to maintain good pest control in the kennel environment as certain pests can transmit infectious diseases and/or parasites to dogs or humans at the kennels. Key to control of pests is to minimise the presence of food which may attract them. Cleaning up any spilt food immediately, proper disposal of waste food (and soiled bedding), regular cleaning of faeces and proper storage of food will all help to minimise pest infestations in the kennel. If rodenticides (rat and mouse poisons) are necessary in order to control rodents, then these must never be placed in areas where dogs can gain access to them and should always be placed inside a suitable container as recommended by the manufacturer.

If a greyhound is ever suspected of eating rodenticides they should be taken immediately to the vets, along with the product packaging so that the vet is able to see what has been consumed and therefore provide appropriate treatment.

Snail and slug baits are also highly toxic to dogs and should not be used in kennel facilities. Where there are concerns about the transmission of lungworm (*A. vasorum*), other management can be used to minimise contact between slugs/snails and greyhounds. See Appendix 5 for further information.

### 3.8.3 Food Preparation and Storage

#### 3.8.3.1 Food preparation facilities

Kennels that house more than four greyhounds must have dedicated food preparation and storage facilities. Food preparation facilities should consist of, as a minimum:

- work surface;
- washing facilities connected to a draining system;
- running cold water; and
- access to a sufficient quantity of hot water.

Running cold water must be available for drinking vessels and access to hot water for washing kitchen utensils, feeding bowls and cleaning as required. Any newly built kennels should have sufficient on-site running hot and cold water. Electrical and gas appliances must be used and maintained in accordance with the manufacturer's recommendations.

Food preparation areas and facilities should be included in routine cleaning and disinfection protocols to ensure this area remains clean. Raw meat must always be handled away from areas where cooked food is prepared to avoid cross-contamination.



Figure 26: An example of food preparation facilities.

#### 3.8.3.2 Food Storage and Preparation

Proper food storage and preparation is important to minimise the risk of food-borne disease affecting greyhounds. Guidelines for food storage and preparation aimed at preventing accumulation of harmful bacteria on food which could cause sickness are provided in section 3.7.1.1 of The Code and in Appendix 2.

All food stored at the kennels shall be protected from rodents and other pests and must be free from contaminants or hazards. Feed should be kept in clean, safe containers which are insect and rodent proof. Dry and perishable feed shall be stored indoors, off the floor and away from units and paddocks.

If any dogs are being medicated in the food, extra care should be taken to ensure that the wrong dog does not receive medicated food and that there is no cross contamination with feeds of racing dogs, which could lead to a positive drug test result.



Figure 27: An example of a suitable food container. (Image source: The Plastic Box Company Ltd).

Where fresh and/or cooked meats are used, refrigeration facilities must be provided. Where animal by-products are used, attention is drawn to regulations that relate to the sale and use of animal by-products (see Appendix 2).

#### 3.8.4 Cleaning and Hygiene

##### Definitions of Cleaning and Disinfection

**Cleaning** is used to reduce the build-up of infective material in the environment by physically removing pathogens and the dirt and debris that they grow in or on. Cleaning is carried out using water (preferably hot) with detergent. Any detergent used should be suitable for use in animal housing.

**Disinfection** is used to kill any pathogens that remain after cleaning. Disinfection without proper cleaning will not be effective. Disinfectants approved for use in animal housing should be used and manufacturer's instructions followed.

This section refers to routine cleaning of the kennels to keep infectious agents at an acceptably low level and to maintain a safe and comfortable environment for the greyhounds in the kennel. Cleaning protocols and routines (frequency, products used, staffing, etc.) should be documented within the Preventative Healthcare Plan under Biosecurity. Routine cleaning includes:

- Routine cleaning and disinfection of kennels, paddocks and common areas.
- Cleaning of equipment (food/water bowls, racing coats, muzzles, etc.)
- Staff hygiene and protective clothing.
- Periodic deep cleaning and disinfection.

##### 3.8.4.1 Routine Cleaning and Disinfection of Kennels

A routine cleaning plan should be in place for kennels, paddocks and common areas and this should be documented in the Biosecurity Plan. Routine cleaning of kennels should be divided into daily 'spot' cleaning of kennels and a weekly clean and disinfection of the whole kennel.

#### 3.8.4.1.1 Daily 'spot' cleaning of kennels.

This is an effective method to maintain hygiene and comfort in kennels which can be used only where the same dogs continue to occupy a certain kennel and where all dogs are healthy. It is not suitable where different dogs are moving into a kennel or where disease is present in a kennel. 'Spot' cleaning should be performed at least daily, but more frequently if necessary in order to maintain an hygienic and comfortable kennel for the dog.

'Spot cleaning' involves removal of faeces, spilt or uneaten food, vomit or other solid organic matter (i.e. all visible dirt) and then applying a suitable disinfectant to the areas from which organic material has been removed. Provided the disinfectant does not require rinsing (check manufacturer's instructions), dogs can be returned to the kennel once the area is dry.

"Spot cleaning" is an effective and time-saving method of maintaining kennel hygiene and comfort, when applied properly. It can also reduce stress on the dogs by minimising disruption and noise associated with full-cleaning and disinfection and also by maintaining familiar scents in the kennel area which may be comforting for dogs.

#### 3.8.4.1.2 Weekly cleaning and disinfection of kennels

On a weekly basis, each kennel should be thoroughly cleaned and disinfected. Dogs must be removed from the kennel before cleaning commences. All organic material is removed (faeces, spilt or uneaten food, vomit, etc.) and all surfaces in the kennels are cleaned with water and detergent. Once all surfaces are clean, a suitable disinfectant should be applied according to manufacturer's instructions. This weekly clean and disinfection will involve more disruption than spot-cleaning, but is necessary to prevent excessive build-up of pathogens in the kennel environment. The bedding area should also be cleaned and bedding replaced. Full cleaning and disinfection of kennels should always be done where there is a change in occupancy (i.e. a dog is moved into a new kennel).

Further information on the process of cleaning and disinfection is provided in Appendix 4.

#### 3.8.4.2 Routine cleaning and disinfection of paddocks and common areas

As these areas are shared by different dogs on a regular basis, daily cleaning and disinfection of all surfaces is necessary. This should involve removal of faeces and other organic matter from all areas at least daily. In shared areas such as paddocks, faeces and other organic matter from one dog should be removed before a different dog enters the paddock. The whole paddock (or other common area) should then be cleaned with water and detergent and disinfected. No dogs should be present in the areas being cleaned and dogs should not return until the area is dry.

See Appendix 4 for more detail.

#### 3.8.4.3 Routine Cleaning and Disinfection of Equipment

There are many objects in the kennel environment which may become contaminated with organic matter and could harbour infectious agents. Routine cleaning and disinfection of items and equipment in the kennels should be included in the biosecurity plan. The following routine for cleaning and disinfection for some commonly used items is recommended:



*Figure 28: A kennel block after cleaning*

#### 3.8.4.3.1 Bedding:

- Bedding should be checked daily and changed regularly (minimum of weekly or sooner if soiled) to avoid build-up of dirt and parasites and to ensure that the greyhound has a clean, comfortable and dry bed.
- Any soiled or wet bedding should be removed at least twice daily.
- Re-usable bedding material should be washed at minimum 60°C (or the hottest allowable for the material).
- Disposable bedding should be refreshed often enough to maintain a good level of comfort for greyhounds.

#### 3.8.4.3.2 Food and Water Bowls:

- Individual food and water bowls should be provided for each dog as these can enable transfer of pathogens between dogs if shared.
- Food bowls should be kept clean and removed from the kennel for cleaning after each feed with warm water and a suitable detergent (such as washing up liquid). Bowls should be rinsed with plain water to remove detergent.
- Food and water bowls must also be disinfected after each use. A disinfectant approved for this use, such as Anigene HLD<sub>4</sub>V<sup>[19]</sup>, may be used for this purpose, provided it is prepared (diluted) and used in accordance with manufacturers' instructions.
- Water bowls in paddocks should be changed each time a different dog is put into the paddock and should be cleaned and disinfected daily and between use by different dogs (as for food bowls)

#### 3.8.4.3.3 Other Items

- Muzzles and toys should be washed and then placed in a suitable disinfectant solution (As for food and water bowls, Anigene HLD<sub>4</sub>V<sup>[19]</sup> may be used, provided the manufacturer's instructions on preparation and dilution are properly followed) between use in different dogs, or at least weekly if being used by the same dog.

- Race jackets should be washed at a minimum of 60°C whenever dirty.
- Work clothing/overalls should be washed at a minimum of 60°C after removing obvious soiling.
- Boots should be cleaned and then the soles placed in disinfectant solution for the correct contact time specified by the manufacturer (daily, in a routine situation. If dealing with a dog in quarantine or a kennel under infectious disease conditions, more regular cleaning and disinfection is necessary (see Appendix 4).

*Table 2: MINIMUM frequency of cleaning and disinfection in kennels, paddocks and common areas. Note that more frequent cleaning, especially picking up of faeces and removal of wet/soiled bedding, should be carried out where possible.*

<b>Minimum frequency of cleaning and disinfection</b>	<b>Items/areas</b>
<b>When visibly dirty or soiled</b>	<ul style="list-style-type: none"> <li>• Racing jackets</li> <li>• Kennel coats</li> <li>• Re-usable bedding</li> </ul>
<b>Twice Daily</b>	<ul style="list-style-type: none"> <li>• Removal of excreta from kennels (more often where necessary)</li> <li>• Remove any wet/soiled bedding (more often where necessary)</li> <li>• Removal of excreta from paddocks (more often if necessary and between different dogs in paddocks)</li> <li>• Food Utensils (or after each feed)</li> <li>• Feeding bowls (or after each feed)</li> </ul>
<b>Daily</b>	<ul style="list-style-type: none"> <li>• Routine 'spot' cleaning and disinfection of kennels</li> <li>• Add new bedding to replace any removed during cleaning</li> <li>• Clean and disinfect kennel block corridors/passageways and other communal areas</li> <li>• Clean and disinfect paddocks</li> <li>• Kitchen</li> <li>• Muzzles</li> <li>• Vans and travel cages (after each use)</li> <li>• Cleaning equipment (brushes, squeegees, cloths, etc.)</li> </ul>
<b>Weekly</b>	<ul style="list-style-type: none"> <li>• Routine full cleaning and disinfection of kennels</li> <li>• Replace bedding</li> </ul>
<b>Monthly</b>	<ul style="list-style-type: none"> <li>• Deep cleaning and disinfection of all kennels, communal areas and paddocks</li> </ul>

#### *3.8.4.4 Periodic Deep Cleaning and Disinfection*

Routine cleaning and disinfection will form part of the daily and weekly routine in the kennels to maintain a comfortable and safe environment for greyhounds and to help maintain good air quality. In addition to routine cleaning and disinfection, a periodic deep clean and disinfection should be in place to prevent excessive build-up of infectious agents which may impact on the health of the greyhounds. It is recommended that periodic deep cleaning and disinfection is conducted in each area of the kennels monthly. Periodic deep cleaning and disinfection routines should be outlined in the Preventative Healthcare Plan under Biosecurity.

Periodic deep cleaning and disinfection should be distinguished from the cleaning and disinfection which is carried out as part of a response to an infectious disease outbreak. For periodic deep cleaning and disinfection, the whole kennel does not need to be cleaned and disinfected at the same time, but different kennel blocks can be done at different times, as long as each area is cleaned and disinfected according to the routine outlined in the biosecurity plan. Further details on cleaning and disinfection are provided in Appendix 4.

During disinfection, good ventilation should be maintained to ensure that strong fumes do not accumulate. Cleaning and disinfection products used must be suitable for use in animal housing and compatible with other products used in the kennels. Never mix different cleaning products together. Almost all disinfectants are ineffective in the presence of organic material such as faeces, urine and food waste, so physical cleaning with water and detergent prior to disinfection is essential.

Dogs must always be removed from the kennel during cleaning and disinfection.

Protective clothing and observance of health and safety regulations is very important due to the hazards of disinfectant spraying in enclosed spaces. While pressure washing can sometimes be useful, it must be used with caution as it can aerosolise disease pathogens<sup>[2]</sup>.

Due to the amounts of water and disinfectant that are likely to be used during deep cleaning, consideration must be given to the ways in which dirty water will leave the premises, including the possible contamination of water supplies.

Products containing Phenol, Chlorophenol, Chlorocresol or Chloroxylenol must not be used as this substance is toxic in greyhounds. For example: Jeyes Fluid.

Recommended disinfectants include: Anigene HLD<sub>4</sub>V<sup>[19]</sup>, Anistel<sup>[20]</sup> and Virkon S<sup>[21]</sup>



Figure 29: Recommended disinfectants for use in kennels (manufacturer's instructions must always be followed when preparing and using disinfectants (Anigene<sup>[19]</sup>, Anistel<sup>[20]</sup>, Virkon-S<sup>[21]</sup>)

### 3.8.5 Staff Hygiene and Protective Clothing

Under routine biosecurity measures, staff should maintain a good level of hygiene in order to minimise the risk of: bringing infectious disease into the kennel from outside; spreading infectious disease within the kennel; and taking infectious disease out of the kennel, into the community or to other kennels or stadia.

#### 3.8.5.1 Hand-Washing

Hand-washing facilities should be available at the kennels and staff should wash their hands using warm water and soap regularly to reduce the risk of transmitting infectious agents (see Appendix 4 for further information).

Staff should always wash hands:

- Before and after preparing feeds (if raw meat is handled, hands should be washed before handling other food or dogs).

- After cleaning teeth, grooming or massaging each dog. Dogs' mouths contain large numbers of bacteria so hands should always be washed after cleaning teeth. If possible, disposable gloves should be worn for teeth cleaning to provide extra protection.
- After cleaning out kennels.
- Before leaving the kennels.
- Before any human food is handled or consumed.
- Before entering, and after leaving, the isolation area of the kennels (this is in addition to other hygiene measures).

Regular hand-washing throughout the day will reduce the build-up of pathogens on hands and reduce the risk of transmitting infectious agents between dogs or to humans.

#### *3.8.5.2 Protective Clothing*

Some form of protective clothing should be used in the kennels. As a minimum, kennel staff should have dedicated outer clothing and footwear which is only used at the kennels. The clothing (i.e., overalls) should be cleaned regularly (at a minimum of once weekly or whenever dirty). The clothing should have any obvious soiling removed and then machine washed at minimum of 60°C.

Footwear used at the kennels should be used only for the kennel area and should not be used for general use outside of the kennels, unless of a type that can be thoroughly cleaned and disinfected (i.e. rubber boots).

Separate protective clothing should be provided for use in isolation facilities. Dogs being held in isolation/quarantine should always be handled last to reduce the risk of transmitting disease from the isolated dogs to other dogs. Where sufficient staff exist, a dedicated staff member may be allocated to look after dogs in isolation.

#### **Summary of Staff Hygiene and Protective Clothing**

- Hand washing is an important procedure for reducing the risk of disease transmission between dogs or from dogs to humans.
- A number of parasites and pathogens which affect dogs can also have human health impacts so good hygiene is essential.
- Hand washing with plain soaps or detergents suspends microorganisms and allows them to be rinsed off; hand washing with antimicrobial-containing products kills or inhibits the growth of bacteria.
- Overalls or dedicated work clothes should be used to minimise transfer of pathogens between the community or animals outside the kennel and the greyhounds within the kennels. Boots and overalls can also be cleaned/changed when moving between different areas of the kennel.
- Protective clothing and footwear should be provided specifically for use in the isolation area.

### **3.8.6 General Greyhound Healthcare**

This section includes information on dental care, grooming and injury/health monitoring.

#### *3.8.6.1 Dental Care*

It is important for all trainers to take good care of their greyhounds' teeth. Poor dental health can cause pain, tooth loss and loss of bone around the teeth<sup>[22][23]</sup> and can affect other organs including the heart and kidneys<sup>[23]</sup>, due to the high number of bacteria associated with dental plaque.

Poor dental health is a significant problem in greyhounds when inadequate dental hygiene is maintained. Poor dental health could also impact on racing performance where chronic pain, bacterial infections, etc. may impact on the health of greyhounds. Greyhounds with dental disease may be deemed unfit to take part in trial and race events where track veterinarians consider the condition serious enough to impact on the health of the greyhound.

Regular dental care in the form of teeth brushing, used in combination with other methods of dental hygiene, can help to maintain good dental health, good welfare and avoid costly veterinary treatments when dental disease is allowed to progress. Providing safe and suitable bones to chew can be a useful part of dental care.

The GBGB Guide to Greyhound Dental Score (Appendix 6, Figure 6.1) is a simple way to check and score greyhounds' dental health. Any greyhounds at Grade 2, 3 or 4 require veterinary attention. Delaying veterinary attention will prolong discomfort, allow the dental disease to progress and can lead to serious complications. Grades 0 and 1 may be maintained, or improved, through regular dental care provided at the kennels.

Further information on teeth brushing and dental care is provided in Appendix 6.

#### *3.8.6.2 Grooming*

All greyhounds should be groomed as part of their daily routine. Grooming provides valuable time for greyhounds to interact with humans, time outside of their kennel and also allows thorough inspection and care of the skin and coat.



*Figure 30: A greyhound being groomed.*

A variety of grooming tools and products suitable for use on short-haired dogs should be available for use at the kennel. As well as maintaining a healthy coat, grooming is also a good time to closely examine the skin and coat of dogs for any defects or disease. Observation for parasites (particularly fleas and ticks) should also be conducted at this time.

Grooming can also be combined with examination of ears, eyes, feet, etc. Early detection of issues in these areas can lead to more successful treatment of some conditions as well as reducing discomfort or wider health problems. Appendix 7 provides further details on some common conditions of the skin, eyes, ears and feet affecting greyhounds which may be found during routine grooming.

Nails should be trimmed as required. Advice on nail clipping and suitable lengths of nails should be sought from track veterinarians or from experienced handlers.

### 3.8.6.3 Basic Injury Checks

Trainers and kennelhands should ensure that each greyhound is checked thoroughly and regularly for injury. Some injuries may be apparent immediately after exercise but others can show subtle signs and may not become apparent until hours to days later. Therefore, it is important that dogs are regularly and thoroughly examined for injuries and appropriate action taken. Further advice from veterinary surgeons should be sought as needed.



Figure 31: Basic injury checks should be carried out regularly, and particularly following exercise, to assess for injuries which may not be immediately apparent and to reduce the risk of missing injuries.

Where serious injury occurs, veterinary advice must be sought immediately so that greyhounds can receive proper treatment and pain relief.

#### Basic Injury Checks

In summary, basic injury checks should include, as a minimum:

- Flexing/extending joints (avoiding excessive pressure).
- Walking and trotting (only where this is not going to cause discomfort)
- Examine for bruising and/or swelling.
- Examine for cuts
- Examine feet for sand-burn, spike wounds, web irritation and/or split webs

Further information on injury detection and common injury sites is provided in Appendix 8.

Special attention should be paid to examining greyhounds in the days following a race or trial, where injuries may have occurred but were not immediately obvious. Detecting these injuries will help to ensure the dog receives appropriate rest and/or treatment for any injuries sustained. Failure to detect such injuries before the next race or trial may result in the dog exercising and exacerbating the original injury.

Trainers and kennelhands should monitor and follow up on any changes in performance (speed, action, racing line, etc.) or behaviour of greyhounds. These signs may be the first symptoms of an illness or injury.

New trainers or kennelhands should not feel embarrassed about seeking the advice of more experienced trainers or track veterinarians, regarding basic injury diagnosis.

Basic first-aid supplies, including bandages, primary wound dressings and other suitable materials should be available at the kennels in case they are required. Trainers and kennelhands should consult their vet on suitable materials to stock for first-aid purposes. Veterinary advice must be obtained when a dog is injured. If immediate first aid is required, this should be conducted under the guidance of a veterinary surgeon by a competent person at the kennel, prior to transporting the dog to the veterinary surgery.

The GBGB recommends that professional veterinary opinion is sought when an injury is suspected or detected or there is a noticeable change in performance, or in the way in which a greyhound races, for example changes in race time or changes in preferred racing line.

#### 3.8.6.4 Annual Veterinary Clinical Examination

As part of greyhound preventative healthcare, an annual clinical examination must be performed by a veterinary surgeon on all greyhounds kept in the kennels. This should be a full clinical examination and include physical contact with each greyhound and assessment of the main body systems. Any abnormalities detected should be investigated by the veterinary surgeon, documented, and a treatment plan agreed. A record of annual clinical inspections should be available for inspection. The examination may be conducted at the same time as the annual vaccination is given.

### 3.8.7 Care of the Greyhound in Extreme Weather Conditions

#### **Documentation:**

Kennels should have a policy in place for dealing with extremes of temperature and weather conditions. Evidence that this is being implemented should be available when required. Templates for extremes of temperature and weather policies are provided by GBGB.

Greyhounds are highly susceptible to extremes of temperature due to their low body fat and high muscle mass. Greyhound kennels should ideally be maintained between 15 and 25°C<sup>[2]</sup>, but should not fall outside the range 10-26°C<sup>[2][24]</sup>. If greyhounds are persistently exposed to temperatures above or below this range, it can cause stress, increased energy requirements and poor welfare.

Allowing greyhounds to be exposed to extreme heat can result in heat stress, which can be fatal if not treated. Kennels should have a policy in place for dealing with extremes of weather which will outline the measures taken to reduce the impact of extreme weather conditions on greyhounds.

Further information on caring for greyhounds in extremes of weather and thermoregulation in the greyhound is provided in Appendix 3.

### 3.8.8 Medication

#### 3.8.8.1 General Medication Control and Permitted Substances

The Veterinary Medicinal Products Directive 2001/82/EC sets out the controls on the manufacture, authorisation, marketing, distribution and post-authorisation surveillance of veterinary medicines applicable in all European Member States. The Veterinary medicines Directorate (VMD) are responsible for enforcing this directive in the UK.

Medications are frequently used in the treatment of greyhounds for illness or injury. It is important that medications are used and stored correctly and that delivery is carefully monitored to ensure that medication is only given to the dog(s) for which it is intended.

All medicines used for greyhounds must:

- Have a current marketing authorisation for sale in the UK

- Be within its expiry date
- Stored and used as per the manufacturers/veterinary instructions
- only be used for the greyhound to which they have been prescribed.

The GBGB 'Rules of Racing' do not specifically prohibit the use of particular substances, however, they do stipulate that: "A Greyhound when taking part in a race or trial must, at that time, be free of any substance that could affect its performance or well-being, the origin of which could not be traced to normal and ordinary feeding"<sup>[25]</sup>.

If a greyhound requires medical treatment for injury or illness, this should not be withheld in order for the dog to continue to take part in races or trials. The welfare of the greyhound should be paramount and racing/trialling should cease while treatment is given and only resume when the dog is in suitable health and fitness and all medication is fully cleared from the dog's system.

Some Veterinary Medicines can be administered to greyhounds and do not require withdrawal from racing. GBGB's 'Rules of Racing'<sup>[25]</sup> permits the use of:

- Medicinal products which have been authorised by the Veterinary Medicines Directorate for the suppression of a bitch's season, prescribed for racing greyhound bitches only by a Veterinary Surgeon.
- Medicinal products which have been authorised by the Veterinary Medicines Directorate as anti-parasitic drugs (for internal/external) parasites or as vaccines, licensed for use in canines.
- Substances included in the GBGB published list of permitted treatments.

It can take a variable period of time for medications to be fully cleared from a dogs' system and this will determine the period of time between stopping a particular medication and when a greyhound can return to race and trial events. It is solely the responsibility of the trainer to ensure that greyhounds are free from medication (apart from those included in the GBGB rules of racing as permitted substances<sup>[25]</sup>) when taking part in a trial or race.

#### **Meloxicam: Guidance for Greyhound Trainers**

Meloxicam is a non-steroidal anti-inflammatory drug which is used for the treatment of inflammation and pain in both acute and chronic musculoskeletal disorders in dogs and other species. A recent study demonstrated that meloxicam may persist in the greyhound for up to 25 days following a single dose<sup>[26]</sup>. Residues of meloxicam may also be found in category 2 meat. Therefore, GBGB issued the following warning to trainers:

- Meloxicam should not be used as an anti-inflammatory within 30 days of a race or trial
- Category 2 meat shall not be fed to racing greyhounds within 14 days of a race or trial
- Trainers are advised to seek veterinary advice regarding alternative anti-inflammatory medication.
- Suitable alternatives include Carprofen and Cox-2 inhibitors such as Firocoxib.
- These are Prescription Only Medicines (POM) and must be supplied by a veterinary surgeon

For further information see: <https://www.gbgb.org.uk/meloxicam-medical-alert-for-trainers-831/>

Trainers should be aware that it is an offence:

- To be in possession of a veterinary medicine not lawfully supplied in the UK (including, where appropriate, lawfully prescribed).
- To administer a veterinary medicine unless it has a marketing authorisation valid in the UK and has been prescribed for the individual dog.
- To import a veterinary medicine into the UK, even if authorised for use in the UK (except for AVM-GSL medicines).
- To supply a veterinary medicine to another person, other than as legally required.

### *3.8.8.2 Purchasing Medication From On-line Retailers*

On-line retailers are being increasingly used for the supply of veterinary medicines, with or without the need for a veterinary prescription (depending on the type of medication being purchased). The VMD Accredited Internet Retailer Scheme helps on-line buyers of veterinary medicines by ensuring that:

- The retailer has voluntarily applied for, and has been granted accreditation.
- Confirming that the VMD has inspected the website and found that it complies with the Accreditation Scheme's requirements and the Veterinary Medicines Regulations.

By doing so, this scheme:

- Reduces the risk of you buying illegal or unauthorised veterinary medicines.
- Reduces the risk of you buying inappropriate or ineffective veterinary medicines.

For the accredited internet retailers list and other information on the Veterinary Medicines Directorate refer to the VMD website at:  
<https://www.gov.uk/government/organisations/veterinary-medicines-directorate>

### *3.8.8.3 Storage and Disposal of Medication*

Medications must be kept in a secure storage area, inaccessible to greyhounds, children or any unauthorized personnel and be protected from light and extremes of temperature in accordance with the manufacturers' instructions (Figure 32). Care must be taken to ensure that all medications are within their expiry date. Any expired medication should be disposed of appropriately.



*Figure 32: An example of a suitable medicine cabinet.*

All medications have a date for expiry of the unopened product but some also include instructions on how long the product may be used for, once opened. This is particularly relevant for ear or eye drops and injectables where a single bottle may be used for multiple doses. The manufacturer's instructions on use and disposal should be followed at all times.

Medication should only be given to the individual dog (and for the purpose) for which it was prescribed by the veterinary surgeon.

All veterinary medicines should be disposed of correctly. Seek advice from your veterinary surgeon on disposal of medication.

### 3.8.8.4 Medication Management

A system should be in place to ensure that greyhounds receive the correct medication, at the right dose and time, and that medication is not given to the wrong greyhound. Details of all medications should be entered in the treatment book (see section 8) but a visual chart in the kennels may also be useful.

This might include use of a whiteboard near the medical cupboard for recording information such as: greyhound name, name and dosage of medication and when it should be given. Using tick-boxes to show that the treatment has been given is also useful to ensure dosages are not missed and to prevent giving additional doses (Figure 33).

Having specific staff members responsible for giving medication can also help to ensure these are delivered correctly.

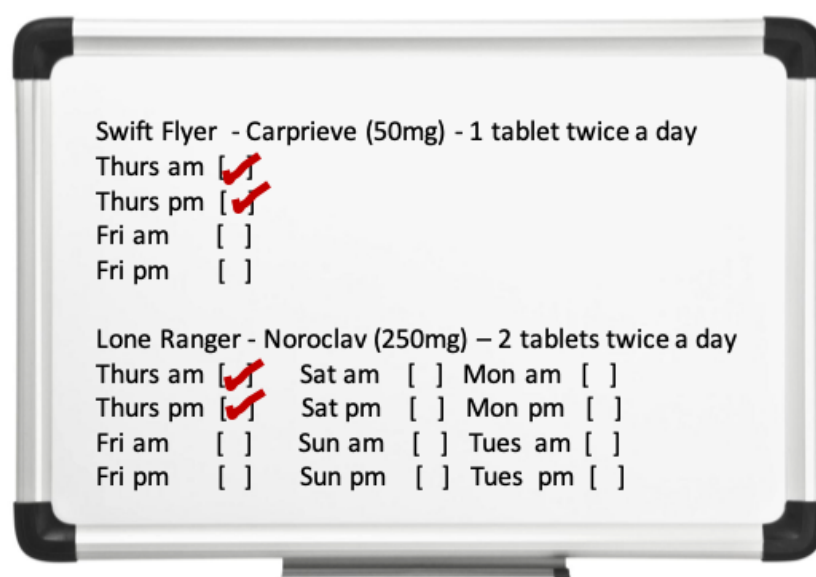


Figure 33: An example of a medication chart

### Protecting Antibiotics

- Antibiotic resistance is a serious and emerging problem
- Antibiotics should only be used when absolutely necessary (as advised by a veterinary surgeon)
- Always complete the course of antibiotics provided by the veterinary surgeon
- Only use antibiotics for the dog and for the reason for which they were prescribed

## 3.9 Infectious Disease

### Documentation:

An Infectious Disease Plan should be developed and documented for each kennel. This includes response to an infectious disease, including responsibilities for different staff members, use of isolation facilities and emergency cleaning and disinfection routines. Templates for infectious disease plans are provided by GBGB.

This section includes information on common infectious diseases affecting greyhounds in kennels and also provides guidance on responding to an infectious disease. Section 3.8.1 outlines biosecurity measures used to reduce the risk of infectious diseases occurring in kennels, whereas this section is concerned with what should be done once an infectious disease is suspected in a kennel.

No dog with a suspected infectious disease, or showing any sign of illness, should be taken to a race track or schooling track. Immediate veterinary advice should be sought.

A number of infectious diseases may be seen in greyhound kennels. The ones more commonly seen, include: kennel cough, kennel sickness (various causes of vomiting and diarrhoea), and acute canine haemorrhagic pneumonia. Other infectious diseases which can cause serious illness but are less commonly seen in greyhound kennels, include canine parvovirus, canine distemper and leptospirosis. The more commonly encountered diseases are outlined below but trainers and kennelhands should also note that sometimes new or unusual diseases may occur and continued vigilance and monitoring the health of greyhounds will help to identify these early and therefore control them more rapidly.

Any unknown illness or disease should be treated as infectious until it is proven to be otherwise and appropriate action taken. If you have any concerns about a possible infectious disease, you should contact your own veterinary surgeon and the GBGB for advice.

### 3.9.1 Common Infectious Diseases in Greyhound Kennels

This section outlines some of the most common infectious diseases seen in greyhound kennels.

#### 3.9.1.1 Kennel Cough

Kennel cough, or canine infectious respiratory disease, is a complex condition which can involve various pathogens, often in combination, and can cause a multitude of clinical signs ranging from mild to severe respiratory disease. Vaccination against some components of kennel cough are available but may not completely prevent the disease due to the large number of agents involved.

Kennel cough is highly infectious and spreads when a non-infected dog contacts the respiratory secretions from an infected dog. Isolation therefore plays a key role in limiting the spread of this disease.

Kennel cough vaccination can be useful when kennel cough occurs in a kennel as it provides rapid protection<sup>[2]</sup>. While it may not offer complete protection, it can reduce the clinical severity of disease and can reduce further shedding of infectious agents from infected dogs.

Uncomplicated kennel cough affecting the upper airways (affected dogs are usually bright and alert but have a hacking-type cough, often worse with exercise or excitement) will not generally require antibiotics but should be rested and monitored carefully. Veterinary advice should be sought to help rule out other conditions which may cause similar symptoms. If a dog is lethargic, has a reduced appetite, laboured or rapid breathing, an increased temperature, OR nasal discharge, veterinary advice must be sought immediately.

Be aware that some parasite infestations, such as lungworm, may also show similar signs to kennel cough and should be investigated.

A greyhound which is coughing should not be raced. A dog which has had kennel cough should not be raced until at least 3 weeks after the coughing has ceased, and only on the advice of your veterinary surgeon. Exercise can cause pathogens from the upper airways to enter the lower airways and potentially cause more serious disease.

#### **3.9.1.2 Acute Canine Haemorrhagic Pneumonia:**

This condition is rapidly fatal in greyhounds. Illness often occurs within 2-3 days of racing, transportation or other event and manifests as lethargy, panting, high temperature and loss of appetite. Note that these dogs often DO NOT COUGH.

##### **Common Clinical Signs of Acute Canine Haemorrhagic Pneumonia**

- ✓ Very sudden onset (may appear as sudden death – i.e. found dead in the kennel)
- ✓ High temperature
- ✓ Cough often ABSENT
- ✓ Lethargic and depressed
- ✓ Shock (pale gums, weak pulse)
- ✓ Difficulty breathing and/or rapid breathing
- ✓ May see some bleeding from nose or mouth (but often absent)

Trainers and staff must be vigilant for greyhounds being off-colour or lethargic, especially if they have a raised temperature. These symptoms can be signs of serious lung disease which, if not treated immediately, are invariably fatal. If a dog receives the correct treatment, rapidly it may make a full recovery. A delay of even a few hours “to wait and see” will prove fatal for these dogs.

This condition is more commonly seen in greyhounds compared to the general pet dog population. Therefore, many vets may be unaware of the seriousness of this condition in the greyhound. Appendix 9 includes a medical alert sheet which can be printed in advance and kept at the kennels to be provided to your veterinary surgeon if this condition is suspected. This outlines common symptoms and emergency treatment information to try and ensure that greyhounds receive appropriate and rapid treatment once they arrive at the vets.

Because there may be a risk to other dogs, trainers should call the GBGB Helpline to inform them that acute canine haemorrhagic pneumonia is suspected in a greyhound, once they have sought emergency treatment from their own veterinary surgeon.

Any lethargic or ill greyhound with a temperature above 39.5°C / 103.1°F must receive emergency veterinary treatment without delay.

##### **24-hour GBGB Helpline: 0207 822 0913**

Please note that the above telephone number is an answering machine service. Messages will be relayed to a person appropriately qualified to answer regularly during GBGB office hours. For emergency advice please contact your local veterinary surgeon.

#### **3.9.1.3 Kennel Sickness**

Kennel sickness is a general term encompassing various causes of vomiting and/or diarrhoea in the kennel environment. Possible causes could range from food sources, bacterial infections, viral infections and parasites. Because a number of different pathogens can cause kennel sickness, the illness can vary in

severity. Mild kennel sickness may only last a short time and dogs may remain relatively bright, whereas some severe forms of kennel sickness, such as haemorrhagic gastroenteritis, can cause severe disease and dogs may die rapidly.

If a dog shows signs of vomiting and/or diarrhoea, is lethargic, loses weight, loses appetite or has a raised temperature, immediate veterinary attention should be sought. In the case of severe kennel sickness, there may be few warning signs of illness. If a dog collapses with diarrhoea, it can die rapidly (within hours). Therefore, immediate veterinary attention is needed. These dogs must not be taken to a race track for treatment by the track vet. If the condition is contagious, this may cause it to spread to multiple kennels.

Following recovery from kennel sickness, dogs must be fully recovered and well-hydrated before commencing any strenuous exercise and veterinary advice on commencing exercise should be sought. Note that dehydration and electrolyte imbalances resulting from kennel sickness could put dogs at risk of other causes of sudden death (such as acute cardiac failure or Intra-abdominal haemorrhage) if they are raced or trialled before they have fully recovered.

Some forms of kennel sickness can pass directly from dog to dog, while others may be contracted from eating contaminated food or coming into contact with faeces from infected dogs. Hygienic and correct preparation and storage of food is important in preventing food-borne disease in your kennels (see Appendix 2) as is good kennel hygiene and biosecurity (see Appendix 4).

### 3.9.2 Infectious Disease Management

This section outlines the response to a suspected, or confirmed, infectious disease outbreak in a greyhound kennel. Good biosecurity and monitoring of greyhound health will help to minimise the risk of infectious disease and ensure early detection of disease. Rapid and effective response to a disease outbreak will help to minimise the impact of the disease both on individual dogs and the kennel as a whole.

When a greyhound becomes ill, it may not be clear whether the cause of that illness is infectious or not. However, all illness should be treated as infectious until proven otherwise, to ensure that rapid and appropriate measures are put in place to limit any further spread of disease.

#### **The first response to any disease should be as follows:**

- Isolation – isolate dogs showing signs of disease and any dogs which have had direct contact with them (i.e. their kennel-mate).
- Seek veterinary advice (in the case of severe illness, take the dog immediately to the vet).
- Report to GBGB and Disease Surveillance and Monitoring Program. Advice on further actions will be provided.
- May need to tighten biosecurity.
- If a greyhound has died, triple bag the greyhound and follow advice from the GBGB.
- A cleaning and disinfection session will then be planned.

#### 3.9.2.1 Isolation

Greyhounds showing signs of disease should be isolated from healthy greyhounds immediately. Greyhounds which have had direct contact with the infected greyhound, such as the kennel mate, should also be isolated. Every kennel must have an isolation facility which is clean and ready for use at all times. The isolation facility must be compliant with GBGB kennel specifications and should provide a safe, comfortable and secure place for greyhounds to be isolated.

Every kennel must have an isolation facility which is clean, ready for use at all times and compliant with GBGB kennel specifications

The isolation facility should be designed such that isolated greyhounds do not share the same air space as other greyhounds and that there is physical separation. A separate paddock should also be available for the use of isolated greyhounds.

The length of isolation will depend upon the disease. Veterinary advice should be sought regarding when to release dogs from isolation following recovery from an infectious disease.

No greyhound showing signs of disease, or which have had recent direct contact with such a dog, should be taken to a race track or schooling track. Running a greyhound which is suffering from ill-health could significantly worsen its condition and also spread the disease to other dogs at the stadia.

#### *3.9.2.2 Seek Veterinary Advice and Contact GBGB and Disease Surveillance and Monitoring Program*

Veterinary advice must be sought immediately if a disease is suspected. Some infectious diseases require immediate veterinary attention.

The GBGB and Disease Surveillance and Monitoring Program should be contacted to report a suspected infectious disease and advice will be provided on further action needed.

GBGB Disease Surveillance and Monitoring Program  
0207 822 0929

#### *3.9.2.3 Heightened Biosecurity During an Infectious Disease Outbreak*

Routine biosecurity measures should take place at all times, as part of the day to day running of a kennel (see section 3.8.1). However, when an infectious disease occurs in a kennel, it will be necessary to tighten biosecurity in order to minimise spread of the infectious disease within the kennel, and to prevent spreading the disease to dogs (or humans) outside of the kennels.

Depending on the infectious disease suspected, and the specific circumstances of the outbreak, the GBGB will provide advice on additional biosecurity measures or any restrictions on attending race events. However, it is important that a plan is in place for biosecurity measures during an infectious disease so that staff are prepared and that necessary equipment, materials, etc. are available when needed.

Heightened biosecurity measures might include:

- Strict use of protective clothing, with different outer clothing being used in different kennel blocks.
- The use of shoe covers or changes of footwear when entering different kennel blocks.
- Different staff allocated different kennel blocks to minimise cross contamination between different areas of the kennel (the feasibility of this will depend upon availability of staff).
- Hand-washing between handling of all dogs.
- Specific measures such as kennel cough vaccination, etc.
- Allocate a staff member to the isolation facility or, where this is not feasible, ensure that isolated dogs are always managed after healthy dogs and that cleaning equipment, disinfectant, protective clothing (including dedicated footwear) and hand-washing/cleaning equipment is available in the isolation area. All equipment in the isolation area should be colour-coded so that it is clear that it belongs in this area and is not used elsewhere.
- Minimise movement of people in and out of the kennels (i.e. limit owner visits during infectious disease outbreaks).

These are examples of how biosecurity might be heightened in the presence of an infectious disease, but these will depend upon the availability of staff and the disease involved. Advice should be sought from a veterinary surgeon or from the GBGB on specific measures which might be applied at your kennels.

#### *3.9.2.4 Cleaning and Disinfection Following Infectious Disease*

This involves a thorough decontamination of the whole kennel in response to an infectious disease. The GBGB will inform you of when this is necessary and help you to plan this activity. The process of cleaning

and disinfection is the same as that described for periodic deep cleaning and disinfection in section 3.8 but will involve cleaning and disinfection of the whole kennel and all equipment at the same time, with the purpose of killing all infectious agents in the kennel environment.

All routine kennel activities will stop at this time and all dogs must be removed from kennels while cleaning and disinfection take place. They may not be returned until the kennels are dry and all strong fumes have cleared. For further information on cleaning and disinfection in response to an infectious disease refer to Appendix 4.

## 4 Emergency Procedures

### Documentation:

An emergency plan should be developed to include: evacuation plans, telephone numbers of the emergency services, local police station, vets (24-hour emergency vet AND regular vet if these are different), the trainer's telephone number and locations of fire exits and fire extinguishers. This Emergency Plan must be clearly displayed at the kennel. Templates are available from the GBGB

### 4.1 Emergency Plans and Equipment

An emergency evacuation plan and fire warning procedure should be made available to all personnel working at the kennels. There must be a working telephone on the premises. An emergency plan clearly displaying the telephone number of the fire department, police and vets must always be on display and all staff should be made aware of the plan.

If a kennel is likely to be empty (without staff) for periods of the day or night or where only one person (i.e., a trainer without staff) is responsible for the greyhounds, measures should be in place to ensure that greyhounds are adequately cared for should an emergency occur when the trainer is absent or should the trainer be unexpectedly detained away from the kennel.

#### 4.1.1 Fire Safety

Adequate firefighting equipment shall always be accessible to staff, regularly inspected and be maintained in good working order. Such equipment must be positioned in a suitable location for quick deployment (and the locations of these included in emergency plans). All staff should be adequately trained to use the available firefighting equipment and be aware of the fire exit locations. A fire safety visit from the fire brigade should be arranged for advice on fire safety equipment and safety advice.

Smoke alarms and carbon monoxide alarms should be installed as needed and in accordance with the manufacturer's recommendations. Regular maintenance of smoke and carbon monoxide alarms is essential for their effectiveness. Alarms must be able to be heard at all times by a competent person. All kennels should have clearly marked fire exits. These must be unobstructed and easily accessible at all times.

Appropriate steps must be taken for the protection of the greyhounds in case of fire or other emergencies. An emergency risk assessment shall be conducted for the kennels. This assessment should cover fire, flooding and any other applicable emergencies.

## 5 Kennel Security

The kennels should be secure within an enclosed area (i.e. within a perimeter fence). This is to ensure that if a greyhound does manage to slip the lead or escape from its kennel, it would be prevented from escaping from the site. As well as preventing escape of greyhounds, secure perimeter fencing would also prevent members of the public entering the kennels freely. This is important both for general security and biosecurity of the kennel establishment.

Kennel premises should be locked securely to prevent any unauthorised entry.

Kennel property keys, including for gates and doors, should be safely stored and clearly marked. All staff should have easy access to such storage in case of an emergency.

Kennel premises should have a clearly visible sign including an emergency contact number at the external entrance of the kennels.

The time that kennels are unattended by staff should be kept to a minimum. Additional staff should be used if racing, or other commitments, mean that all regular staff are away from the kennels for extended periods.

Closed Circuit Television (CCTV) and/or alarm system should be used as part of the kennel security arrangements

All premises shall be provided with over-night supervision to the satisfaction of the Area Stipendiary Steward.

## 6 Kennel Construction



Figure 34: Two greyhounds housed inside a double kennel unit.

### 6.1 General Construction

#### Financial Assistance

Financial assistance for welfare related or capital improvement projects may be available through the Trainer's Assistance Fund. See Appendix 10 for information, application guidance and conditions of grants

The kennel environment is of vital importance to the welfare of greyhounds so it is important that kennels are constructed to provide comfortable and hygienic living conditions and that special attention is paid to ensuring that greyhounds are protected, as far as possible, from any negative impacts of kennelling. The layout and construction of kennels, and the surrounding area, should promote greyhounds' choice and control over how they interact and have visual access with the daily workings of the kennel.

Often greyhounds will have visual contact with dogs in other kennels but ideally, a greyhound should be able to choose an area within the kennel where it does not have visual contact with dogs in other units. If a particular greyhound is not settled in a specific unit, consider what changes could be made to the kennel environment, including moving the greyhound to a different kennel or block, which might suit them better.

Consideration must also be given to reducing noise levels through kennel construction and design. Further information on noise reduction is provided in table 1.

This section outlines some minimum standards relating to kennel construction. However, efforts should be made to provide optimum living conditions for greyhounds, with consideration of enriching the kennel environment where possible (see section 3.5 for more information on environmental enrichment).

The design, size and materials used in the construction of kennels should be suitable to provide a clean, safe, draught-free and comfortable kennel environment for all greyhounds. Buildings must be constructed of a suitable material, such as: brick, concrete or thermal block. A mixture of materials may be used in the construction of a building to provide a structure which is a secure, robust and durable and provides protection against extremes of weather. When building new kennels, they should be constructed on a concrete base with a damp-proof membrane. Cavity walls should be insulated.

#### 6.1.1 Roof

There must be a secure and waterproof roof covering all kennel buildings.

#### 6.1.2 Unit sizes

As a minimum, each kennel unit should be sufficiently large to allow each greyhound kept in the unit to be able to walk, turn around and wag its tail without touching the sides of the unit. In addition, a greyhound should be able to stand on its hind limbs, and to stretch and lie flat without touching another greyhound or the sides of the kennel. The unit should also be large enough to allow each greyhound to interact, defecate, and have access to its own feeding and water bowls. While the dimensions provided here are minimum kennel sizes, larger kennels should be used where possible.

##### Kennel Unit Minimum Size

- **Height:** 2m (6 feet 6 inches)
- **Double unit:** 2.3m depth, 1.5m width
- **Single unit:** 2.3m depth, 1.0m width

Each double and single unit must be provided with a removable bench. The bench shall be raised from the floor and the bedding area shall allow each greyhound kept in the unit to lie flat on its side without touching any other greyhound housed within that unit. The removable bench is raised to avoid drafts and ensure that the bed is kept away from any soiling of the unit floor. Consideration should be given to providing additional bedding areas within a kennel to provide greater choice for greyhounds to select preferred sleeping areas and to reduce competition for beds. While the minimum stated bedding size is 1 metre square<sup>[9]</sup>, larger bedding areas should be used where possible to allow greater choice and comfort for the dogs during rest.

##### Minimum Single Size Bedding

1 metre square

No more than two greyhounds may be housed together in a kennel unit.



*Figure 35: While some greyhounds may choose to sleep off the bed, providing a choice of beds in the kennel unit, particularly in double units, will offer alternatives. If a dog chooses not to sleep on a high bed, particularly when this represents a change in behaviour, possible reasons should be investigated as it may be due to, amongst other things, discomfort getting into the bed or conflict with a kennel-mate.*

### 6.1.3 Unit Doors

Unit doors shall be securable, cleanable, rigid and strong enough to resist impact and scratching from greyhounds. They must also be free from projections and rough edges which may cause injury. A suitable locking device must be fitted to prevent a greyhound from escaping through a closed unit door.

Unit doors shall be of a construction that allows both natural and artificial light to enter the unit. Unit doors shall not provide a hazard to the greyhounds. There should be no apertures or gaps that can trap body parts. This is particularly important around door handles and locks. Any aperture greater than 50 mm should be protected from the interior of the kennel by metal plates or wire mesh. Unit doors shall be raised above the ground sufficiently to allow the passage of fluids out of the kennel, but low enough to prevent greyhounds from escaping or becoming injured.

Galvanised weld mesh doors (minimum 2 mm and British standard 14 gauge thickness) or metal bar type constructions are recommended, due to benefits of longevity, hygiene, interaction and improved light and ventilation.

### 6.1.4 Windows

Window frames shall be fixed in place with transparent in-fills. They should be constructed of a suitable material to prevent breakage and at least one in three windows shall be of such construction that they can be opened to provide sufficient or additional ventilation.

Windows shall not provide a hazard to the greyhounds and it shall not be possible for a greyhound to escape through, or become trapped by, a window at any time. Any broken windows should be repaired or replaced immediately to prevent any injuries. In the event of a breakage, greyhounds must be removed from damaged kennels until all repair work has been completed.

Skylights may be used in place of windows when the design of the kennels limits the number of windows that can be used. Units should be protected from extremes of sunlight and temperature, for example through the use of blinds on windows.

Suitable window frame materials include aluminium, PVC or uPVC.

### 6.1.5 Lighting

Each building and unit must be provided with adequate lighting. It is preferable that natural light is sufficient during daylight hours and is only supplemented with artificial light when required. In kennels where natural light is limited due to the number of windows that could be fixed, skylights can be introduced to increase this. Light fittings used should not pose any risks to the greyhounds. They should be located in a suitable area such that they are out of reach of the greyhounds while ensuring that each kennel is provided with adequate lighting.

Kennel lighting should be sufficient to enable inspection of each greyhound and the entire kennel effectively at any time. Lights should be turned off to provide a period of darkness overnight in order to allow greyhounds time for good quality sleep and maintenance of a normal circadian rhythm. When using movement sensor security lights around the kennels, care should be taken to direct them away from kennel windows and from areas where they may be triggered by movement of branches, etc.

All lighting in the kennel must be in good condition and well maintained. Broken light bulbs should be replaced immediately to prevent any injuries. Greyhounds must never have access to electrical wiring.

LED lights are recommended as they are highly resistant to water, are cost-effective and energy efficient.

### 6.1.6 Interior Unit and Kennel Surfaces

All interior unit and kennel surfaces used in the construction of the walls, floors, partitions, doors and door frames shall be fixed in place and be non-permeable to liquids. Interior unit surfaces shall be free from hazards. There must be no projections, rough or sharp edges liable to cause injury and the interior of the kennels must be kept in good order and repair. Materials used in the construction of partition walls must ensure the safety of greyhounds and prevent injury. For example, wire mesh should be of a diameter that prevents access to neighbouring dogs and protects noses, paws and claws from becoming trapped or injured.

All paints and materials used on the unit and kennel interior should be non-toxic. The internal concrete or block work should be primed before painting. Expansion gaps should be filled with a foam backer or equivalent and caulked. Internal walls that form part of the kennel area which greyhounds might come into contact with should be sealed and water proofed against damp. Rendered walls should be sealed before painting, or painted with a solvent-based, or equivalent, masonry paint.

To prevent the spread of diseases and odours, all surfaces must be properly maintained and easily cleanable. The interior of all kennels should be easy to maintain and allow good biosecurity.

### 6.1.7 Use of Wood

Wood is difficult to clean and maintain and therefore should be avoided in kennels where possible. Moreover, chewed or splintered wood could present a hazard to a greyhound, as well as harbouring pathogens. Any wood used on the kennel exterior shall be treated with a preservative. If wood is used internally it shall be non-permeable to liquid. Internal wooden surfaces shall be covered with a washable hard-wearing material, such as PVC or uPVC, to avoid splintering and aid cleaning.

### 6.1.8 Flooring

PVC or uPVC type products are examples of washable and hard-wearing materials.

The use of wooden sheds for kennels, in any shape or purpose, is prohibited on GBGB licensed premises.

Kennel floors and passageways must be made of a material that is non-permeable to liquids such as ceramic tiles, heavy duty acrylic resin, sealed/painted concrete or a suitable screed. The floor should be finished to produce a smooth, non-slip, surface which is easy to clean and disinfect while offering sufficient grip for the greyhound to walk without slipping or causing injury. Broken or chipped tiles or exposed holes can cause injury and should be fixed immediately.

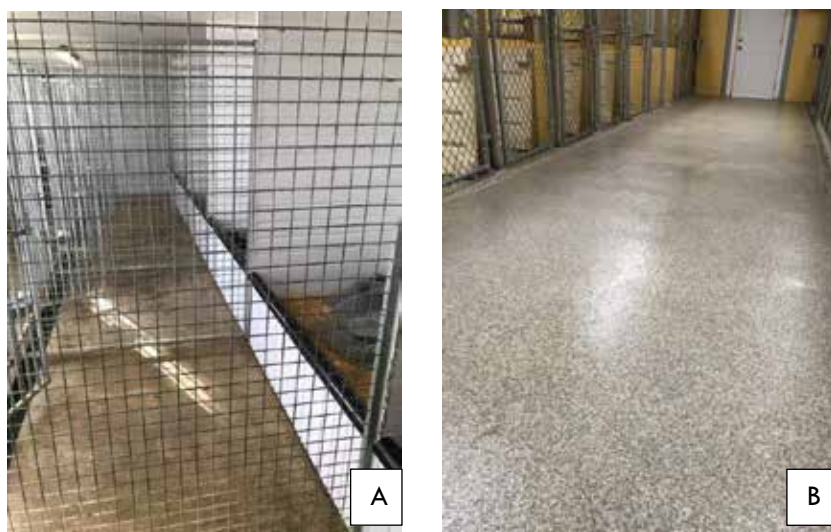


Figure 36: Examples of kennel floor covering (A) concrete (B) Resin floor. (Image source: Floremac.co.uk)

#### 6.1.9 Drainage

Appropriate drainage in kennels is of paramount importance to ensure that there is no passage of liquids between units or pooling of liquids either within units or within kennel buildings which could: harbour or spread pathogens; contribute to poor air quality; and cause foot and skin conditions due to wetting or urine scald. Pooling of water within kennels will also increase humidity in the kennel block which can lead to greater survival of pathogens and may increase the risk of respiratory disease.

Kennel floors should ideally be sloped towards draining channels that flow into a waste management system outside the kennels. This will prevent waste water passing between adjacent kennels. Drainage channels should flow into a main drain or suitably constructed cesspit away from the kennels. Drains must be checked regularly and cleared as necessary. It is advisable to cover all drains, with suitable covers, to prevent injury.

It is recommended that a gradient of 1/80 should be used to avoid standing water.



Figure 37: An example of a good drainage system within a kennel block.

#### 6.1.10 Temperature

The temperature in residential kennels should ideally be maintained between 15°C and 25°C<sup>[2]</sup>, with an absolute minimum of 10°C and maximum of 26°C<sup>[2][24]</sup>. If temperatures fall below the ideal range, sufficient coats should be provided to maintain comfort. If temperatures fall persistently above or below the ideal range, other changes such as improved insulation, additional heating, air-management/air-conditioning etc. should be used.

There shall be a means of measuring, monitoring and recording temperature (minimum and maximum) and relative humidity in the bedding area of each unit.

Consideration should be given to maintaining humidity within an acceptable range. Consideration should also be given to how the design and build of kennels helps to maintain temperatures within an acceptable range. The use of insulation between walls and roofing areas will assist in retaining heat during cold weather and protecting from over-heating during hot weather. Insulation will also help to reduce transmission of noise between kennels.

Temperature control units should be out of the reach of greyhounds. Control units should not directly force concentrated cold or heat to a greyhound in a way that becomes uncomfortable and greyhounds should be protected from direct draughts.

### 6.1.11 Ventilation

The design of the kennel unit should ensure there is adequate ventilation to prevent excessive humidity and manage smells, and also to help control the spread of airborne disease. Minimising moisture in kennels, removal of soiled or wet bedding and good cleaning (and dust removal) will all help to improve air quality in kennels but good ventilation is also needed. GBGB recommends ventilation allowing for 16 air changes per hour in the summer and 4 air changes per hour in the winter.

Windows provide the best source of natural light and, when positioned correctly, can provide an excellent source of ventilation. Windows are useful as they can be adjusted to provide more or less ventilation as required. Where kennels are newly built, orientation in relation to prevailing winds should be considered in order to provide adequate ventilation but without excessive draughts which can make it difficult to provide enough warmth during the winter. If sufficient ventilation can't be achieved through the use of windows and doors, then forced ventilation systems should be considered.

## 6.2 Maintenance

### **Documentation:**

All kennels should have a documented maintenance procedure in order to keep facilities and equipment in good working order and to provide a clean and safe environment for greyhounds and staff. Templates for maintenance procedures are provided by GBGB.

Maintenance and repairs to the whole kennel establishment must be carried out regularly and to the satisfaction of your area stipendiary steward. Failure to maintain a kennel correctly is a breach of the GBGB Rules of Racing and may result in the suspension or withdrawal of a trainer's licence.

Financial assistance for welfare related or capital improvement projects may be available through the Trainer's Assistance Fund. For further advice, trainers should contact their local Stipendiary Steward prior to the completion of the application (see Appendix 10 for details of the fund and application process).

For applications contact the Trainers Assistance Fund:  
Tel: 0207 822 0900 (Option 5)  
Email: [grants@gbgb.org.uk](mailto:grants@gbgb.org.uk)

## 7 Provision of Facilities

### 7.1 Beds and Bedding Material

Clean and dry beds and bedding material shall be provided for each unit. The comfort of the greyhound should be considered when selecting bedding material. Bedding material in use should be clean, dust-free, non-irritant, non-toxic, dry and used to a sufficient depth to provide the necessary comfort and warmth required. Chewing or destruction of bedding should not result in permanent use of muzzles or restricted access to suitable bedding materials, rather alternative bedding types should be trialled and underlying reasons for chewing investigated.

Any exposed wood at the front or sides of the bed that are accessible to greyhounds shall be covered with a hard-wearing material to avoid splintering caused by chewing. This can be covered with modified plastic piping or other suitable material, such as metal, to avoid splintering.

Traditional bedding such as shredded paper is acceptable, provided it is changed regularly, as are modern fabric quilted bedding, for instance, which are dust free and low maintenance.

Simple design changes to the bedding area can also provide useful opportunities for enrichment. Some dogs may be stressed or timid in the kennel environment. Such dogs may benefit from a bed designed to provide a hiding place (such as a solid roof and enclosed sides) or additional bedding material that the greyhound may be able to get under if preferred.

Further details on environmental enrichment are provided in section 3.5.



*Figure 38: If paper bedding (sometimes waxed) is used, it should be provided at sufficient depth to ensure comfort for greyhounds.*



*Figure 39: Re-usable bedding such as duvets, etc. can be used provided they offer adequate comfort for greyhounds and are kept clean and dry.*

## 7.2 Electrical Appliances

Heating appliances must not be sited in a location or manner where they may present a risk of fire, or risk to the greyhounds. Electrical appliances must be maintained in a safe condition and connected to a residual circuit breaker located in each block of kennels. Greyhounds must not be subjected to excessive direct heat and should always have adequate space to be able to move away from the heat source.

No electrical wire/flex must be within reach of greyhounds at any time due to risk of injury or electrocution. All electrical appliances should be used in accordance with manufacturer's instructions.

Open flame heating appliances should never be used in kennels or kennel blocks.

Overloading a plug socket or extension lead is a fire hazard and must be avoided.



*Figure 40: overloading plug sockets can result in fire (source of photograph: topline.ie)*

## 8 Record Keeping

Good record keeping is vital to meeting the requirements of a licensed greyhound trainer. Recording the movement of greyhounds and veterinary and other treatments are conditions of licence, as are the completion of registration, licensing and retirement forms.

### 8.1 Sudden Death of a Greyhound

Any sudden death of a greyhound whilst in the care of a licensed trainer must be reported to the GBGB and the trainer's Stipendiary Steward immediately. The GBGB or the Stipendiary Steward will advise the trainer on what action to take. The cause of death may be established by a post mortem if undertaken rapidly. The GBGB will work with your local veterinary surgeon in dealing with any investigation.

#### **Sudden Death Reporting Line: 0207 822 0929**

Please note that the above telephone number is an answering machine service. Messages will be relayed to a person appropriately qualified to answer regularly during GBGB office hours.

**For emergency advice please contact your local veterinary surgeon.**

### 8.2 Treatment Book and Kennel Book

Trainers must maintain their GBGB Greyhound Treatment Books and GBGB Kennel Books in accordance with the requirements set out in such books.

Trainers should be aware that the following must be recorded in the Treatment Book:

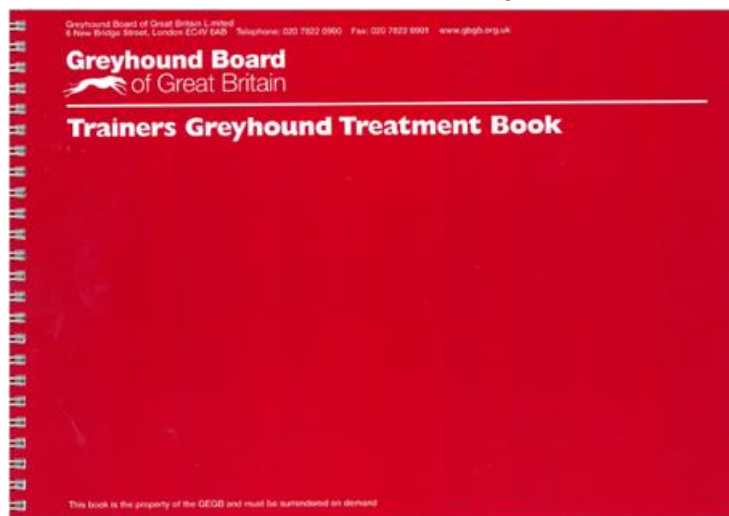


Figure 41: Trainers Greyhound Treatment Book

- All medications, vaccinations and treatments given under the instructions of a veterinary surgeon.
- Any directions given by the treating veterinary surgeon such as duration of rest before or after trialling or racing, or further treatment required.
- All routine treatments such as worming or parasite control.
- Use of oestrus suppressants with full details of the preparation used, duration of treatment and daily dosage prescribed.
- Any supplements, herbal preparations, tonics, medicaments or other substances administered to, or applied to, a greyhound.

Date of treatment or onset of oestrus	Name of Greyhound	Condition for which treatment administered	Details of treatment of any type including daily and total dosage, & route of administration	Signature and printed name & practice stamp of prescribing veterinary surgeon for all medicines	Date racing Manager notified where applicable	Additional notes including period of rest advised, further treatment required etc.
02/01/2016	Greyhound 1	In season	n/a		02/01/2016	
07/01/2016	Greyhound 2	Sickness and diarrhoea	- <u>Synulox</u> 250 mg tablets twice daily 5 days - Bland diet	J. Herriot MRCVS All Creatures Surgery	08/01/2016	Off racing during treatment +7days provided symptoms cleared
12/01/2016	Greyhound 3	Muscle tear right shoulder	- Massage twice daily, lead walk only 2 weeks - <u>Rimadyl</u> 50 mg tablets 1 daily 7 days	J. Herriot MRCVS All Creatures Surgery	12/01/2016	Recheck 3 weeks by vet
13/01/2016	Greyhound 4	Oestrus suppressed	<u>Norethisterone</u> 5 mg ½ tablet daily ongoing	M. Timms, MRCVS Swindon Stadium	13/01/2016	
21/01/2016	Greyhound 5	Split web	- Apply <u>Savlon</u> cream - Amoxycillin 3 ml injection, given by vet	M. Timms, MRCVS Swindon Stadium	21/01/2016	Keep clean and dry until healed

Figure 42: An example of a correctly completed page from a Greyhound Treatment Book. This should be used as a guide for correct completion of the treatment book.

#### Important notes:

- No substance which, by its nature, could affect the performance and/or well-being of a greyhound shall be administered or applied for any reason or in any way for a period of at least seven days before the date of a trial or race. Trainers are cautioned that some medications require a longer withdrawal period than seven days and the responsible veterinary surgeon should be consulted in each individual case. However, the responsibility to ensure that greyhounds are free from any prohibited substance when trialling or racing ultimately rests with the trainer.
- Where a veterinary surgeon has dispensed or administered Prescription Only Medicines (Veterinary) (POM-V), including oestrus suppressants, the veterinary surgeon must state the name of the substance, the dose, route of administration and duration of treatment, and sign the Treatment Book over the practice stamp.
- POM-V products/medicines may only be prescribed legally by the veterinary surgeon responsible for the care of the animal.

It is illegal to administer human POM and Over the Counter (OTC) human medicines to any animal except under the direction of the responsible veterinary surgeon who must make the appropriate entry in the Treatment Book and sign it.

If, for any reason, a Treatment Book is not available when a greyhound is treated, it is the trainer's responsibility to ensure that the entry is made at the earliest possible opportunity by the veterinary surgeon who treated the greyhound. In exceptional circumstances, an entry may be made by the veterinary surgeon on headed paper, duly signed and dated, and this must then be stapled into the Treatment Book on the appropriate page. Trainers should retain the Transport of Injured Greyhound Certificate which is obtained from the veterinary surgeon at the GBGB track and file this in the Treatment Book to provide evidence as to the treatment given to the greyhound at the track.

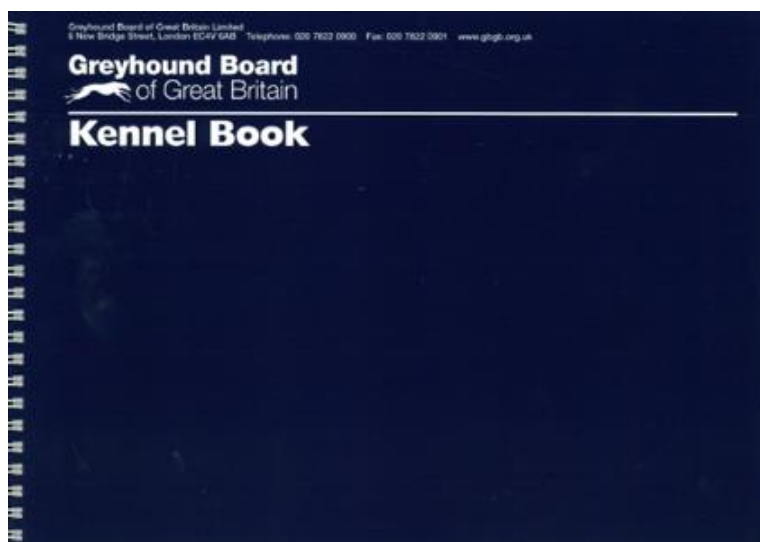


Figure 43: A GBGB Kennel Book

Trainers must make entries in the Kennel Book on the same day that greyhounds enter or leave the kennels. Failing to keep the Kennel Book up-to-date will be considered a breach of the Rules of Racing.

It is good practice and assists with greyhound welfare for a new owner to be provided with, at a minimum, the contact details of any veterinary surgeon who has treated the greyhound to enable continuity of care and knowledge of prior conditions and concerns. The more complete the medical history which can accompany a dog when moving to a new owner, the better.

(1) Name of greyhound	(2) Description & Sex	(3) Ear Marks	(4) Name & contact details of owner	(5) Date in	(6) Person from whom greyhound was received	(7) Date Out	(8) Taken by or delivered to
Greyhound 1	Brindle Dog	MM 123	Phiddy Kempton, Belgravia, London. Tel: 01 245 6064	06 June 2012	Father M Brophy, Killiegh, Co Offaly, Ireland	06 Aug 2016	Owner
Greyhound 2	Black Bitch	MM 321	Phiddy Kempton, Belgravia, London. Tel: 01 245 6064	06 Aug 2012	Father M Brophy, Killiegh, Co Offaly, Ireland	06 Dec 2016	Lucy Smith 123, High Street, London. SE99 2BX Tel: 123 123 1234

Figure 44: A correctly completed page of a Kennel Book. This should be used as a guide. If the greyhound is taken by a person other than the owner, trainer or kennelhand, in Column 8, the full name, address and telephone number of the new owner should be clearly stated.

For further information on record keeping please contact your Local Stipendiary Steward.

### 8.3 Retirement Forms

When a registered greyhound retires from racing, the registered owner shall report, or arrange for a licensed person to report on his or her behalf, the retirement of a greyhound which is not intended to enter in any trial or race again. In accordance GBGB Rules of Racing, owners are required to notify the GBGB of the circumstances of the retirement of a greyhound within 28 days. A fully completed Retirement Form must be submitted to the GBGB Welfare Department.

GBGB Welfare Department Contact  
Tel: 0207 822 0900 (Option 1)  
Email: [welfare@gbgb.org.uk](mailto:welfare@gbgb.org.uk)

Failure to inform the GBGB of a greyhound's retirement will lead to the owner/s being made inactive – meaning that they cannot register any new greyhounds until the required information has been received.

The form is titled "Retirement Form for GBGB-Registered Greyhounds". It includes a section for "DETAILS OF RETIREMENT/DEATH/EUTHANASIA OF A GREYHOUND". The form contains several checkboxes and fields for recording the retirement process, including sections for "The above named greyhound has been retired by its GBGB-registered owner or trainer", "The above named greyhound has been placed in the care of the National Greyhound Trust or other animal charity", and "The above named greyhound has been given or sold to a new owner / a licensee that is not for racing". The form also includes a section for "Additional comments" and a declaration at the bottom.

Figure 45: GBGB Retirement Form

## 8.4 Registrations

Both trainers and owners of greyhounds are required to ensure that greyhounds race under the correct ownership. A GBGB Registration Form must be completed in full and will be forwarded to the GBGB by the track's racing office when the greyhound is presented for registration. Owners that have not previously registered greyhounds with the GBGB must provide supporting documents as proof of identification and address. A subsequent change of address must be notified to the Registration Department within 28 days.

### GBGB Registration Department Contact

Tel: 0207 822 0900 (Option 2)

Email: [registry@gbgb.org.uk](mailto:registry@gbgb.org.uk)

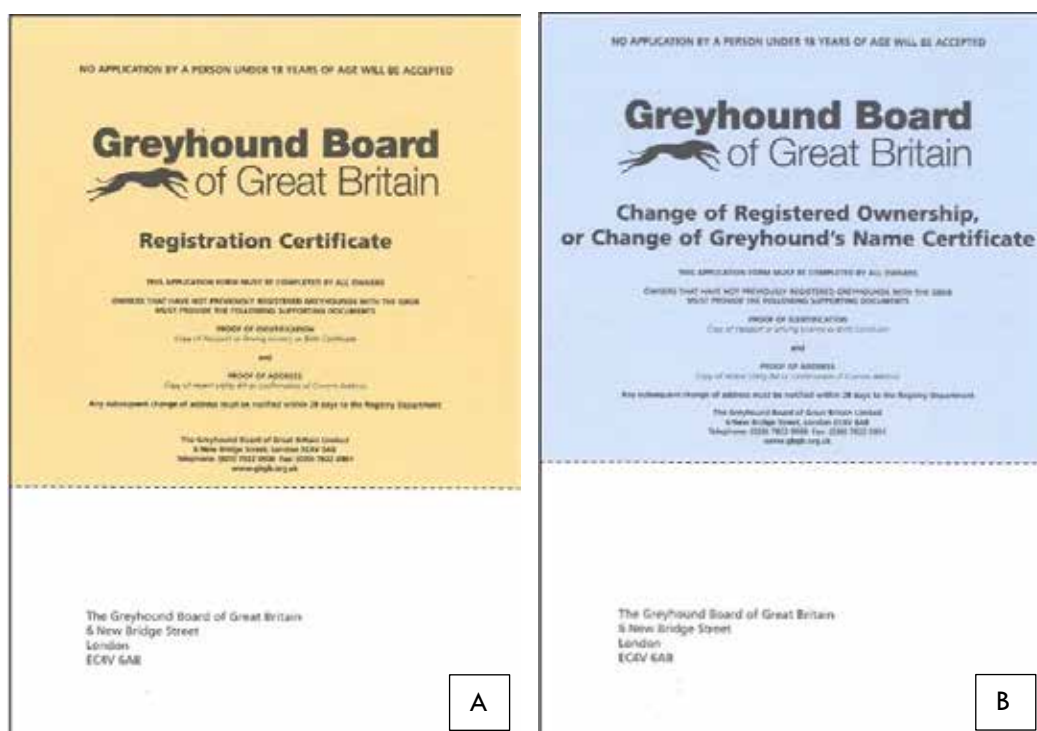


Figure 46: The front covers of a GBGB Registration Certificate (A) and Change of Registered Ownership, or Change of Greyhound's Name Certificate (B).

## 8.5 Change of Registered Ownership

Failure to give notification to the GBGB of a change in ownership within 28 days may result in **disciplinary action**.

A Change of Registered Ownership form (figure 46(B)) must be completed with each subsequent sale or transfer of a racing greyhound. The former owner of the greyhound must complete both the declaration slip and forward to the GBGB Registration Department and sign the change of ownership form before passing this to the new owner. GBGB will hold the last registered owner responsible for the welfare of a greyhound until such time as a change of ownership form is fully completed and accepted by GBGB Registration Department.



## Appendix 1:

### Body Condition Score Chart for the Greyhound

Body condition scoring is a useful way to assess the body condition of your greyhounds and should be used, alongside regular weighing, to ensure that greyhounds are maintained in optimum body condition. A scoring guide (figure 1.1) can be used to assist trainers and kennelhands in assessing body condition. It can also allow trainers, kennelhands, veterinary surgeons and others to communicate to each other about the body condition of a particular dog and to monitor changes in body condition.

The scoring system outlined below evaluates the prominence and visibility of the ribs, spine and pelvis bone, waist and neck visibility, and amount of body fat and muscle<sup>[27]</sup>. A greyhound in race condition should have a body condition score around 3-4. A greyhound at rest should be score 4. Body condition scoring and monitoring of body weight should be used to achieve and maintain the optimum body condition of a greyhound and therefore achieve its best possible welfare and performance.

Where greyhounds are in lower than optimum condition scores (0-2) the cause for the low body condition should be investigated. There are many reasons why a dog might be of low body condition, but some of the more common reasons include:

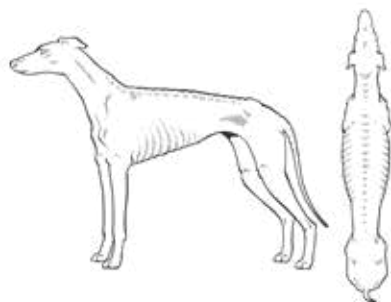
- Inadequate nutrition (quality and/or quantity)
- Parasite burden
- Increased energy expenditure (increased exercise, exposure to cold or hot temperatures, stress (including pain))
- Illness (including vomiting/diarrhoea, malabsorption of food, and others)

If a dog is score 0-1, veterinary advice should be sought immediately. If a dog is in low body condition (2) and fails to gain condition with adequate quantity and quality of food and good parasite treatment (see Appendices 2 and 5) then further veterinary investigation is needed. If you require further advice on feeding, then you should discuss this with your veterinary surgeon.

Body condition scoring may also be used by veterinary surgeons inspecting dogs at the racetrack. Those deemed to be in poor body condition may be considered unfit to compete in races or trials. The track veterinarian should provide guidance on further actions to be taken in improving or investigating poor body condition.

## Body Condition Score Sheet<sup>[27]</sup>

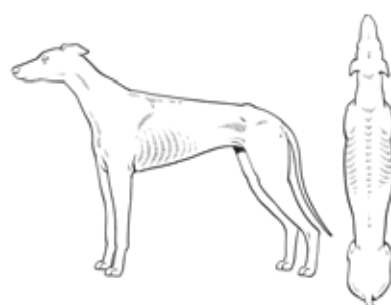
### Emaciated (SCORE 0)



- Individual ribs, spine and pelvis prominent and evident from a distance.
- Lack of muscle mass.
- Little or no body fat.
- Rump hollow.
- Waist prominent when viewed from above.
- Abdomen obviously tucked up.
- Neck thin.
- No fat on tail.

**Veterinary advice must be sought.**

### Thin (SCORE 2)



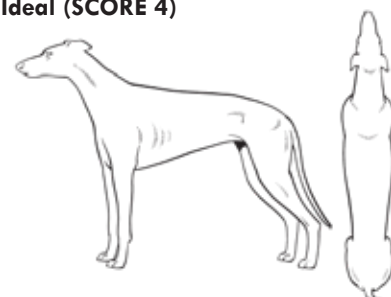
- Ribs, spine and pelvis bones visible and easily felt.
- Little body fat.
- Neck thin.
- Abdomen tucked up.
- Little fat on tail.

Obvious waist when viewed from above. Increase feeding and worm dog if not wormed recently (ensure wormer covers all worms)

**Seek veterinary advice if dog remains underweight or unsure of feeding or worming regime.**

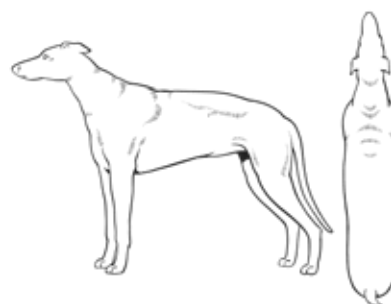
Racing greyhounds have a condition score between 3 and 4.

### Ideal (SCORE 4)



- Ribs and spine can be felt, last few ribs may be visible.
- Dog should have a waist when viewed from above.
- Belly is tucked up when viewed from side.
- Good muscle mass.
- Rump well-muscled.

### Overweight (SCORE 6)

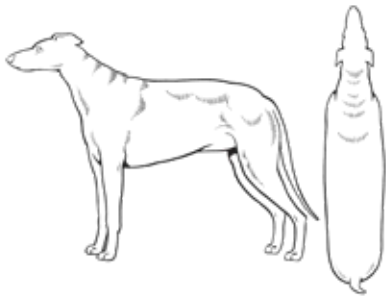


- Ribs and spine not visible but can be felt.
- Fat deposit on tail.
- Little or no waist when viewed from above, rounded appearance, back appears broadened.
- Dog squarish along back line when viewed from side.
- Abdomen not tucked up, may appear rounded underneath.

Reduce feed intake or provide lower calorie feed. Increase exercise.

**Seek veterinary advice if unsure of appropriate diet or concerns over exercise regime.**

### Obese (SCORE 8)



- Ribs and spine not visible and difficult to feel.
- Tail has obvious fat deposit.
- No waist and back broadened when viewed from above.
- Belly obviously rounded and possibly distended.
- Dog square or rounded up along back line when viewed from side.

**Seek veterinary advice on diet and exercise regime.**

Figure 1.1: Body Condition Scoring Greyhounds. Based on Greyhound Racing Victoria: Body Condition Scorecard: Factsheet<sup>[27]</sup>

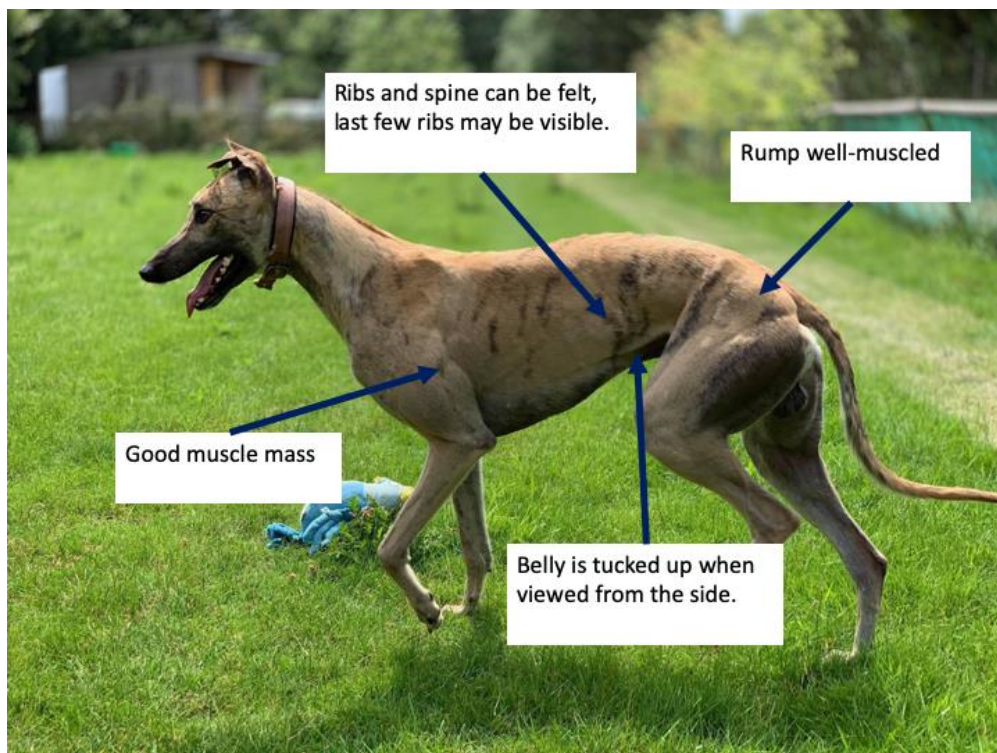


Figure 1.2: An example of a greyhound in body condition score 3-4.



## Appendix 2

### Greyhound Nutrition and Hydration

An adequate and well-balanced diet is paramount to the health and performance of greyhounds. A greyhound's diet should maintain it in optimum health and body condition while also meeting the demands of athletic activity during training and racing. In order to do this, the diet should include a suitable proportion of fat, protein and carbohydrate as well as supplementation of vitamins and minerals where necessary. This Appendix will highlight some key points to help you to formulate a good diet for your greyhounds.



*Figure 2.1: Greyhound body weight should be monitored regularly.*

According to the GBGB rules, racing greyhounds must maintain their bodyweight within narrow margins ( $\pm 1$  kg). This is achieved through careful management of energy and water balance in relation to training and climatic conditions. The body condition (see Appendix 1) and bodyweight of greyhounds should be monitored regularly (at least once per week) to ensure that greyhounds are maintaining a healthy weight and condition and that energy provided in the diet is well-matched to the energy expenditure of the greyhound.

#### Hydration

Good hydration is paramount to the health and welfare of greyhounds and clean, fresh water must be available to them at ALL TIMES. Dehydration has been linked to various causes of sudden death, cramping and post-race distress in greyhounds<sup>[14]</sup>. Greyhounds are particularly vulnerable to dehydration during the pre-race period (travel and kennelling) so it is important that sufficient water is provided in the kennels at stadiums. All dogs should be offered a drink of water on arrival at the stadium, before they are kennelled, as many will be excitable once inside the kennels and may not drink sufficient water inside the kennel.



Figure 2.2: Using lumbar skin tent to assess for dehydration.

If muzzles are used, the water must be provided to sufficient depth to allow drinking through a basket muzzle. However, muzzles should not be used routinely in kennelled dogs as they can restrict dogs' ability to express normal behaviour.

### Feeding Frequency

#### Dehydration

Gently pinching (or tenting) the skin on the back of the greyhound (figure 2.2) and watching to see how quickly it returns to normal can be a useful way to identify a dehydrated dog.

However, it should be noted that dogs are already significantly dehydrated by the time they have an obvious skin tent so a normal skin tent test does not rule out milder cases of dehydration.

Early dehydration is not easy to identify so every effort should be made to prevent dehydration occurring in the first place, by:

- Providing fresh clean water at all times
- Adding water to the diet
- Ensuring adequate levels of fat in the diet
- Minimising the use of muzzles
- Providing more than one bowl of water in shared kennels
- Offering water before kennelling at the track
- Providing sufficient water in kennels at the track
- Ensure the water is cool (not warm or very cold) and that there is sufficient depth and volume to allow easy access to enough water.

Greyhounds must be fed at least once daily, though twice daily feeding is often used (breakfast and evening meal). At least twice daily feeding is recommended. Where a race day meal is given, high sugar (i.e. glucose and honey) should be avoided as this can result in earlier fatigue. A small meal of carbohydrate (slow-release carbohydrate sources such as lightly cooked pasta) boosted with fat or oil given approximately 6-8 hours before racing will provide better energy reserves to help a greyhound cope with the energy demands in the pre-race, and race, period as it will help to replenish and maintain energy reserves.

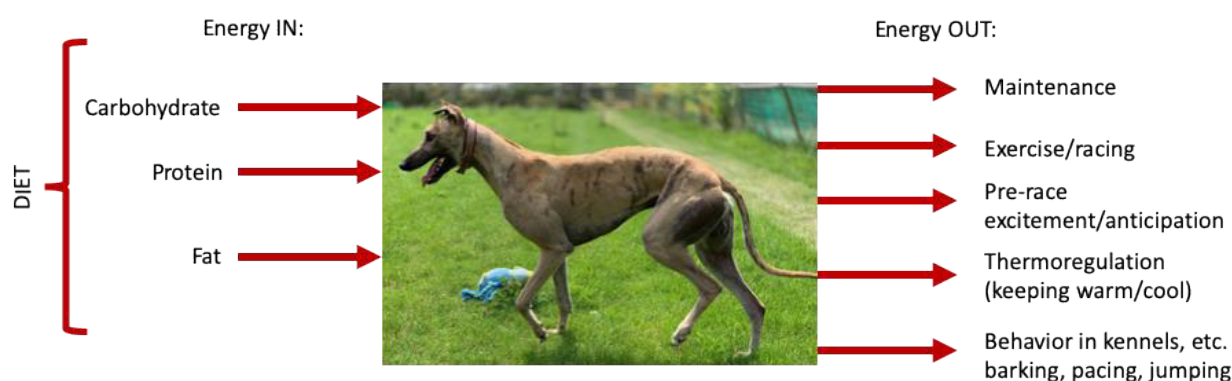
## Energy Balance in the Racing Greyhound

The following section is based on information produced by John Kohnke<sup>[12][28]</sup>

### The Energy Equation

Maintenance (normal body processes) + Thermoregulation (temperature control) + Training + Racing + Behavioural Influences = Total Energy Need.

*“If the ration contains more energy than is needed on a day to day basis, the greyhound will store fat and gain body weight. Where energy intake is insufficient to meet total daily needs, the inadequate level of energy will initially decrease race performance and the animal will then lose body weight and condition” (John Kohnke<sup>[28]</sup>).*



At a constant level of hydration:

If Energy IN = Energy OUT  
The greyhound maintains constant bodyweight  
If Energy IN < Energy OUT  
The greyhound loses weight  
If Energy IN > Energy OUT  
The greyhound gains weight

Figure 2.3: Energy balance in the greyhound.

### Energy Requirements

The total energy requirement of a racing greyhound is the sum of energy required for maintenance, thermoregulation, exercise, and racing expenditure, including behavioural influences and pre-race expenditure.

The following section describes the different energy expenditures for a racing greyhound and how the diet may be adjusted to allow for changes in expenditure.

### Units of Energy

Various different units may be used to describe energy content of foods or energy expended by animals. These will often be shown on bags of dog food and packaging of other food types.

This document uses the metric unit Kilocalorie (Kcal) (sometimes also referred to as Calorie – with a capital C). Some food packaging will use the unit joules, or Kilojoules (KJ), instead. 1 Kcal is equal to 4.184 KJ

#### *Maintenance:*

An average 30kg racing greyhound housed under temperate conditions (15-25°C) requires approximately 1700-2000 Kcal daily<sup>[12]</sup>.

An excitable greyhound, or one housed in a larger enclosure, will use more energy because of panting, barking or hyper-activity in the kennel, and may require up to 2100 Kcal daily to maintain bodyweight and performance<sup>[12]</sup>. In these greyhounds, additional fat included in the diet will increase energy input without significantly increasing ration bulk. A weight check once or twice weekly will enable adjustment of the fat intake to maintain body weight.

#### *Thermoregulation:*

##### *Energy Requirements in Cold Conditions:*

A greyhound housed and raced under cold conditions (10-15°C), will require more energy to maintain body weight and warmth. As a guide, for a 30kg greyhound, for every 1 °C decrease in ambient temperature below 15°C, approximately 40 Kcal should be added to the ration daily (see table 2.1 for a guide of approximate energy content of different feeds). Most greyhounds can consume up to a maximum of 100g extra dry food (in addition to their usual ration) daily without exceeding appetite limits. If a greyhound loses weight, despite adding more dry food, or requires more energy under cold conditions, extra fat should be added to boost energy intake. This provides additional energy without significantly increasing the volume of food given.

##### *Energy Requirements in Hot Conditions:*

If greyhounds are exposed to hot and humid conditions, the energy expended by panting can significantly increase daily energy requirements. Exercise under hot conditions may also deplete glycogen stores (energy stores in the body) more rapidly. This can lead to reduced speed at the end of a race<sup>[28]</sup>.

Hot conditions may also suppress a greyhound's appetite, so a more energy-dense diet boosted with fat will help meet additional energy requirements without adding significant bulk to the feed during hot weather. Increased fat in the diet can also help to counteract dehydration and energy depletion through panting.

As a guide, for a 30kg greyhound, an extra 130 Kcal daily should be added for each 1°C increase in temperature between 26 and 30°C<sup>[12]</sup> (noting that where greyhounds are kept in suitable living conditions with kennel temperatures maintained within 15-25°C, they will be less affected by high outside temperatures). Addition of up to a maximum of 100g of dry food to the diet will provide extra energy. However, for energy needs in excess of this input, additional fat should be used to meet the shortfall in energy requirement and provide a metabolic source of water to counteract dehydration.

NOTE: Dehydration will make dogs less tolerant to hot weather conditions and make them more susceptible to heat-stress. **Adequate hydration is essential.**

#### *Racing Expenditure:*

It has been estimated that an additional 75 Kcal is expended in each 30 second trial or race<sup>[12]</sup>. Under temperate conditions, the expenditure for racing can be provided by the standard diet, provided this is balanced to meet other energy requirements.

#### *Behavioural Influences:*

Excitable, barking, hyperactive or hot greyhounds may expend valuable energy reserves and dehydrate during training, travelling or when kennelled in the pre-race period. A diet boosted with 30-60 grams (or approximately 3-4 tablespoons) of animal fat or vegetable oil in the pre-race meal (about 6-8 hours before racing) will provide extra energy to allow for that expended in the pre-race anticipation. Additional fat is recommended for nervous or hyperactive greyhounds that lose bodyweight, dehydrate, or perform below optimum levels.

### **Help: My greyhound is losing weight!!**

If a greyhound loses weight, veterinary advice must be sought.

There are many reasons a greyhound might lose weight, but any weight loss must be investigated.

Possible causes of weight loss include, but are not restricted to:

- Dehydration
- Inadequate diet (poor quality diet or insufficient energy in a diet can lead to weight loss)
- Changes in environmental conditions (i.e. heat or cold)
- Changes in activity levels (amount of exercise, increased activity in kennel due to unsettled behaviour or changes affecting behaviour)
- Health issues such as parasite burdens or other disease states
- Intolerance to certain dietary constituents (may see loose stools if this is the case)

### **Sources of Energy in the Diet: Proteins, Fats and Carbohydrates**

A greyhound will utilise different forms of 'fuel' depending on the level and duration of activity. In general, the greyhound will utilise the body's glycogen stores during sprint and standard distance races. These fuel stores are established and replenished through feeding of carbohydrate. So, for racing greyhounds, carbohydrate is an important component of the diet.

Protein and fat also provide energy but the process of generating energy from protein and fat is slower and therefore not suitable for rapid, short bursts of exercise. Protein is important for muscle development, repair and other biological functions. Fat provides a high energy dense food which is useful for supplying energy needed for maintenance, thermoregulation, sustained activity such as walking, activity in kennels, and endurance type exercise.

It is important to get the right balance of fat, protein and carbohydrate to suit the athletic activity of greyhounds in training. A dry food based diet, which contains approximately 42% of the energy from carbohydrates, 33% from fat and 24% from protein, provides a good dietary balance to optimise speed and performance over a standard 500m race distance<sup>[12]</sup>. Studies have found that high protein dry foods (with more than 30% crude protein in the diet) may be detrimental to speed and performance<sup>[28]</sup>.

Table 2.1 provides approximate energy content of different feed types as a guide (for commercial diets, this information should be available from the manufacturer or on the food packaging and may be written as Calories or Kcal ME per kg of feed):

Table 2.1: Approximate energy content of different food types<sup>[12][28]</sup>

<b>Ingredients</b>	<b>Amount of energy provided per 100g fed</b>
<b>Lean Raw Beef (10-12% fat)</b>	200 Kcal
<b>Dry food (20% crude protein, 8-10% crude fat)</b>	250 Kcal
<b>Dry food (25% crude protein, 15% fat)</b>	350 Kcal
<b>17g (1 tablespoon) of animal fat or vegetable oil</b>	150 Kcal

### **Fat**

Fat is very energy-dense, which means it provides a lot of energy per gram of feed compared to protein and carbohydrates. Fat is often the cheapest form of energy. Fat also provides a source of metabolic water (every 100g of fat, whether as vegetable oil or animal fat, provides 107g of water to the blood

and tissues when oxidised as an energy source<sup>[28]</sup>). Therefore, fat boosted diets can help to counteract dehydration.

Fat will mainly be provided within the meat content of the diet, though the fat content of meat can vary significantly between types and cuts of meat (see table 2.2). Additional fat can be added to the diet as animal fat (lard) and/or vegetable oil.

Fats also contain the valuable fat soluble Vitamins A, D and E and increase the palatability of the diet. However, animal fat and vegetable oils must be fresh, because if they oxidise or turn rancid due exposure to air, Vitamins A and E are destroyed<sup>[28]</sup>. Therefore, care should be taken when storing fats and vegetable oil to prevent spoilage. Opened containers should be stored in a refrigerator and bottles should not be shaken as the air bubbles within the oil can lead to more rapid spoilage. 'Dripping' from roasted animal fat should not be used in greyhound feeds, but rather fresh fat trimmings from meat or animal fat rendered through boiling or steaming (such as lard).

### Fat in the Diet

*"Relatively small amounts of fat will boost the energy content of the ration dramatically, without significantly increasing the volume of feed. **An overall fat level in the diet of 12- 15% is considered to be most suitable for racing greyhounds.** Lean meats contain about 10-12% fat, and dry foods range from 3-30% fat. Therefore, when very lean meat is combined with a low fat (3-8% fat) dry food, it is essential to add extra fat to the diet to meet energy demands"* Kohnke, 2016<sup>[28]</sup>

Boosting a diet with extra fat can be particularly useful during periods of increased demand (hot or cold conditions) or in hyperactive or excitable dogs.

### Protein

Protein is an inefficient source of energy but is important for muscle development, repair and for many biological functions. However, excessive protein in diets can be detrimental to health and performance. For this reason, moderate protein levels, rather than high protein diets, are preferred. The protein content of the diet will usually be delivered through the dry food and any additional meat added to the ration.

Vegetable proteins do not contain all Essential Amino Acids (EAA) (except for soybean) and so a meat content is critical to supply the EAA. This meat content may be supplied as fresh meat or as part of the dry-food diet. Cheaper, plant based dry foods may lack EAA and this should be considered when selecting diets. Check the list of ingredients on dry food packaging to see if they contain meat.

**Greyhound diets should contain about 15-20% high quality crude protein (on an 'as fed' basis) or 30-35% on a dry matter (dehydrated) basis<sup>[28]</sup>.**

Consideration may be given to providing slightly higher protein in the first two meals after a race to help with repair and recovery following a race. This could be achieved by substituting the normal 17-20% protein dry food for a 25% protein dry food, or adding other higher protein components to the diet such as a lightly cooked egg<sup>[28]</sup>.

### Carbohydrate

Carbohydrate should contribute the highest proportion of energy to the greyhound diet. Carbohydrate will mainly be delivered through complete dry-feeds, vegetables, bread, pasta, etc. in the diet. When adding additional carbohydrate to the diet in the form of bread, pasta, etc. ensure that the total ration remains balanced and does not contain excessive carbohydrate as this, too can lead to reduced performance.

### Carbohydrates in the Pre-Race Meal

**It is unwise to feed short chained, simple sugars, such as glucose or honey in a pre-race snack within four hours of racing.** Studies have suggested that because these soluble sugars are rapidly absorbed, the blood sugar level may become quickly elevated after a meal. This 'switches on' the secretion of insulin, which acts to limit excessive blood sugar levels. Often this response to prevent high blood sugar can 'overshoot' and may depress blood sugar to a level lower than normal. This can make a greyhound lethargic and, if raced within four hours of the feed, the animal may not be able to put in its best performance<sup>[28]</sup>.

Larger, more complex carbohydrates are contained in pasta made from durum (hard) wheat. These are more slowly digested and can sustain a longer energy release when a greyhound is travelling and waiting to race on race day. This should be lightly cooked (so that it is flexible but not too soft)<sup>[28]</sup>.

## Dietary Constituents

### Dry-food

There are many high-quality complete foods available, some of which are constituted specifically for greyhounds. These diets offer a convenient way to provide all the necessary nutrients for greyhounds without the need for adding other ingredients. These generally offer a high fat, moderate protein meal which has low bulk. These 'complete diets' will be balanced to ensure that the correct levels of vitamins and minerals are provided in the diet. While these diets will provide a good and balanced diet when fed alone, some trainers prefer to add other ingredients such as meat, vegetables, bread, etc. However, by adding other constituents to the dry food diet, the overall composition of the ration is altered, and imbalances can occur. Therefore, if additional ingredients are added to a complete diet, the trainer must ensure that the ration is correctly balanced after any additions. An example is where quantities of muscle meat are added to dry food diets, which can result in a ration which has excessive protein levels and may be deficient in calcium, depending on the amount and type of meat added.

As described above, some cheaper plant-based dry foods may lack EAA and a meat component of the diet will then be necessary to provide these. Alternatively, try to select a high quality complete dry food which has meat included in the ingredients. Consulting websites of greyhound food suppliers can be useful for understanding the ingredients of different feeds.

Different types of dry-food should be selected depending on whether they are being fed alone, with a small amount of additional meat, or as part of a high meat content diet. Whichever feeding method is used, the dry food should be chosen which results in a feed that is suitably balanced to ensure adequate, but not excessive, energy and protein in the diet, as well as balanced vitamins and minerals. Table 2.2 gives examples of types of dry food and how they are used alone, or as part of a diet together with varying quantities of meat.

Table 2.2: Grouping of Dry Foods Relative to Energy, Crude Protein and Fat Content<sup>[28]</sup>.

Group	Use	Energy (kcal ME) Per 100g	Crude Protein (%)	Fat (%)	Approx. Daily Amounts for a 30 kg Greyhound
<b>Group 1</b> <b>Kibbles dry food</b>	Meat-based diets	270	13	2-3	200-250 g daily mixed with 700 g medium 12-15% fat meat
<b>Group 2</b>	Minimum meat diets	290-300	17-20	8-10	250-300 g daily mixed with 500-600g of 12-15% fat meat

<b>Group 3</b>	Complete feeds	330-340 360-380	20-25	8-10	550-600 g daily, or 250-300 g mixed with 200-250g medium 12-15% fat meat
<b>Group 4</b>	High-energy complete feeds	400	25-30	20-25	350-400 g daily

### Meat

Many greyhounds are fed high-meat diets. Where lean muscle meat is used, this can lead to a diet which is deficient in fat but has excessive protein, both of which can be detrimental for racing performance. High meat diets may also be deficient in Calcium and therefore should be supplemented with a Calcium/Vitamin D supplement. Advice should be sought from your vet regarding addition of calcium supplements to the diet.

Whole chicken carcasses (minced and cooked) can be a useful meat source as they provide good quality protein, fat (in the skin) and Calcium (in the bones). They are also a useful source of fat-soluble vitamins. Chicken fat is also a rich source and Linoleic acid (an essential fatty acid and omega 6). Red meat can be added to greyhound diets. However, when adding meat, care should be taken to ensure that the rest of the meal is balanced. Where lean (muscle) meat is used, addition of supplementary fat will also be needed.

**TIP: If cooking meat in water, do not discard the water but add it to the feed. This provides additional moisture as well fats and other nutrients, which have come from the meat during cooking. Do not use human gravy mixes to moisten rations and these have a high salt content and should not be fed to dogs.**

Meat can vary in its fat content, depending on the type of meat, the cuts used and the amount of fat within the meat itself. The fat content of beef can be estimated by the relative degree of 'marbling' of the fresh portion of meat<sup>[28]</sup> (see table 2.3). This is the % fat visible within the muscle tissue of the meat. Observation of marbling is best done in whole cuts of beef as it is very difficult to estimate the fat content once beef is minced.

Table 2.3: Degree of 'Marbling' Relative to Fat Content of Raw Beef<sup>[28]</sup>

Marbling Area Within Muscle	Relative Fat Content of Beef
5%	2-3%
10%	5-7%
15%	10-12%
20%	15-17%
25%	>20%

In general, mutton or lamb will tend to have a higher fat content, but a relatively lower protein content than beef, whereas chicken is an excellent source of protein but has a variable fat content. If chicken thigh or breast meat is fed, the fat content is likely to be between 2-5% (and more fat will need to be added to the diet). However, if the skin and underlying fat deposits (e.g. around the vent and tail) are also minced in with the meat, then the fat content may be as high as 15-20% and will help to boost the energy content of the diet<sup>[28]</sup>.

When feeding chicken meat, try to purchase meat with a uniform fat content, and observe food hygiene precautions (see section on food safety and hygiene). It should also be noted that chicken (and fish) meat are low in iron and if feeding a diet based on these meats, veterinary or nutritionist advice should be sought on whether supplements are necessary to correct this.

### Feeding of Animal By-Products (ABPs)

Regulation (EC) no 1069/2009 (ABPR) and the implementing regulation ((EC) no 142/2011) divides Animal by-products (ABPs) into three categories, depending on their potential risk to public and animal health. These categories are:

- **Category 1** – which includes specified risk material (SRM), (the highest risk category) (this meat is stained blue in order to identify it). This category of meat must be disposed of by rendering or incineration and is not available for feeding to greyhounds.
- **Category 2** – high risk – (this meat is stained black in order to identify it). It is available for feeding under certain conditions but may contain drug residues
- **Category 3** – low risk – (this meat does not require staining)

The Greyhound Regulatory Board (GRB) advises trainers of racing greyhounds who are considering whether to feed any ABP, to use only Category 3 meat. Feeding Category 2 meat would be considered an aggravating factor in any enquiry relating to greyhounds testing positive for various medicines that might originate from feeding meat.

Residues of Meloxicam may also be found in Category 2 meat and if this meat is fed to racing greyhounds, drug residues may be found for up to 12 days. Repeat feeding of contaminated meat will result in an accumulation of the drug which may then be detected for a longer period. Cooking will not remove the risk of Meloxicam residues in meat and any liquor from the meat will also present a risk.

#### **Category 2 meat shall not be fed to racing greyhounds within 14 days of a race or trial.**

Animal by-products are defined in article 3 of Regulation 1069/2009 as, “entire bodies or parts of animals, products of animal only in or other products obtained from animals, which are NOT INTENDED FOR HUMAN CONSUMPTION.” When a lower risk category of ABP is mixed or cross-contaminated with a higher risk category, the ABP's in question become high risk. For example, a Category 3 ABP mixed or cross contaminated with Category 2 ABP becomes high risk. As such it may contain residues and is therefore not recommended to be fed to the racing greyhound.

The Food Standards Agency (FSA) is the competent authority for issuing approvals for slaughterhouses, cutting plants and game handling establishments. In all other establishments where animal by-products are handled, registration or approval is the responsibility of the Animal and Plant Health Agency (APHA). Trainers intending to use ABP's must only source these products from a premises approved or registered to handle animal by-products by FSA or APHA.

On feeding ABPs to greyhounds, trainers must ensure:

- 1) The kennels are ABP registered by the relevant competent authority (APHA).
- 2) That records of ABPs are kept for 2 years from the date of receipt.
- 3) That the category of ABP received from the supplier is identified on the receipt (sometimes referred to as an animal by-products Commercial (movement) Document which must conform with the requirements under regulation 142/2011 annex VIII Chapter III)

For further information contact APHA or see:

<https://www.gov.uk/government/collections/guidance-for-the-animal-by-product-industry>

Or for further information:

<https://www.gov.uk/government/organisations/animal-and-plant-health-agency/about/access-and-opening>

## Vegetables

Vegetables can be a useful source of carbohydrate, fibre and moisture. However, excessive vegetables can increase the fibre level, bulking the stools and diluting the energy content of the diet.

Whether or not to include vegetables in a greyhound's diet is often based on the trainer's personal preference. Where a high quality dry food is used as the main component of the diet, provided a greyhound is producing soft, well-formed stools and is emptying-out easily, there should be no need to feed vegetables.

Where vegetables are added to the diet, 1 to 1½ cupsful of cooked vegetables mixed into the dry food should be adequate for most racing greyhounds<sup>[28]</sup>. The vegetables fed should consist of a 50% blend of both 'energy' type vegetables such as carrots, rice, pasta (lightly cooked) or potatoes, and 'protein' rich vegetables, such as peas or beans. This mix will provide a balanced nutritional profile, adding energy, protein, fibre and moisture, without bulking out the diet and diluting the energy concentration of the overall meal<sup>[28]</sup>.

Soaking dry food in vegetable cooking water can help retain some of the nutrients leached out from vegetables during cooking and also provide additional moisture in the diet to help hydration. However, water used for cooking spinach should not be added to feeds<sup>[25]</sup>

## Bread and Pasta

### Poppy seeds

Poppy seeds must not be fed to greyhounds as they contain small quantities of opiates and may, therefore, result in a positive dope test. To minimise the risk of poppy seed contaminating food intended for greyhounds, the following precautions should be taken:

- All bread shall be carefully checked and sorted prior to adding to feed.
- All bread that shows contamination with poppy seed shall be discarded.
- All debris in bags and trays shall be discarded.
- All packaged bread shall be discarded if there is any doubt regarding its ingredients.



Image source: littlerock.com.mt

Bread and pasta may be added to diets in order to increase the carbohydrate content of the feed. However, with the availability of good quality dry feeds, the feeding of bread is less commonly used. Lightly cooked pasta may sometimes be used as part of a pre-race meal or as part of a 'vegetable' mix (see above).

It is important to ensure that the feed is correctly balanced so that these additions do not cause excessive carbohydrate in the diet. It should also be noted that some greyhounds may have sensitivity to wheat which may result in soft stools, weight loss, and/or skin irritation. If this is suspected, consult your veterinary surgeon or nutritionist for further advice.

### Bones

Chewing bones will help to clean the teeth and can provide valuable enrichment opportunities for kennelled dogs. However, care must be taken to ensure that bones selected are suitable and safe for dogs to chew so as to avoid the risk of bones splintering while being chewed, or the dog swallowing sections of bone which could lead to intestinal damage or obstruction. Seek advice on feeding bones where you are unsure.

Chewing bones can also provide a natural source of calcium<sup>[28]</sup>. However, these should be provided in addition to a well-balanced diet.

### Cooked Stews

A cooked meaty stew is a well digested meal which may be used to provide additional fluids to counteract dehydration during hot weather, during a short break between races, following traveling or after racing<sup>[28]</sup>.

A meaty stew should contain 50-60% chunky meat with 20% cereal grains, such as barley, brown rice, or whole-meal bread. The remainder can be made up of vegetables, such as chopped carrots, potatoes and celery and water. In stews, the meat is only cooked at about 100°C during the boiling process until the meat is soft, which does not significantly denature the protein and oxidize the fat content<sup>[28]</sup>.

If fatty meat is used in stews, the fat will usually rise to the top of the stew as it cools. For best results, remix this fat into the stew once it is warmed prior to feeding. Even with fatty meat, the amount of fat in a feed should not exceed 10-12% when mixed with vegetables, dry foods and cereal grains<sup>[28]</sup>.

#### **Preparing and Storing Stews by Kohnke (2016)<sup>[28]</sup>**

A large 2-3 litre sized stew can be cooked and prepared 2-3 days in advance, stored in a refrigerator at 4-8°C and then a 750ml portion re-heated as required (see guidance on food preparation) and added to the moistened dry food mix. Meal size portions of stew can also be stored frozen in plastic bags. Stews are an ideal after-race meal, combined with a high protein dry food. Adding a couple of lightly poached eggs will provide a well-digested, palatable meal to assist muscle recovery and help correct dehydration.

Ensure that guidelines for safe storage and preparation of food (including re-heating) is followed to reduce the risk of food-borne disease.

### Tripe

Tripe is lower in energy, protein and fat compared to beef and other meats. It contains about 30% of the energy contained in lean beef and is low in fat<sup>[28]</sup>. If tripe is used then it should be boiled to make it more digestible and mixed into a 50:50 ratio with other lean to medium fat meat, or higher protein dry food. Tripe must be washed thoroughly before use. Tripe offers minimal nutritional value and there is no real benefit to feeding this over other types of meat.

### Vitamins, Minerals and Electrolytes

Trainers are strongly advised to seek veterinary recommendation on the use of supplements in racing greyhounds. Human supplements and other products sourced without veterinary advice may contain inappropriate, or even dangerous, substances that are detrimental to canine health and may, in some cases, result in a positive drug test. A veterinary surgeon with experience in greyhound nutrition, or a canine nutritionist, should be consulted when deciding whether to add a particular supplement to a greyhound diet.

### Electrolytes

Provided a suitable and well balanced diet is fed to greyhounds, and that there is no concurrent illness, the body will generally maintain a good electrolyte balance without the need to add further electrolytes to the diet.

While electrolytes are frequently given to greyhounds during hot weather conditions, they are not generally necessary to rehydrate a greyhound following exercise in warm weather conditions. Greyhounds have different heat loss mechanisms to humans and rely on evaporation of water from the mouth and airways for cooling, rather than sweating. Therefore, greyhounds lose pure water through panting during hot weather but conserve electrolytes. During hot weather conditions, the focus should be on replacing plain water rather than electrolytes.

Replacement electrolytes may, however, be needed where dogs experience vomiting and diarrhoea, during which electrolytes can be lost. Electrolyte formulations intended for dogs must be used in this case as human sports drinks are not a suitable substitute. Veterinary advice should be sought for a dog with vomiting and diarrhoea.

#### *Potassium*

Potassium would rarely need to be supplemented in a Greyhound's diet. Greyhounds have a naturally low blood potassium at rest. However, most greyhounds have adequate stores of potassium within body cells which are released into the blood during exercise. High blood potassium (usually resulting from exercise) can cause dysfunction of the heart muscle and, in extreme cases, can stop the heart. The low resting blood potassium may be an adaptation in the greyhound which makes them more resistant to developing dangerously high potassium levels during exercise. Therefore, supplementation of potassium is generally unnecessary and could potentially be harmful in some situations.

#### *Vitamin D/Calcium*

Supplementation of Vitamin D/Calcium may be needed for high meat diets.

#### *Magnesium*

Magnesium supplementation (which may be combined with selenium in some supplements) may be useful for cramp. If dogs are cramping, the overall balance of the diet should be assessed to ensure that the protein/fat/carbohydrate ratios are correct. Other causes of cramping, such as dehydration, should also be investigated. Seek veterinary advice if you have a greyhound suffering from cramp.

#### *Other Feeds or Feed Additives*

Trainers are reminded that they are responsible under the GBGB Rules of Racing<sup>[25]</sup> for ensuring all food, vitamins, minerals and additives fed to the Greyhounds in their charge are free from any substance that may falsely affect their performance or prejudice their welfare.

Trainers should take care to ensure greyhounds in their charge are not given food or drink containing caffeine, chocolate or cocoa. Trainers should take particular care to check the ingredients of food supplements and various canine "treats". Samples taken from greyhounds that have ingested these substances are likely to return positive for one or more of caffeine, theobromine and theophylline, all of which are prohibited substances. In such circumstances, trainers may be liable to disciplinary action.

### **Anti-doping Information on the GBGB Website**

The Anti-Doping section on the GBGB website contains information that should be of interest and use to all trainers, owners, veterinarians and racing officials.

All notices relevant to anti-doping and medication control that have appeared in the GBGB Calendar are provided on the GBGB website.

Anti-Doping information can be found in the Integrity and compliance section of the website, at:

**[www.gbgb.org.uk/rules-regulation/integrity-compliance/](http://www.gbgb.org.uk/rules-regulation/integrity-compliance/)**

Chocolate can also be poisonous to dogs and feeding even moderate doses can cause illness or even death.

## Food safety and hygiene

### General Food Safety Guidelines

Storage and preparation of food is essential to reducing the risk of food borne disease affecting greyhounds. The following are guidelines for food storage and preparation aimed at preventing accumulation of harmful bacteria on food which could cause sickness:

1. Establish a reliable feed supply.
2. Food should be stored in a functional freezer (monitor temperature to ensure feed remains frozen), fridge ( $< 4^{\circ}\text{C}$ ) or, for dry food, in a closed container to prevent entry of water or vermin (including slugs and snails).
3. Meat should be cooked above  $70^{\circ}\text{C}$  (ideally boiling) before feeding. (Uncooked meat can harbour pathogenic bacteria that are normally killed during cooking)
4. Cool rapidly (to  $20\text{-}30^{\circ}\text{C}$ ) before serving.
5. Cool rapidly to below  $4^{\circ}\text{C}$  if storing cooked food. Use flat trays to allow more rapid cooling.
6. When reheating, heat to more than  $70^{\circ}\text{C}$ , and cool quickly to serve.
7. Maintain general good hygiene in food storage and preparation areas.

### Feeding Whole Chicken Mince<sup>[28]</sup>

Whole chicken mince containing skin should not be stored due to the risk of pathogenic bacteria being present on the skin of the bird when it is processed. It is best to mince whole chicken fresh each day, or remove the skin and freeze small portions of chicken meat and mince enough for one day at a time. Chicken meat must be carefully minced to avoid any sharp bones. Remove skin from the chicken pieces if the mince is to be stored under refrigeration for 24-36 hours, or even when frozen for later use.



## Appendix 3:

### Care of Greyhounds in Extremes of Weather

Greyhounds are very susceptible to both cold and hot conditions and they should be protected from the effects of extreme temperatures at their kennels. Even if greyhounds are not showing signs of illness or obvious discomfort due to cold or hot conditions, prolonged exposure to temperatures outside of the optimum temperature range can lead to chronic stress which will impact on the overall health of the greyhound.

Greyhounds may require more energy (and therefore more calories in food) in both hot or cold weather conditions due to the additional energy needed to keep warm or to cool down (through panting). In hot weather, the appetite can also be suppressed so diets need to be carefully managed to ensure the dog receives sufficient energy in the diet (see Appendix 2).

Kennel blocks should be maintained at a suitable temperature for greyhounds to live comfortably. 15-25°C<sup>[2]</sup> is the ideal temperature range, but they must be kept between 10 and 26°C<sup>[2][24]</sup>. If temperatures fall above or below this range, then additional efforts should be made to ensure the safety and comfort of the greyhounds. This might include addition of fans or air-conditioning units in hot weather conditions or, in cold weather, heating and additional coats to protect greyhounds against the cold.

Using windows for ventilation allows variable airflow through the kennels depending on the weather conditions at the time. In cold weather, greyhounds will need to be protected from draughts but in the hot weather, having additional airflow through the kennel will help with cooling.

#### How do greyhounds regulate their temperature?

Greyhounds need to maintain their core body temperature within a narrow range. They do this by balancing heat loss and heat gain (see figure 3.1). If the heat loss or heat gain mechanisms are overwhelmed by high or low external temperatures, or excessive heat gain through exercise, the dogs will not be able to maintain their core temperature within the 'safe range' and either heat stroke or hypothermia will ensue.

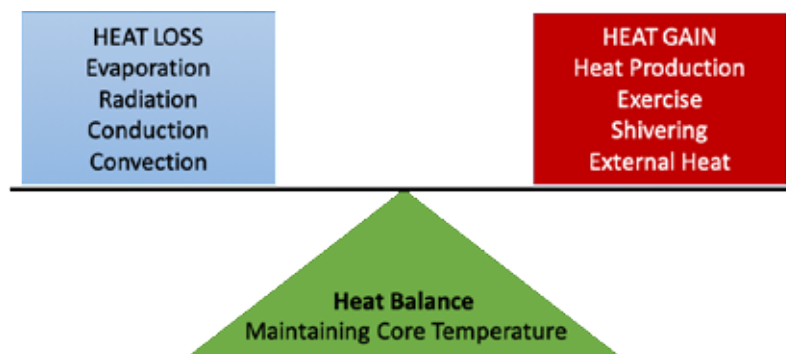


Figure 3.1: Heat balance: maintaining a constant core temperature is a balance between heat loss and heat gain

A greyhound can lose heat in a number of ways. When the greyhound needs to cool down, these mechanisms can be used to improve heat loss in order to prevent the core temperature becoming too high (heat stroke). In cold weather conditions, this heat loss needs to be minimised such that the core temperature does not fall too low (hypothermia). In order to understand how to help a greyhound cool down in hot weather and how to reduce heat loss during cold weather, it is important to understand how heat is lost and gained in the greyhound (see figures 3.2 and 3.3).

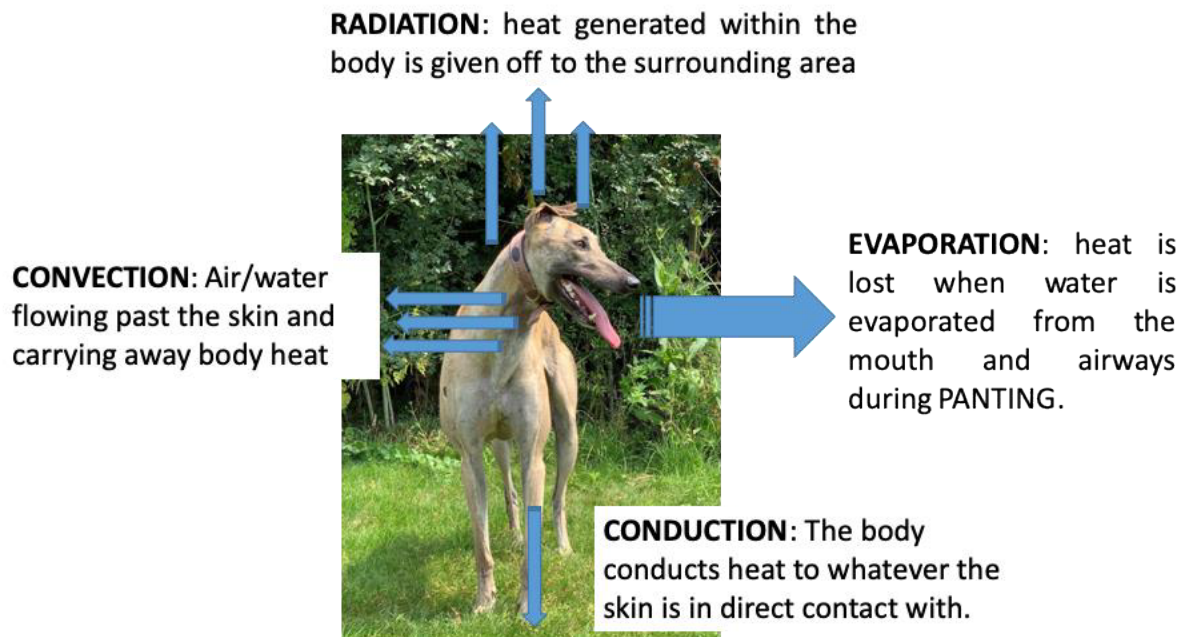


Figure 3.2: Heat loss in the greyhound.

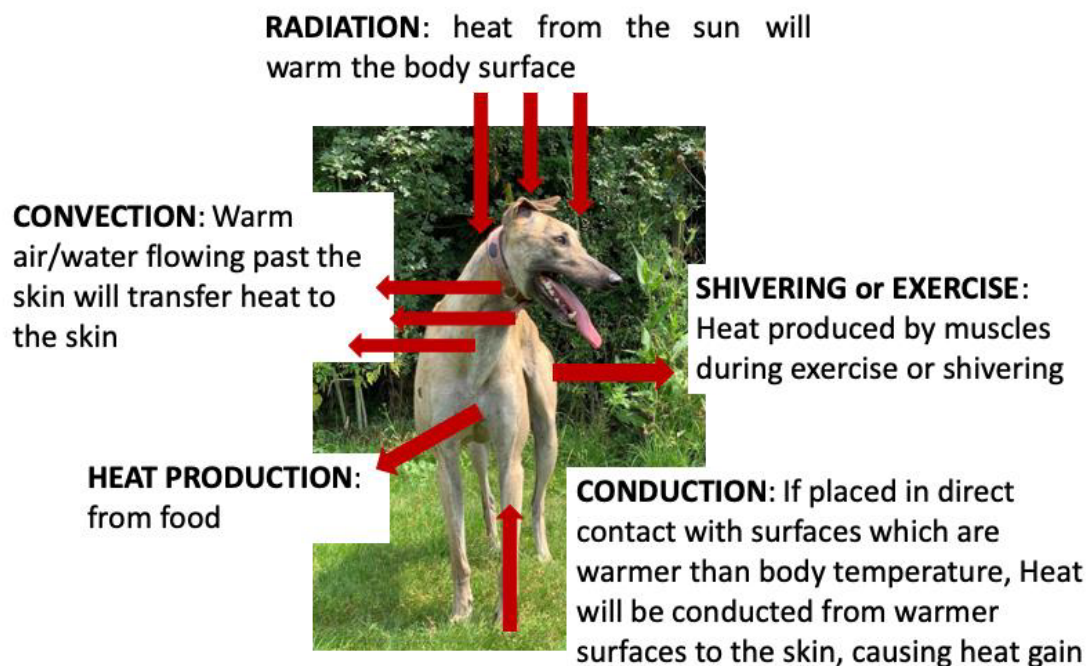


Figure 3.3: Heat gain in the greyhound.

In order to help keep greyhounds healthy and comfortable under different weather conditions, we need to look at how we can help them to maintain a safe core temperature by aiding heat loss/heat gain depending on the situation.

### Hot Weather Conditions: Helping Greyhounds to Keep Cool

Table 3.1 outlines ways in which you can help to keep greyhounds cool in the hot weather by increasing heat loss and reducing heat gain. There are changes that can be made in your kennels to help keep greyhounds safe and comfortable in hot weather conditions.

Table 3.1: Mechanisms of heat loss/gain and examples of how to keep greyhounds cool at your kennels

<b>Increase heat loss/reduce heat gain</b>	<b>How you can help (examples)</b>
Increase loss of heat from the skin to surrounding air	<ul style="list-style-type: none"> <li>• Ensure greyhounds are well hydrated (to allow good blood flow near to skin surface to maximise heat loss)</li> </ul>
Increase loss of heat through evaporation of water from the mouth/airways (panting)	<ul style="list-style-type: none"> <li>• Ensure greyhounds are well hydrated so that there is sufficient water in the airways to help evaporation</li> </ul>
Increase loss of heat by passing cool air over the body surface	<ul style="list-style-type: none"> <li>• Using fans to create movement of air around the greyhound</li> <li>• Good airflow system (open windows, fans, air-conditioning etc. in kennels)</li> </ul>
Increase loss of heat to surfaces/air/water in contact with the dog	<ul style="list-style-type: none"> <li>• Provide a cool area (i.e. a stone/concrete/tiled floor in the shade, or cooling mats, where a greyhound can stand or lie down.</li> <li>• Allow to stand and lie in cool water (provide a shallow paddling pool in paddock and consider a cool pool to stand dogs in after exercise. More effective cooling will be achieved if the water is able to contact the upper hind legs and belly of the dog.</li> <li>• Cool surrounding air using air-conditioning</li> </ul>
Reduce heat gain from muscle activity during exercise	<ul style="list-style-type: none"> <li>• Limit strenuous exercise in hot weather to prevent overheating. If dogs are exercised in hot weather extra efforts should be made to ensure dogs do not overheat AND that they are cooled as needed after exercise</li> </ul>
Reduce heat transfer from the sun	Provide shaded areas in kennels and paddocks

### Managing Hydration in Hot Weather: Pure Water Versus Electrolytes



Unlike humans, dogs do not sweat. Instead, they rely mainly on evaporation of pure water from the mouth and airways to cool down (panting). Therefore, most dogs do not require electrolytes in hot weather. If dehydration occurs due to excessive panting, the body has only lost water and not salts. Therefore, adding extra salts could actually make the dehydration worse and be harmful to the dog. In hot weather, encouraging dogs to drink plenty of fresh, pure water is the best way to correct dehydration. Adding a splash of milk to encourage drinking, using ice-block toys/water fountains and adding extra water (not salty gravy) to the feed will also help with hydration.

If a dog is dehydrated due to vomiting or diarrhoea, or where a deficiency of a certain electrolyte has been diagnosed, then electrolytes may be needed. Seek further veterinary advice if you are unsure.

### When Things Go Wrong: Heatstroke

Heatstroke will occur when a dog's ability to cool themselves is overwhelmed by high external temperatures and/or heat gain due to exercise. Exercise or transportation of greyhounds in hot or humid conditions are both possible causes of heat stroke in greyhounds.

### High Humidity: A Potential Killer

NEVER place a wet greyhound into a kennel and leave unsupervised. Where there is minimal airflow, the surrounding air can quickly become saturated (high humidity) and evaporation, the dog's main cooling mechanism, becomes useless, causing the dog to overheat. If there is good airflow or in cool weather, the greyhound may cool down quickly and become too cold. Wet greyhounds must be dried before returning them to kennels or vans.

NEVER wet the inside of the kennels to try and cool them, this increases humidity and will create an environment like a sauna. Again, greyhounds' cooling systems will not work under these conditions and they can rapidly overheat.

If a dog overheats, mechanisms to cool the dog will kick-in. These include panting and (where possible) behavioural responses such as seeking shady or cool areas. Where these mechanisms are not sufficient to cool the dog, the dog cannot reduce its temperature further and excessive panting will then result in further heat production due to the effort of panting. A vicious cycle will then ensue, resulting in heat stroke

If a dog is dehydrated, water will be conserved by the body in order to maintain blood flow to the vital organs. This means that there is less water available for evaporation (so panting becomes less efficient) and blood flow to the skin and extremities is reduced (so less heat is lost through the skin). In this case, the dog cannot cool itself and its temperature may spiral out of control. Heat stroke occurs when the core body temperature reaches 41 °C and active cooling of the dog is the only way to reverse the cycle. Failure to treat heatstroke rapidly will lead to permanent damage and possibly death.

#### What can I do to help prevent heat-stroke?

Heat exhaustion and heat stroke are entirely preventable conditions when advance planning has been done properly and suitable precautions are taken. Measures should be in place to help prevent greyhounds from over-heating in the kennel environment (see table 3.1). The following measures can be used to help maintain a comfortable environment and help dogs to cope better in hot weather conditions:

- Ensure kennel temperatures are kept below 26 °C (ideally 15-25 °C<sup>[2][24]</sup>)
- Ensure dogs are well-hydrated at all times and have constant access to cool water. Dehydration reduces the efficiency of heat-loss mechanisms in the dog and increases the risk of heat-stroke.
- Maximise airflow through the kennels in hot weather to improve ventilation, remove humid air from inside the kennels, and improve cooling by evaporation/convection
- If ventilation alone is not sufficient to cool kennels, then adding air-conditioning units or fans will help.
- Consider alterations to improve temperature regulation in kennels such as increased insulation in roof spaces, above false ceilings over kennel units and in walls and partitions.
- Ensure paddocks have shaded areas so that dogs can escape direct sunlight. Planting hedges or trees in paddocks can provide some shade while also providing some enrichment to the paddock area
- Minimise the use of muzzles in hot weather.
- Restrict exercise in hot weather conditions. Greyhounds have high muscle mass and generate a lot of heat during exercise. Where dogs are exercised they must be carefully monitored for signs of over-heating and all greyhounds should be cooled after exercise (water pools, wetting coats, provide airflow (fans, air-conditioning, etc.).
- Sight hounds can easily over-exert themselves if chasing in hot weather. Their instinct to chase will generally overpower the need to stop due to overheating and over-exertion is possible.
- Several additional items can be added into the kennel/paddock/routine to help cooling (ice treats, water fountains, sprinklers) which can provide enrichment as well as cooling.
- If a dog appears to be hot (following transportation or exercise) give the dog sufficient time to recover and monitor closely (including monitoring body temperature). Rushing dogs into kennels without proper observation can allow heatstroke to go unnoticed and untreated, with fatal consequences.



Figure 3.4: Standing dogs in a pool, preferably with water that will reach the muscular area of the hind legs, belly and groin area will help with cooling during hot weather conditions. This pool would be more effective if the water level was higher, reaching the main areas where heat is lost from a dog.

### What are the Signs of Heat-stroke?

The following are signs of heat-stroke. Note that not all of these signs may appear at once. If you suspect heat stroke, start to cool the dog and take its rectal temperature immediately.

- Heavy panting
- Drooling (you may see wetting/foam around the mouth, wet front legs or pools of wet in the kennel where saliva has dripped from the mouth onto other parts of the dog/kennel)
- Lethargic, drowsy or uncoordinated
- Vomiting
- Collapsed

### First-Aid for Heatstroke

If you suspect heatstroke then you should move the dog immediately to a cool, shaded area (or air-conditioned room) and take the rectal temperature. You should contact your vet immediately for advice. If the temperature is greater than 40°C, then active cooling should begin straight away (see below). The aim is to bring the body temperature down to normal as soon as possible but without causing shock to the greyhound by sudden exposure to extreme cold. If the temperature is less than 40°C, then the dog should be kept in a cool area and carefully monitored to ensure that it is recovering. Continue to monitor the temperature as it may continue to rise. Any delay in cooling a dog which is suffering from heat stroke could significantly worsen the chances of recovery.

The following should be done to cool dogs with heatstroke (see flowchart in figure 3.7):

- Move the dog to a cool area
- Increase airflow over the dog (fans, natural breeze, etc.)
- Wet the dog's coat using a spray of cool water or with sponges
- Stand the dog in cool (not ice-cold) water – ideally this should be deep enough to reach the belly and groin area as this will allow more rapid heat loss (keeping the water moving around the dog will speed up heat loss)

- draping wet towels over dogs (figure 3.5) is not the best way to cool a dog as the water and towel will rapidly heat up and then hold the heat next to the dog's skin. If this is used, towels should be refreshed (removed, wet and cooled) very frequently. Wetting the coat and allowing air to flow over it is more efficient.



Figure 3.5: Draping cold, wet towels over a dog can help to cool but towels *MUST* be removed and re-cooled very frequently. Once the coat is wet, better heat loss will be established by allowing cool air to flow over the wet coat.

- Cool packs (figure 3.6) may be held in the groin area to increase heat loss (large blood vessels flow near to the surface in the groin so heat can be lost more rapidly by cooling this area).
- Provide cool water for drinking (frequent small drinks)
- Continue to monitor the rectal temperature and stop active cooling when the temperature reaches 40°C. It is important that cooling does not continue until the temperature reaches normal resting temperature (38-39.2 °C) as the dog will continue to cool down and then may become too cold. A dog should not be cooled to the point of shivering.
- Once the temperature reaches 40°C keep the dog in cool surroundings and contact your vet for advice on transportation to the veterinary surgeon. Dogs with heatstroke will usually be dehydrated and may have suffered organ damage. They must be assessed by a vet and will often be placed on a drip. Continue to monitor the dog's temperature to make sure it is returning to normal rather than increasing. Continue to offer drinking water.
- Dry the dog with a towel once the temperature is below 40°C and don't place in confined spaces (vans/kennels) until the coat is dry.
- Take the greyhound to a local veterinary surgeon in a cool vehicle (avoid travelling long distances to your vet).

**DO NOT** place a greyhound in ice-cold water or throw ice-cold water over a hot greyhound. This can cause shock due to sudden exposure to extreme cold and can cause a reduction in the blood flow to the skin and extremities which actually reduces heat loss from the skin's surface. Using cool water is a safer and more efficient method of cooling.

What equipment should I keep at the kennels in case I have a dog with heatstroke?

- Rectal thermometers (you should keep several as these are easily damaged)
- Towels
- Buckets
- A constant supply of fresh, cool water
- Cool packs (figure 3.6) (or rubber gloves filled with iced water will suffice) (these are also useful for applying cold therapy to injuries so are useful to have in the freezer at the ready!). Place a cloth between the glove and the skin to prevent ice-burns.
- A pool/bath/tub which is large enough for a greyhound to stand in and, ideally, deep enough for water to reach the belly and top of the hind legs. However, shallower containers can be used and water splashed onto the belly/groin area.



Figure 3.6: These types of cool pack are relatively inexpensive to buy and are re-usable. They are useful for cold therapy following injury and may also be applied in the groin area to aid cooling. (Image source: <https://i.ebayimg.com/images/i/301150839834-0-1/s-l1000.jpg>)

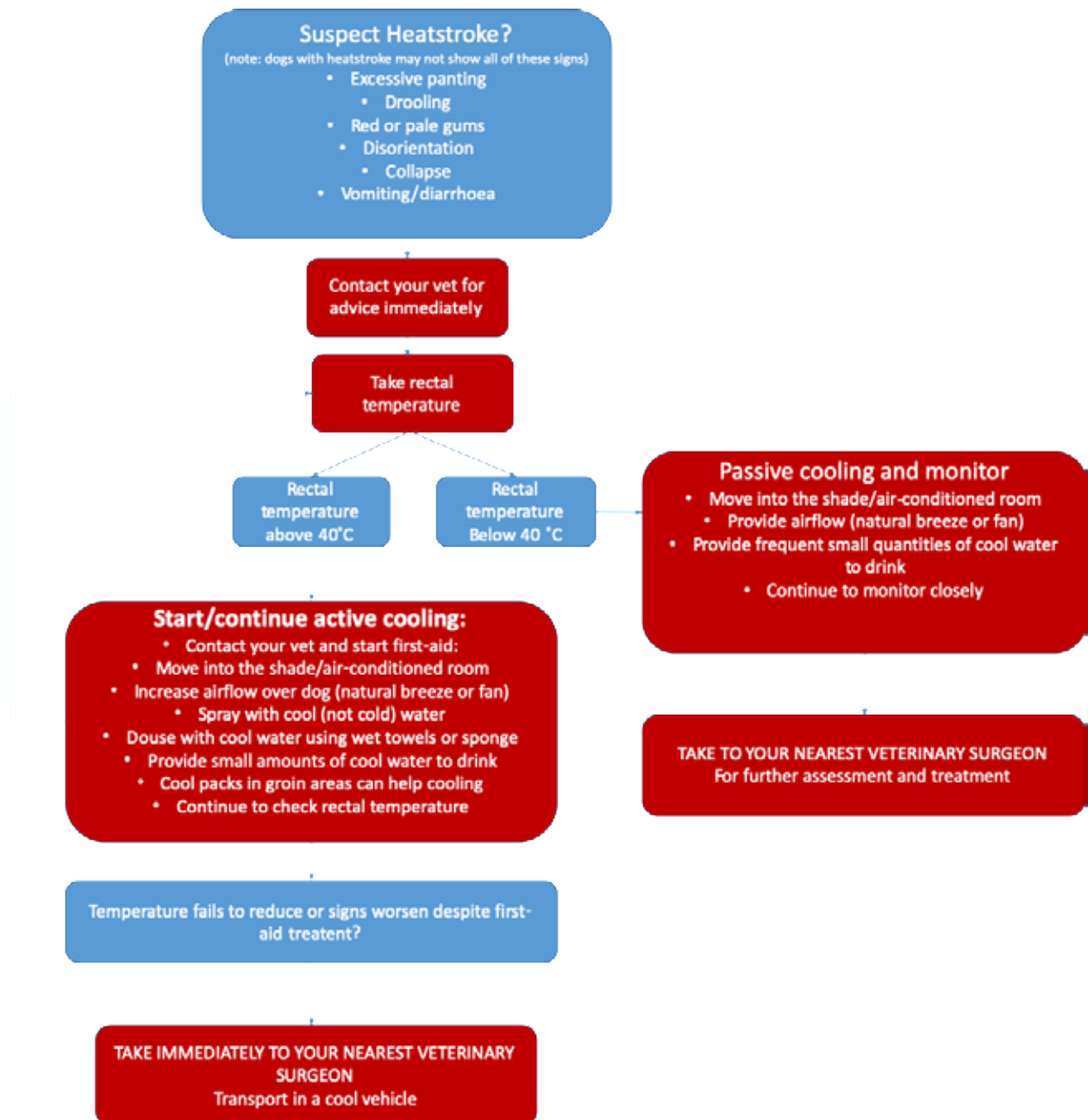


Figure 3.7: Flow chart showing first-aid treatment for suspected heatstroke

### **Transporting Greyhounds in Hot Weather**

Travel in a vehicle is a particularly high risk in hot weather; a greyhound may be excited, denied water, in direct sun in the back of a vehicle, and in high humidity with poor ventilation. Ventilation is often much worse in a vehicle away from the driver, who is often more shaded. If windows are left wide open, there is a risk of escape unless properly restrained, and of eye injury from high speed air flow with particles.

The best, most reliable method of providing ventilation is from a properly designed air conditioning system which controls the climate of the greyhounds' travelling area, not just the driver's section. Second best is the air management system, but you need to be aware that although this circulates air effectively, it does not cool or dehumidify it so it may not be sufficient in all circumstances. An effective air-conditioning system enables greyhounds to travel with the windows closed, and controls temperature and humidity, but provision must always be made for a system or electrical breakdown to cover all eventualities. It is always best to park in shade, away from the excitement of seeing other animals passing by.

Greyhounds must never be left unattended in vans.

**financial help is available for air management systems in vans (contact GBGB)**

### **Cold Weather Conditions: Helping Greyhounds to Keep Warm**

Greyhounds have relatively thin skin and very little body fat. This can help them cool down quickly after exercise, but it also makes them very susceptible to cold conditions. During the cold weather, it is important to protect greyhounds from extreme cold and to maintain kennels at a comfortable temperature. Well insulated kennels will help to maintain a more consistent temperature and addition of heating, coats and good bedding will further help to ensure greyhounds can be kept warm and comfortable during the winter months.

Prolonged exposure to cold living conditions will cause stress in dogs which can lead to wider health implications such as reduced immune system function and problems with other body systems<sup>[2]</sup>. In cold conditions, greyhounds use a lot of energy to generate heat and maintain their body temperature within the correct range<sup>[1 2]</sup>. Therefore, greyhounds subjected to cold living conditions are likely to lose weight if insufficient food is provided to allow for the additional energy needed to keep warm. Greyhounds kept in cold conditions are also likely to have thick, dull coats.

If a dog's ability to generate heat is overwhelmed by extreme low temperatures or prolonged low temperatures, they may develop hypothermia. This must be avoided by providing optimum care at the kennels, during exercise and during transportation.

Certain changes in the kennel environment can help to maintain dogs at a comfortable temperature:

- Kennels should be well-insulated whenever possible (wall/roof insulation and double glazed windows will all help with this).

- Protection from draughts and wet through good kennel construction
- Heating in the kennels where necessary to maintain the kennels at a suitable temperature (between 10°C and 26 °C<sup>[2][24]</sup>, but preferably between 15 and 25°C<sup>[2]</sup>)
- Providing coats when kennels get cold and for use in paddocks and when out walking.



Figure 3.1: coats and warm, dry bedding can be used to keep greyhounds warmer during cold weather.

Table 3.2: Mechanisms of heat loss/gain and examples of how to keep greyhounds warm at your kennels

Increase heat gain/reduce heat loss	How you can help (examples)
Reduce loss of heat from the skin surface by evaporation	<ul style="list-style-type: none"> <li>• Protect greyhounds against wet weather in cold conditions. Use waterproof coats and dry the coat before putting back into the kennel.</li> </ul>
Reduce heat loss caused by cool air over moving over the body surface	<ul style="list-style-type: none"> <li>• Make sure kennels are not draughty and, particularly that the bedding area is protected from draughts.</li> <li>• Deep bedding or bedding that greyhounds can get underneath will reduce airflow over the body of the greyhound and thus reduce heat loss</li> <li>• Put coats on dogs in cold weather to help trap warm air next to the skin.</li> </ul>
Reduce loss of heat to surfaces/air/water in contact with the dog	<ul style="list-style-type: none"> <li>• Provide deep, dry bedding with insulating material (eg. duvets, blankets, shredded paper/'J-cloth'). Placing additional covers (i.e. carpet) over cold surfaces under the bedding will provide further insulation.</li> <li>• Warm the kennel air with heaters or maintain warmer air through good insulation in the kennels (if kennels consistently colder than 16°C, use extra measures to keep dogs warm (heaters, coats, etc.)</li> </ul>

	<ul style="list-style-type: none"> <li>• Kennel coats also provide an extra layer to keep greyhounds warm</li> </ul>
Increase heat gain from muscle activity during exercise	<ul style="list-style-type: none"> <li>• Exercise in the cold will help to warm greyhounds up. However, extended periods of gentle 'warm up' should be given before strenuous exercise in cold weather to ensure the muscles are warm before galloping.</li> <li>• Keep coats on in very cold conditions when doing gentle exercise</li> </ul>
Increase heat transfer from the sun	<ul style="list-style-type: none"> <li>• In cold conditions, allowing access to sunny areas in the paddocks will help keep dogs warm. However, shade must always be available so that the dog has the choice to move out of direct sunlight.</li> </ul>

### Exercising Dogs in Cold Weather

Greyhounds should not be exercised on frozen surfaces. Galloping on frozen sand surfaces or over frozen soil or grass can cause serious injury. Walking or other gentle exercise in cold weather will often require that dogs need to wear a coat in order to maintain a comfortable temperature.

If galloping greyhounds during cold weather conditions, careful attention should be paid to warming up the dog. Running with cold muscles increases the risk of injury.

A wet greyhound will get cold very quickly. If greyhounds get wet during exercise they should be dried with a towel and have a suitable coat put on before going into kennels. The coat should be changed if it becomes wet.

### Chilblains

During cold weather, dogs may be more prone to chilblains which are caused by poor circulation to the extremities. Signs of this include sore tail tips and ear tips. Ear tips can be protected using a homemade "Snood". Woolly tights cut down are useful for this. However, care must be taken to ensure these are not too tight around the neck.

**Similar signs can occur due to other causes so you should consult your vet if a greyhound develops sore ear tips.**

## Appendix 4:

### Infectious Disease: Prevention and Control

This Appendix will focus on two aspects of infectious diseases:

1. Reducing the risk of infectious disease (routine biosecurity)
2. Response to an infectious disease

Infectious disease prevention and control is very important to limit the risk of infectious diseases occurring in greyhounds and to limit the impact of any diseases which do occur, on the welfare of the dogs. Infectious disease prevention and control is also important to minimise the risk to human health as some infectious diseases affecting dogs, or pathogens carried by dogs, can cause illness in people. This risk can be greater for people who suffer from any condition, or are on medication, which causes suppression of their immune system. For all people working with dogs, good personal hygiene such as regular handwashing, not storing, preparing or consuming human food within the kennel area and following routine biosecurity measures in the kennel is essential. If you have any concerns about infectious diseases and human health you should consult with your veterinary surgeon and/or doctor.

#### 1. Reducing the Risk of Infectious Disease: Biosecurity

##### **Biosecurity**

Biosecurity is a term used for all the efforts made to control the incursion and spread of infectious disease<sup>[2]</sup>. Biosecurity aims to reduce the number of infective agents to an acceptable level, reduce the susceptibility of the greyhounds to infectious diseases, and reduce the entry or spread of disease in a kennel.

Infectious disease may enter a kennel in a number of ways:

- On new dogs entering the kennels
- On staff (clothing, hands, footwear)
- On resident dogs returning from the racetrack
- On food/equipment/bedding etc. brought into the kennel
- Via pests, vermin or wildlife with access to kennels, paddocks or exercise areas

Therefore, good biosecurity should reduce the risk of disease entering the kennel in the first place but also minimise the risk that the disease will spread once it enters the kennel.

Routine biosecurity should be incorporated into normal kennel routines and therefore allow normal operating of the kennels.

##### **The Disease Triangle**

For an infectious disease to occur, there needs to be a pathogen (in sufficient numbers to cause disease), a susceptible greyhound (host) and a suitable environment for pathogens to survive (Figure 4.1). Biosecurity measures should interrupt this relationship in order to reduce the risk of infectious disease occurring in a kennel or reduce the spread of a disease within a kennel.

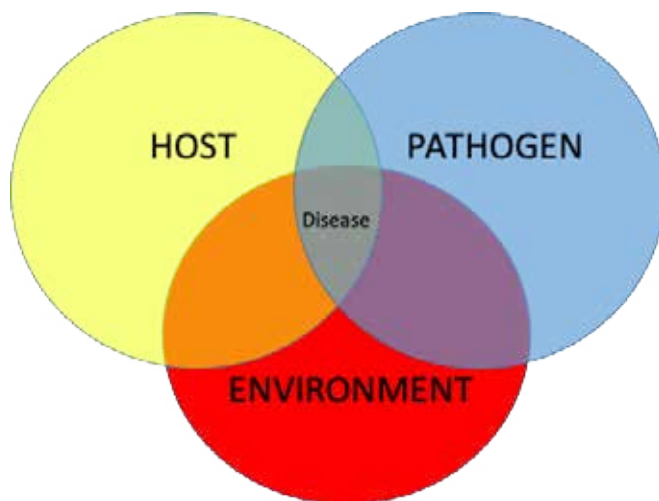


Figure 4.1: The Disease Triangle

Biosecurity measures which should be incorporated into normal kennel routines:

1. Kennel Management
  - a. Maintain clean kennels (daily and weekly cleaning routines, regular picking up of faeces/spilt food, regular changing/cleaning of bedding).
  - b. Monthly deep clean and disinfection.
  - c. Hygienic and correct food preparation and storage (see Appendix 2).
  - d. Vermin control.
2. Dogs
  - a. Quarantine all new dogs entering the kennel.
  - b. Good control of internal and external parasites.
  - c. Appropriate vaccination of all greyhounds in the kennel.
  - d. Good nutrition and adequate hydration.
  - e. Minimise stress in the greyhounds.
  - f. Manage the number of dogs kept at a kennel to ensure optimum care.
  - g. Ensure adequate ventilation in kennels.
  - h. Good hygiene management at the track (to minimise the risk of bringing disease back from the track).
  - i. Maintain clean vans and travel cages through routine cleaning and disinfection after each use.
3. Good staff hygiene (regular hand-washing, cleaning footwear/clothes, etc.)

While this section describes routine biosecurity measures which should be incorporated into the normal daily routine, these measures may need to be tightened at times when disease risk is higher (i.e. if there are known cases of kennel sickness or respiratory disease occurring at other kennels).

#### Kennel Management

##### *Maintain Clean Kennels and Equipment*

There should be a plan in place for routine cleaning and disinfection, with the purpose of reducing the level of pathogens to an acceptable level. Maintaining a good level of general hygiene also helps to reduce odours and dust in the kennels and improve air-quality, which will benefit the health of greyhounds in the kennels.

The following sections provide detailed information on cleaning and disinfection of kennels and communal areas and expands on the information provided in The Code. Details of routine cleaning and other objects such as toys, fabrics, food and water bowls, etc. is provided in section 3.8 of The Code.

### Cleaning Equipment

Equipment used for cleaning and disinfection should, itself, be easily cleanable and should be cleaned and disinfected daily to ensure that pathogens do not survive and accumulate on these items. Natural fibres such as cotton mops or straw brooms can be difficult to disinfect and may harbour pathogens<sup>[2]</sup> whereas plastic scrubbing brushes, micro-fibre clothes, etc. can be easily cleaned and disinfected. Rakes, poop-scoops etc. should also be cleaned and disinfected daily. Ideally, each kennel block should have dedicated cleaning equipment in order to minimise the risk of spreading pathogens between kennel blocks. Isolation areas must have dedicated cleaning equipment and this should be colour coded to ensure that it remains in this area.

### Routine Kennel Hygiene

Routine kennel hygiene should be divided into daily 'spot' cleaning of kennels and a weekly clean and disinfection of the whole kennel. There should also be a periodic (i.e. monthly) deep clean and disinfection of kennels.

#### Cleaning and Disinfection

**Cleaning** is the physical removal of all soiled bedding and litter, dirt, organic debris (urine, faeces, spilled food, etc.) from all surfaces and equipment. Cleaning includes washing with water (preferably hot) and a detergent with good degreasing properties. The result of cleaning should be visibly clean surfaces.

**Disinfection** is a process that inactivates pathogens. Effective disinfection requires proper preparation of the product in accordance with the manufacturer's instructions and application to a clean surface. The recommended surface contact time must be allowed before the product is rinsed off (if necessary) and the surface dried. Anigene<sup>[19]</sup>, Anistel<sup>[20]</sup> or Virkon-S<sup>[21]</sup> are suitable disinfectants for use in kennels and on equipment. **Never mix different disinfectant products as toxic gas can be produced.**

**Cleaning must always be carried out BEFORE disinfection. Disinfection will not be effective when applied to organic matter (i.e. to surfaces which are not clean).**

### Daily 'spot' cleaning of kennels.

This is an effective method to maintain hygiene and comfort in kennels which can be used only where the same dogs continue to occupy a certain kennel and where all dogs are healthy. It is not suitable where different dogs are moving into a kennel or where disease is present in a kennel. 'Spot' cleaning should be performed at least daily, but more frequently if necessary in order to maintain an hygienic and comfortable kennel for the dog.

During 'spot cleaning':

- Remove dog(s) from the kennel
- Remove faeces, spilt or uneaten food, vomit and other organic matter from the kennel
- Clean areas from which dirt has been removed and apply a suitable disinfectant solution in those areas.
- Remove any soiled bedding and refresh with clean bedding to ensure a clean, dry and comfortable bed.
- Allow the disinfectant to dry.
- Allow dog to return to kennel.

### Weekly cleaning and disinfection of kennels

On a weekly basis, each kennel should be thoroughly cleaned such that all organic material is removed, and all surfaces in the kennels are cleaned and disinfected.

During weekly cleaning and disinfection:

- Remove dog(s) from the kennel
- Remove all feed and water bowls and other removable items
- Remove faeces, spilt or uneaten food, vomit and other organic matter
- Remove bedding
- Clean all areas of the kennel according to procedures outlined in table 4.1
- Apply a suitable disinfectant to all areas of the kennel at the correct dilution and allow it to remain for the contact time specified by the manufacturer.
- Rinse after disinfection (if required) and then remove excess water and allow to dry
- Replace fresh/clean bedding
- Allow the dog(s) to return to the kennel

Table 4.1 Stages of cleaning and disinfection (based on information from BSAVA Manual of Canine and Feline Shelter Medicine<sup>[2]</sup>)

Stage	Procedure
<b>1. Cleaning</b>	<ul style="list-style-type: none"><li>• Remove faecal material and any other visibly soiled materials, dirt and debris</li><li>• Clean using a disinfectant with detergent properties or a detergent alone (if the latter is used, the surface should be rinsed before disinfection)</li><li>• Cleaning should start in the cleanest and highest (ceiling) areas first and proceed to the dirtiest and lowest (floor) areas last</li></ul>
<b>2. Disinfection</b>	<ul style="list-style-type: none"><li>• Apply disinfectant to the clean surface at the correct concentration and allow it to remain for the recommended contact time.</li><li>• It is important to adhere to different dilution and application instructions that may apply to products that can be used to both clean and disinfect.</li></ul>
<b>3. Rinsing and drying</b>	<ul style="list-style-type: none"><li>• Rinse the surface after disinfection if indicated</li><li>• Remove excess water or disinfectant (e.g. using a squeegee) from kennels/paddocks and always allow them to dry before allowing the dogs to enter.</li></ul>

### Monthly Deep Cleaning and Disinfection of kennels, paddocks and communal areas

Deep cleaning and disinfection is not part of the daily routine of the kennels but is a process which must be conducted periodically. A deep cleaning and disinfection should be carried out on a monthly basis as part of the general hygiene management of a kennel.

During monthly deep cleaning and disinfection, the following tasks should be undertaken:

- Remove dogs to a secure area
- Remove anything from kennels that is removable (bedding, beds, bowls, etc.)
- The removable items must also be cleaned and disinfected using a suitable disinfectant (such as Anigene HLD<sub>4</sub>V<sup>[19]</sup>) at the required dilution for this purpose
- Protect the electrics.
- Remove gross soiling from all objects, walls and floors.
- Thoroughly clean all surfaces with warm water and detergent (steam cleaners may be useful provided areas are well-ventilated to prevent excessive humidity) see table 4.1 for details of cleaning.
- Apply suitable disinfectant at the correct dilution and allow to dry.
- Carry out essential repairs including sealing porous surfaces.
- Spray again with disinfectant and allow to dry.
- Once the disinfectant has dried, the equipment may be reinstalled and the kennels put back into use. Record the date, and the name of person cleaning the kennels and amount of disinfectant used.
- The same process must be adopted with each van and set of travel cages used for transporting greyhounds.

When conducting periodic deep cleaning and disinfection, not all parts of the kennel area need to be cleaned/disinfected at once but can be done in stages in order to make the task more manageable. For example, kennel block A may be deep cleaned and disinfected on Monday, Kennel block B on Friday and Kennel block C on Sunday. This differs from cleaning and disinfection in response to an infectious disease, where the whole kennel must be cleaned and disinfected within a short period of time in order to eliminate any pathogens causing disease and limit further spread of disease within the kennel.

Protective clothing and observance of health and safety regulations is very important due to the hazards of disinfectant spraying in enclosed spaces. Note that pressure washing can aerosolise disease pathogens, which may then be a hazard for other dogs or humans living and working in the kennels, respectively.

Due to the amounts of water and disinfectant that are likely to be used, consideration must be given to the ways in which the dirty water will leave the premises, including the possible contamination of water supplies.

### Routine cleaning and disinfection of paddocks and other communal areas

As these areas are shared by different dogs on a regular basis, cleaning and disinfection should be conducted on a daily basis.

During daily cleaning and disinfection of paddocks and common areas:

- Remove dog(s) from the area
- Remove all feed and water bowls and other removable items
- Remove faeces, spilt or uneaten food, vomit and other organic matter
- Clean all areas according to procedures outlined in table 4.1
- Apply a suitable disinfectant to all areas at the correct dilution and allow it to remain for the contact time specified by the manufacturer.
- Rinse after disinfection (if required) and then remove excess water and allow to dry
- Allow dog(s) to return to area

### *Hygienic and Correct Food Storage and Preparation*

Food preparation areas should be cleaned and disinfected daily and specific areas should be used for handling raw and cooked food to ensure that there is no cross-contamination between these. All surfaces should be cleaned after use, using hot water and detergent and allowed to dry before the next use. For guidelines on hygienic storage and preparation of food see Appendix 2.

### *Vermin Control*

Good vermin control relies upon minimising available food which may attract vermin to the kennels and, where necessary using appropriate measures to control vermin. The following will help to reduce the risk of vermin:

- Cleaning up any spilt food immediately.
- Proper disposal of waste food (and soiled bedding).
- Regular cleaning of faeces.
- Proper storage of food (in rodent-proof containers).

If rodenticides (rat/mouse poisons) are necessary in order to control rodents, then these must never be placed in areas where dogs can gain access to them and should always be placed inside a suitable container as recommended by the manufacturer.

If a greyhound is suspected of eating rodenticides they must be taken immediately to the vets, along with the packaging of the rodenticide so that the vet is able to see what has been consumed and therefore provide appropriate treatment.

Snail and slug baits are also highly toxic to dogs and should not be used. Where there are concerns about the transmission of lungworm (*A. vasorum*), other management can be used to minimise contact between slugs/snails and greyhounds (see Appendix 5).

### *Management of Dogs*

#### *Quarantine All New Dogs Entering the Kennel*

#### **What is the Difference Between Isolation and Quarantine?**

- Animals in **quarantine** are apparently healthy and are being kept separate from other animals for observation in case they develop disease, and to protect them from exposure to diseases from other animals.
- Animals in **isolation** are animals which are showing signs of disease (or have been in direct contact with animals showing signs of disease) which are separated from apparently healthy animals to prevent the spread of disease.

Quarantine involves holding and managing new dogs in kennels which are separated from the main kennel area with the purposes of checking the health status of new dogs before they enter the main kennel. GBGB rules state that all kennels must have an isolation kennel, built and maintained to GBGB standards, and this kennel can be used for the quarantine of new dogs.

- All new arrivals should go into quarantine for a minimum of 7 days following their arrival. If the dog becomes ill during this time, contact your veterinary surgeon and follow instructions on response to infectious disease (see later section).
- Quarantine can take place in the isolation kennel (this must satisfy the normal GBGB kennel standards)
- Quarantine has the purpose of protecting both the new dog, and the dogs already in the kennels from sudden exposure to new pathogens

- Quarantine allows new dogs time to adjust to the new kennels (routines, diet, noises, germs)
- Quarantine allows time for any latent disease to appear (for example, if a dog was infected with a disease during transport, this might take a few days to show. If the dog is in quarantine, this will help to prevent the disease spreading to other dogs).
- Quarantine provides an ideal time to treat dogs for parasites. For more information on 'New Dog' parasite treatments see Appendix 5.

#### *Good Control of Internal and External parasites*

All kennels should have a parasite control program in place for the routine prevention and treatment of internal and external parasites. There should also be a specific program in place, guided by your vet, for parasite treatment of new arrivals during quarantine. For further information on parasite control, see Appendix 5.

#### *Appropriate Vaccination of all Greyhounds in the Kennel.*

Any greyhounds in Licensed Kennels must be vaccinated with the core vaccines against canine parvovirus, canine distemper, canine viral hepatitis (adenovirus) and leptospirosis in accordance with the manufacturers' instructions.

All vaccinations shall be supplied and administered by a qualified veterinary surgeon and the vaccination certificate (or passport) shall be signed by that veterinary surgeon following administration of a vaccine. Only vaccinations that are approved by the Veterinary Medicines Directorate (VMD) shall be used.

All greyhounds at licensed kennels must have a valid and up-to-date record of vaccination. Full records of all vaccinations and other veterinary treatments shall be available for inspection for each greyhound kept at the kennels.

Where no previous history of vaccination is available, it should be assumed that the dog has not been vaccinated and therefore, a primary vaccination course should be given. Consideration should be given to other non-core vaccinations such as canine para-influenza and Bordetella (kennel cough).

#### *Good Nutrition and Adequate Hydration*

Good nutrition and adequate hydration are very important for optimising health of greyhounds and thus reducing susceptibility to disease. For further information on nutrition and hydration see Appendix 2.

#### *Minimise Stress in Greyhounds*

Prolonged or high levels of stress can impact on an animal's immune systems and other body systems. This can mean that animals exposed to stress repeatedly or over long periods can be more likely to succumb to disease than an animal that is exposed to less stress. Stress can occur as a result of many factors such as fear, boredom, isolation, uncomfortable living conditions, poor health, etc. In order to minimise stress, efforts should be made to ensure that the highest level of care, and adequate enrichment, is provided. Table 4.2 shows examples of stressors in the kennel environment and suggestions of what can be done to reduce these. See section 3.3 of The Code for more information.

*Table 4.2: Causes of stress in greyhounds and examples of interventions to reduce stress*

<b>Causes of Stress<sup>1</sup></b>	<b>Examples of ways to reduce stress (examples)</b>
<b>Pain</b>	<ul style="list-style-type: none"> <li>• Good preventative health – dental health, etc.</li> <li>• Treat any injury or illness (including dental disease and corns) promptly.</li> <li>• Seek veterinary advice and ensure pain relief is given when needed.</li> </ul>

<b>Excessive cold or heat</b>	<ul style="list-style-type: none"> <li>• Kennels should be maintained at a suitable temperature to provide comfort (optimum temperature range between 15 – 25°C<sup>[2]</sup>).</li> <li>• Good kennel design (well-insulated to protect against extremes of temperature).</li> <li>• Suitable coats worn as needed in cold weather.</li> <li>• Protection from extremes of weather while in paddocks.</li> </ul>
<b>Sleep deprivation</b>	<ul style="list-style-type: none"> <li>• Lights should be turned off at night.</li> <li>• Avoid placing security lights where they are likely to disturb dogs and/or are likely to be frequently activated during the night.</li> <li>• Ensure a regular 'night time' where there is a period of quiet and darkness so that dogs have set rest times.</li> <li>• Introduce rest times during the day, during which no-one enters the kennel facility.</li> </ul>
<b>Excessive noise</b>	<ul style="list-style-type: none"> <li>• Kennel layout should help to minimise noise (planting of bushes between kennel blocks, for example, can help to reduce sound between blocks).</li> <li>• Avoid excessive noise during work in kennels (crashing of tools, shouting, loud music, crashing food and water bowl, etc.)</li> <li>• Using non-metal bowls which emit ultrasonic frequencies.</li> <li>• Use sound insulative material during kennel construction.</li> <li>• Addressing other factors such as providing greater enrichment may help reduce noise from other dogs (barking, jumping at doors, etc.)</li> <li>• Minimising the number of dogs any individual has to pass when entering and exiting the kennel</li> <li>• If loud traffic noise, other external noise from kennels, look at ways to reduce the impact of this (restful music/radio playing, planting of hedges/shrubs to provide a barrier to noise from roads, etc.,</li> </ul>
<b>Disease</b>	<ul style="list-style-type: none"> <li>• Good biosecurity.</li> <li>• Good preventative healthcare (i.e. vaccination and worming).</li> <li>• Good nutrition.</li> </ul>
<b>Injury</b>	<ul style="list-style-type: none"> <li>• Prompt recognition of injury (including careful assessment following races or trials).</li> <li>• Seek veterinary advice as needed.</li> <li>• Suitable treatment of injury (support as needed and pain relief).</li> </ul>
<b>Lack of control over one's environment</b>	<ul style="list-style-type: none"> <li>• Environmental enrichment, e.g.: places to hide, free movement from inside to outside where possible, use of platforms or barriers to provide places where dogs can hide if they wish but can also seek visual contact with other dogs and outside environment</li> </ul>
<b>Lack of predictability</b>	<ul style="list-style-type: none"> <li>• Ensure that things that dogs find rewarding and of value are provided at the same time each day and consistently.</li> </ul>
<b>Lack of exercise</b>	<ul style="list-style-type: none"> <li>• Ensure greyhounds have plenty of time outside of their kennel each day, e.g. grooming, treatments, exercise, paddock, playing, etc.</li> </ul>
<b>Lack of contact with people and other dogs</b>	<ul style="list-style-type: none"> <li>• Where possible, greyhounds should be kennelled together provided that a suitable pairing can be made and housed without muzzling.</li> <li>• Contact with humans is important also and should be a frequent and positive interaction between greyhound and human.</li> </ul>
<b>Conflict with other animals</b>	<ul style="list-style-type: none"> <li>• Ensure that greyhounds are paired suitably so that there is not conflict between them.</li> <li>• Avoid feeding dogs together or within direct eye-line of each other, even where they are in different kennels.</li> </ul>
<b>Lack of environmental stimulation or opportunity for dogs to 'use their minds'</b>	<ul style="list-style-type: none"> <li>• Environmental enrichment (see earlier sections)</li> <li>• Provide opportunity for training interactions or solve food puzzles, for example, in order to stimulate the mind.</li> </ul>

#### *Manage the Number of Dogs Kept at a Kennel to Ensure Optimum Care Can Be Provided*

The number of dogs which can be properly cared for at a kennel should not be based on the number of available kennel spaces, but should be governed by availability of sufficient numbers of staff, facilities and finances to provide adequate care for the dogs. If the number of dogs exceeds that which can be properly cared for, there is likely to be reduced cleanliness in the kennels, less time for dogs away from the kennels (due to shortage of staff time and paddock-space) and observation of the dogs will be reduced.

#### *Ensure Adequate Ventilation in Kennels*

Good ventilation is essential for maintaining health in groups of animals housed together. Besides providing oxygen and removing carbon dioxide, excessive moisture, ammonia and methane, proper ventilation also reduces odours, the spread of airborne pathogens and the incidence of respiratory disease. As a guide, there should be 16 air changes per hour in the summer, and 4 air changes per hour in the winter. If this can't be achieved through opening doors and windows, then forced ventilation will be required.

Dust control is also important for ensuring good air-quality. Attention should be paid to cleaning flat surfaces which may harbour dust within the kennel building. False ceilings placed over kennel areas can often become very dusty and should be cleaned regularly to minimise dust accumulation. Storage of equipment, etc. over kennels can lead to accumulation of dust if not regularly cleaned.

#### *Good Hygiene Management at the Track*

When dogs are taken to the track they mix with dogs from many different kennels which may have different pathogens. It is important that tracks maintain a high level of hygiene given that they are places where dogs from different kennels come into close contact. This should include thorough cleaning and disinfection of all kennels when dogs are removed from the kennels and before different dogs are placed inside them. All kennels should be dry before further use. If you feel that the hygiene at the track is inadequate, this should be reported to your stipendiary steward so that it can be addressed. Inadequate cleaning, disinfection or biosecurity at the track may appear as: bad odour in kennel areas, obvious dirt in kennels or in communal areas (i.e. traces of faeces or vomit left in kennels), pooling of water in or around kennels, fleas in kennel areas or dogs allowed to enter kennels when infested with fleas. Any such situation should be brought to the attention of your stipendiary steward.

The following measures may be taken to minimise the risk of infectious disease passing to your dogs at the track:

- Do not share muzzles, bowls, equipment, etc. with trainers from other kennels.
- Always wash hands before and after handling dogs from other kennels.
- Avoid mouth to mouth contact between greyhounds at the track.
- Always clean and disinfect muzzles after each use. A suitable disinfectant such as Anigene HDL4V<sup>[19]</sup> can be used, provided manufacturer's instructions on preparation and use are followed.

## Good Staff Hygiene



Figure 4.2: Hand washing is an important aspect of routine biosecurity and helps to prevent spread of pathogens between dogs and between dogs and humans (image source: <https://drimanfirmansyah.com>).

Staff can inadvertently cause the spread of infectious disease into, or within, kennels. Good hygiene practices should be used to minimise this risk. Staff should regularly wash hands during the day to reduce the level of bacteria (or other pathogens) on the hands. Hands should be washed with warm water and soap, and dried thoroughly. The World Health Organisation (WHO) provides guidance on handwashing<sup>[29]</sup>. Staff should always wash hands thoroughly:

- Before and after preparing feeds for greyhounds (and between preparing raw and cooked food)
- Before and after very close contact with dogs such as teeth brushing and grooming
- When starting work at the kennels
- After cleaning out kennels/handling soiled bedding/faeces, etc.
- Before handling human food
- Before leaving the kennels
- Before and after handling dogs in quarantine and isolation.

If any dogs are in quarantine or isolation, staff should deal with those last. Ideally, different staff would be used for caring for dogs in quarantine/isolation but this isn't generally practical. The use of shoe covers or different footwear, washing hands and changing outer-clothing before and after dealing with dogs in quarantine/isolation should be done to help minimise any spread of pathogens between the isolation kennel and the main kennel.

Staff should have dedicated work clothes for use at the kennels. Ideally, these should only be used at the kennels and left there for cleaning at the end of the day. If this is not practical, then clothing used at the kennels should be removed and washed when the staff member gets home. Work clothes should be washed at a temperature of at least 60°C.

## 2. Responding to an Infectious Disease

In a densely populated kennel environment an infectious disease may spread rapidly to multiple dogs and could spread to dogs at other kennels through mixing at race or trial events. Given the risk of spread of infectious disease in a kennel environment, early detection and prompt and effective management is essential.

If a disease occurs in your kennel, it is important to respond rapidly in order to treat any affected dogs and to minimise the risk of the disease spreading. Good observation of dogs' health and behaviour will help to ensure that diseases are detected as soon as possible.

An infectious disease plan, which clearly outlines roles and responsibilities of all staff members, should be developed to help staff plan what to do in the event of a suspected or confirmed infectious disease. Figure 4.3 outlines the steps involved in responding to an infectious disease.

If you suspect an infectious disease, there are a number of key things you should do in the first instance (see Figure 4.3). These are described in further detail below:

1. Isolate any affected dogs (where dogs share a kennel, the kennel-mate should also be placed in isolation).
2. Seek veterinary advice – some diseases may be rapidly fatal and so urgent veterinary attention should be sought where an infectious disease is suspected.
3. Report to the GBGB and Disease Surveillance and Monitoring Program and to the racecourse executive of any tracks which might be affected.
4. Thorough cleaning and disinfection of the whole kennel and equipment. Ensure that disinfectant used is suitable for use in animal housing and is effective against the pathogen causing the disease in kennels. Different concentrations are sometimes needed for different pathogens. Always follow the manufacturer's instructions when using disinfectants.

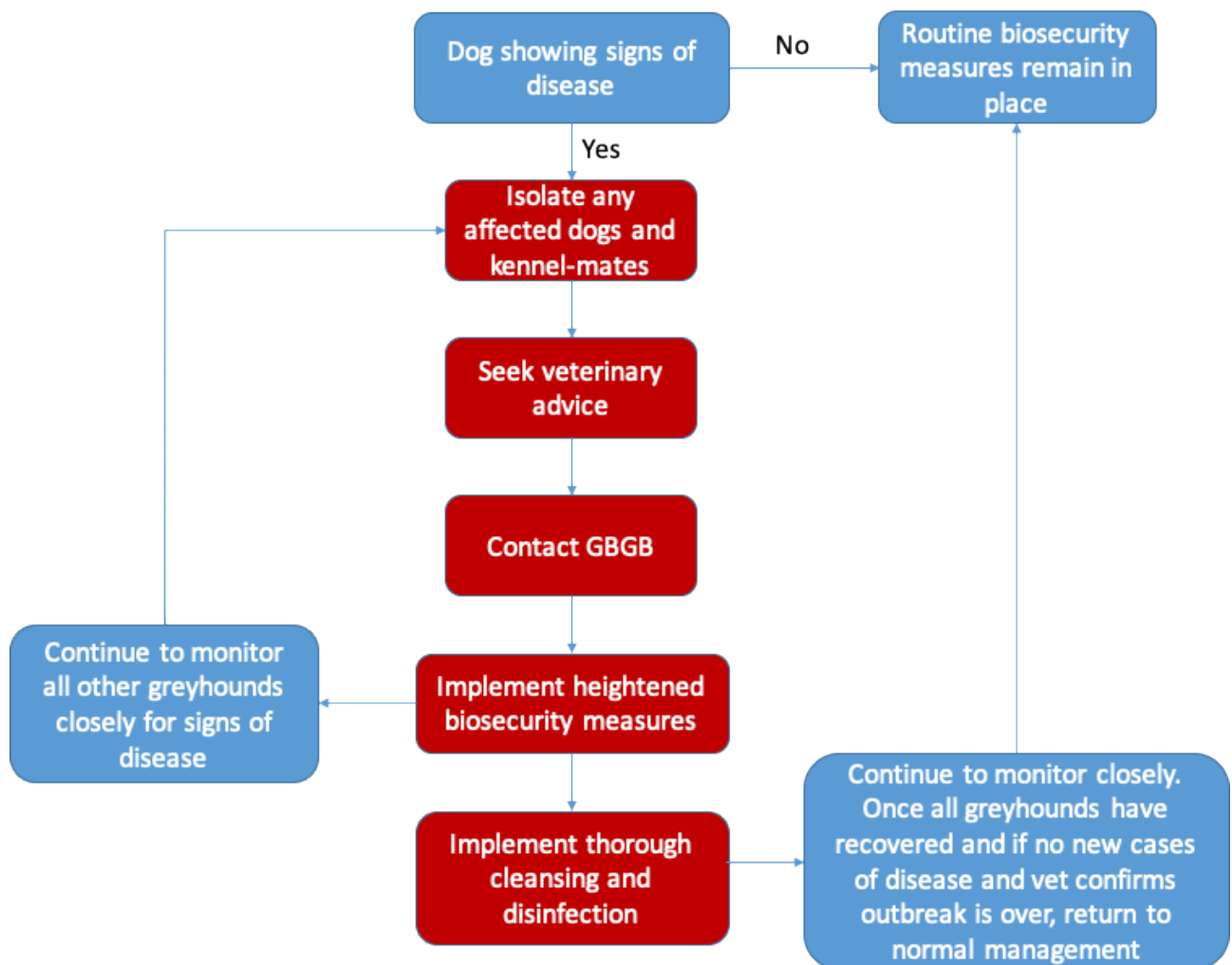


Figure 4.3: Steps in responding to a suspected infectious disease

### Isolation of All Affected (and In-Contact Dogs)

As soon as a dog is suspected of having an infectious disease, it should be isolated. All greyhound kennels must have suitable isolation facilities which allow dogs to be removed from the main kennel to an area which is separated from, and has a separate airspace to, dogs within the main kennel area. The isolation kennel(s) should be constructed to GBGB residential kennel standards (see section 6 of The Code).

Dogs should be kept in isolation until your veterinary surgeon tells you they may be returned to the main

#### **Isolation Facilities**

All greyhound kennels must have suitable isolation facilities available at all times. These must be built to GBGB standards for residential kennels and should be clean and available for use at short notice.

If such facilities are not available, or are not used, then it is likely that the whole kennel will be placed under restriction in the event of a disease at the kennel.

2

kennel. During this time, they should receive any required veterinary attention and treatment. At-risk dogs which are in isolation (i.e. the kennel mate of an infected dog) should be monitored carefully for any signs of illness. Consideration should be given to the physical and psychological needs of greyhounds in isolation.

Ideally, specific staff should be dedicated to the care of dogs in isolation. However, this is often not possible due to staff availability. In this case, dogs in isolation should always be dealt with last so that there is less risk of spreading disease from isolated dogs, into the main kennel. Footwear and protective clothing should be provided in the isolation area for staff to use when working in this area. These items should then be left within the isolation area when staff leave. If this is not possible, facilities for cleaning and disinfection of footwear and hand-washing should be available for use on entering and leaving isolation. See information on cleaning and disinfection for further information.

Isolation kennels should have dedicated equipment which stays within the isolation area, for cleaning out kennels, etc. so that no equipment is shared with the main kennel area. This should be thoroughly cleaned and disinfected after dogs leave isolation, at which time the whole isolation kennel should be thoroughly cleaned and disinfected, including removal and disposal of all bedding material (see instructions on deep cleaning kennels).

### Seek Veterinary Advice

Some infectious diseases may be rapidly fatal and so urgent veterinary attention must be sought where disease is suspected. Dogs requiring veterinary examination or treatment should be taken to a local veterinary surgery. Dogs showing signs of illness should not be taken to the track-vet at the stadium as there is the risk that the disease may spread to other dogs at the track.

### **Registration with a Veterinary Practice**

Each trainer must be registered with a veterinary practice that provides 24-hour emergency care. When registering with a veterinary practice, the proximity of the veterinary practice, and their out-of-hours provision, to the kennels should be considered so that it is close enough to provide emergency care when needed. The contact information and location of the veterinary practice, including the out-of-hours provision, shall be displayed for easy access by all staff.

Injured or ill greyhounds must receive prompt and appropriate treatment at a veterinary surgery. They must not be transported to greyhound stadia for treatment by the track veterinary surgeon.

### **Report to the GBGB and Disease Surveillance and Monitoring Program**

#### **Useful contacts in the event of a suspected infectious disease**

Disease Surveillance and Monitoring Program  
0207 822 0929

GBGB Vet Helpline  
0207 822 0913

Any suspected infectious disease or sudden death of a dog should be reported immediately to the GBGB and Disease Surveillance and Monitoring Program. You will then be provided with further information on how to proceed. If a dog has died, a post-mortem examination may be requested. This will be arranged and funded through the GBGB Disease Surveillance and Monitoring Program. The body should be triple bagged and sealed (i.e. with a cable tie) while you await further instructions.

The GBGB will likely advise on heightened biosecurity measures. Depending upon the situation and the standard of biosecurity already in place, these may include:

- Restriction of movement of dogs on and off the premises (depending on disease suspected and level of biosecurity already in place at the kennels).
- Minimise movement of staff to other kennels, race tracks, etc.
- Restrict visitors to the kennels while disease risk is higher.
- Review of food sources, storage and preparation.
- Review of routine biosecurity .

### **Thorough Cleaning and Disinfection of the Whole Kennel and Equipment**

This is an intensive deep clean and disinfection which takes place in the whole kennel area with the purpose of preventing further spread of disease and reducing the load of pathogens. Suitable equipment and sufficient quantities of suitable detergents and disinfectants should be available for emergency use at the kennels at all times.

A suitable disinfectant for use in kennels (i.e. Anigene HDL4V, Anistel, Virkon S) should be used and each should be used according to the manufacturers instructions, particularly with regard to achieving the correct concentration of disinfectant and allowing adequate contact time. The surface must be allowed to dry before dogs are allowed back into the disinfected area.

During cleaning and disinfection, all normal kennel routines are suspended, and the following tasks should be undertaken:

- Remove dogs to a secure area
- Remove anything from kennels that is removable (bedding, beds, bowls, etc.)
- Protect the electrics
- Remove gross soiling for all objects, walls and floors
- Thoroughly clean kennels with hot water and detergent (steam cleaners may be used)
- Apply disinfectant ensuring that correct dilution and contact time is achieved, according to the manufacturer's instructions and allow to dry
- Carry out essential repairs including sealing porous surfaces
- Spray again and allow to dry
- Include vehicles in cleaning and disinfection.

All equipment including muzzles, coats, non-disposable bedding, staff work clothing and footwear, etc. must also be included in the thorough cleaning and disinfection:

- All fabric items (clothing, bedding, race jackets, kennel coats) should be machine washed above 60 °C or the maximum temperature allowed for the fabric.
- All disposable bedding should be removed and disposed of appropriately.
- Muzzles, food bowls and water bowls should be thoroughly cleaned with hot water and detergent and then placed in a suitable disinfectant (such as Anigene HDL4V<sup>[18]</sup> at the concentration and for the time recommended by the manufacturer).

Once the whole kennel has been cleaned, disinfected and allowed to dry, the dogs should be returned to their kennels, while maintaining any ill and at-risk dogs in isolation. GBGB will advise on how to proceed after this in relation to any controls placed on the kennels due to an outbreak of infectious disease.

## Appendix 5:

### Parasite Control

Adequate control of internal and external parasites is essential in the kennel environment where failure to control these parasites can lead to heavy, and established, infestations with serious impacts on the health and welfare of greyhounds.

The major parasites which will be discussed here are as follows:

#### **Internal Parasites:**

- Roundworm (intestinal worms)
- Lungworm (French Heartworm [*Angiostrongylus vasorum*] and Lungworm [*Oslerus osleri*])
- Hookworm (*Ancylostoma caninum*)
- Tapeworm

#### **External Parasites:**

- Fleas
- Ticks
- Mites and Lice

A detailed program for parasite control which deals with each of the above scenarios will need to be developed, with the assistance of a veterinary surgeon, based on the specific needs of the kennel and the parasite risk-factors present. This document outlines some of the general principles for parasite control with specific examples of control programs.

This Appendix also provides examples of products that might be used for control of specific parasites. Some of the more common brand names are used for easier reference but the same ingredients may be available under different brand names. Seek veterinary advice for specific product information.

In order to effectively control parasites, it is important to have some understanding of the life-cycle of different parasites and how your greyhounds may become exposed to parasites and thus how this exposure can be minimised.

#### **Three different scenarios occur in kennels where specific parasite treatment plans may be necessary:**

1. Parasite treatment of new dogs entering the kennel (during quarantine).
2. Treatment of a known parasite infestation.
3. Routine treatment/prevention of all greyhounds in the kennel.

## External Parasites

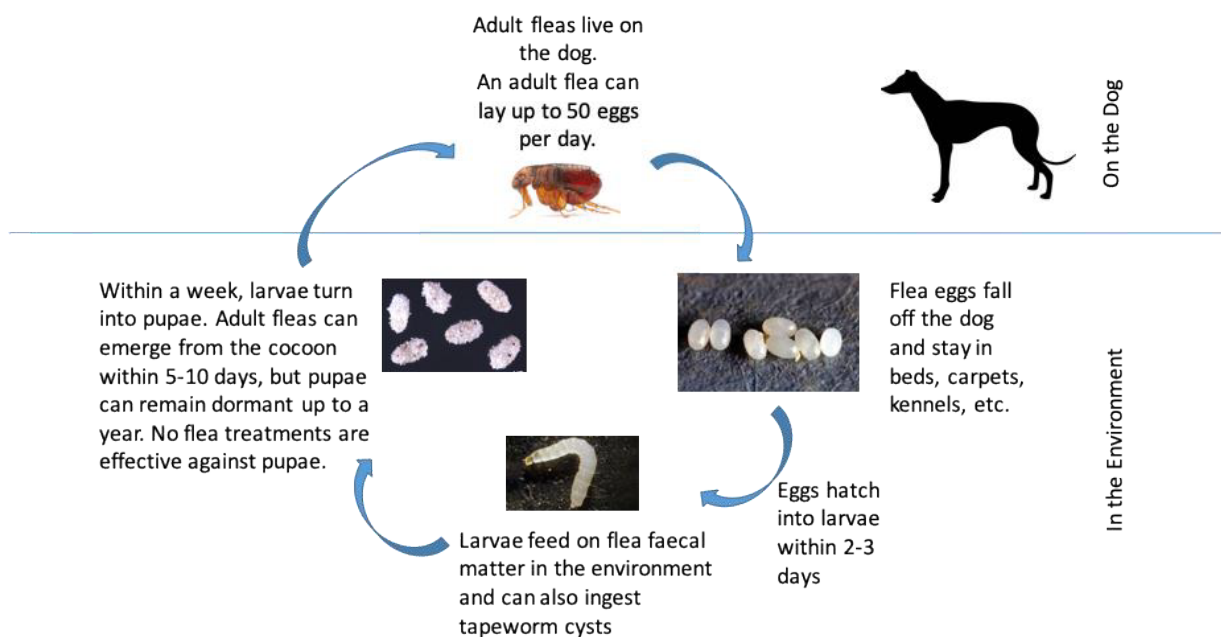
### Fleas

Understanding the flea life cycle (Figure 5.1) is essential for effective control of fleas in the kennel. It takes from 2 to 20 weeks for a flea egg to develop into an adult, with much of this life cycle occurring, not on the dogs themselves, but in the environment around them. One of the early stages of flea development (the pupae) is not killed by insecticides (flea treatments) and can lay dormant for weeks or months. So even where all other life stages of the flea are effectively treated, pupae may survive. Therefore, effective treatment of both the greyhounds and the environment in which they live, will need to be sustained over a number of weeks or months in order to fully clear a flea infestation.

#### Fleas and Tapeworm

Fleas are also an important part of the life-cycle of common tapeworms in dogs. Therefore, effective flea control is an important component of tapeworm control in kennels.

Figure 5.1: Life cycle of a flea



### Routine flea control

In the kennel environment, regular administration of effective, registered insecticidal treatments on dogs should be combined with appropriate cleaning and vacuuming of kennels, beds and bedding. Products administered to dogs should ideally have activity against both adult fleas and immature stages of the flea. Where appropriate, this should be combined with a separate environmental treatment too. The environmental treatment must be licensed for use in animal housing.

The use of flea treatments purchased over the counter in supermarkets, pet shops or over the internet should be used with caution as they may have limited efficacy. A veterinary surgeon should be consulted when deciding which flea treatment to use.

### Key Points for Flea Control

- Regular cleaning of kennels (including changing disposable bedding and washing reusable bedding at a high temperature).
- Treatment of kennels with an environmental flea spray if necessary (where heavy infestation occurs within the kennels).
- Routine treatment of dogs with effective flea treatment at intervals recommended by the manufacturer/veterinary surgeon.
- Effective treatment of all new dogs entering the kennel.

Different products will provide protection against fleas for different periods of time. Many products will also have action against other parasites. Frequency of flea treatment should depend upon the manufacturer's instructions for the specific product used, together with veterinary advice.

Products are available for treating fleas in the environment (example in figure 4.2). Environmental treatment may be needed where flea infestations occur. Dogs must be removed from kennel blocks before treatment begins and the manufacturers' instructions must be followed to ensure that these products are used safely and effectively.



Figure 4.2: Indorex<sup>[30]</sup> is one example of a household flea spray.

### Treatment of known infestation

Infestation of external parasites such as fleas and ticks are easy to detect. With heavy flea burdens, live fleas will easily be visible when hair is parted in several places over the coat. The belly of the dog and on the inner thigh area are where fleas are often most obvious. If live fleas are not visible, infestation may be detected through observation of flea dirt in the coat. This is visible as black specks within the coat and may be felt when running the hand under the chest or belly of the dog. To confirm this as flea dirt, place several specks on a damp tissue and smear the dirt across the tissue. A red, brown colouration from the blood will become visible on the tissue (figure 5.3).



Figure 5.3: A test for flea dirt: place black specks on wet surface/tissue and they should leave red marks/trails. (Image source: [www.classconnection.s3.amazonaws.com/359/flashcards/495359/jpg/paper\\_towel\\_test-14098FD81007C0C1285.jpg](http://www.classconnection.s3.amazonaws.com/359/flashcards/495359/jpg/paper_towel_test-14098FD81007C0C1285.jpg))

#### Signs of flea infestation:

- Visible live fleas and/or flea dirt
- Itching/chewing skin – often this is focused over the base of the tail but can be seen in other areas. There will often be loss of hair/broken hair and inflamed (red) skin.

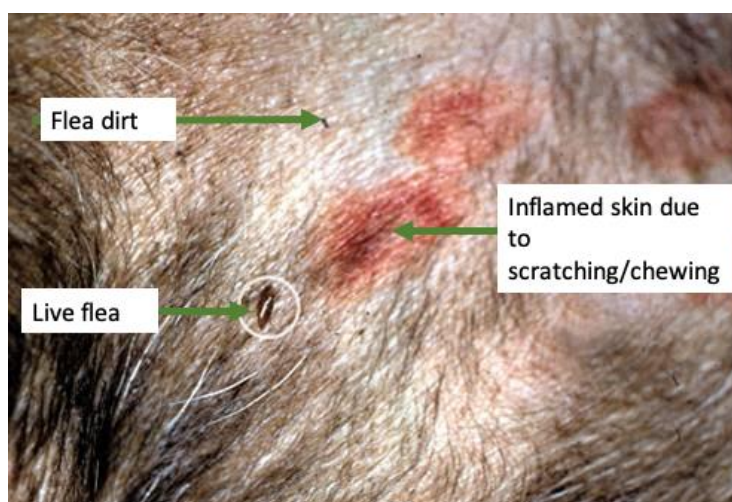


Figure 2: Signs of a flea infestation (Photograph: [www.webmd.com](http://www.webmd.com))

There are many highly effective treatments for fleas with new products coming onto the market all the time. When treating a flea infestation, it is important to treat adult fleas on the dog but also immature stages of fleas which live in the environment around the dog (bedding, floors, etc.). Only by treating the fleas both on the dog, and in the environment will the infestation be effectively stopped. As flea pupae are not killed by flea treatments and can lay dormant for weeks or months, it is important to continue regular flea treatment even after the obvious infestation is over. Flea control should be discussed with your veterinary surgeon to ensure that you use the most suitable product and treatment program for your particular situation.

#### *Treatment during quarantine*

All dogs newly introduced to a kennel should have effective flea treatment applied during the quarantine period. A product should be selected that targets both adult and immature stages of fleas. The quarantine kennel should also be treated with an environmental flea spray.

With adult fleas laying up to 50 eggs per day<sup>[31]</sup>, introducing a dog with fleas into the kennels will rapidly lead to contamination of the kennels with flea eggs and a widespread flea infestation, if not properly controlled. Implementing an effective parasite treatment during quarantine is far more cost effective than having to treat a kennel-wide flea infestation.

#### *Ticks*

Ticks are an important external parasite and can transmit disease, such as Lyme Disease<sup>[18]</sup>. A number of products used for treatment of fleas will also have action against ticks (see table 5.1). Exposure to ticks depends very much on the kennel environment, whether dogs have access to areas with natural vegetation, long grass etc. and the local tick population.

Dogs should be carefully checked for ticks and these should be removed correctly as soon as they are observed. Grooming is a good time to look for ticks. Ticks must be removed carefully and correctly to ensure the whole tick is removed. The use of hot cigarette butts, matches etc. to burn ticks must be avoided as this can cause injury to the dog. Special tick removers are available from vets and online retailers and provide an easy and effective way of removing ticks (figure 5.4).

If a dog develops swelling or reddening on the skin where a tick has been attached then consult your veterinary surgeon.



Figure 5.3: An example of tick removers<sup>[32]</sup>

### Lice and Mites

If lice or mites are suspected, you should consult your veterinary surgeon to ensure it is correctly diagnosed and treated, some of the signs you may see with infestation with mites/lice are:

- Itching (though not always)
- Chewing areas of the body such as feet
- Hair loss
- Crusty skin around ear tips
- Thickened crusty skin on various parts of the head, legs and/or body
- Headshaking, holding head on one side, or scratching ears can indicate ear-mites

Treatment of some mites, such as demodex, require a long course of treatment and multiple appointments with your vet to monitor the success of treatment. Also, other conditions may cause similar signs to mite or lice infestations. Therefore, it is always best to get veterinary advice early if any external parasites are suspected so that proper diagnosis can be made.

### Internal Parasites

A wide range of internal parasites may be carried by greyhounds in a kennel environment. For the health of the greyhounds and for the safety of their handlers, it is essential that these parasites are adequately controlled.

Almost all worms are transmitted by the passage of eggs or larvae in the faeces. Therefore, a key part of preventative worm control is to ensure that contamination of the environment is minimised. This is done through good kennel hygiene and the picking up, and appropriate disposal, of faeces in addition to treatment of dogs with suitable worming products. Preventing access to rodents and avoiding feeding of contaminated raw meat or carcasses is also important for worm control.

This section will look, in more detail, at some of the parasites most likely to affect racing greyhounds:

- Roundworms (intestinal worms)
- Lungworms (*Angiostrongylus vasorum* and *Oslerus osleri*)
- Hookworm (*Ancylostoma caninum*)
- Tapeworms

## Roundworm (Toxocara Species)



Figure 5.4: Toxocara species. (Image source: <https://milfordveterinaryhospital.blogspot.com>)

### Roundworm: A Summary

**Source of infection:** Pups can be infected by their dam, adult dogs can be infected through contact with infected faeces or soil/areas contaminated by faeces, or by eating infected rodents or birds.

**Signs of infection:** These are variable but include diarrhoea, gagging, weight loss (or low bodyweight despite adequate diet), pot-belly appearance, dull hair-coat, poor skin condition, abdominal pain, passing worms in faeces.

**Prevention:** pick up faeces and prevent access to rodents, maintain good general hygiene in kennel and bedding areas. Implement an effective worming regime in pregnant bitches, puppies and across the whole kennel. All new dogs should be treated for roundworms on arrival at the kennel. Veterinary advice should be sought when planning worm control programs.

**Treatment:** A wide range of worming products are effective against roundworm. Examples include: Drontal/Prazitel Plus, Panacur, Advocate, Stronghold. However, many more under different brand names are also available. See table 5.1 for more details. However, veterinary advice should be sought when deciding on the best product to use, depending on the risk factors at a particular kennel and the need to control other parasites.

In order to prevent shedding of roundworms, monthly treatment with an effective product against roundworms is required. Where risk may be lower, 3 monthly treatment may be a suitable compromise. However, when using a 3 monthly treatment, shedding of eggs into the environment may still occur. Veterinary advice should be sought when planning a worming program for a particular kennel.

### Human Toxocariasis

Toxocariasis is a rare infection caused by roundworm parasites. Humans can catch it from handling soil or sand contaminated with infected animal faeces<sup>[33]</sup>. Effective parasite control programs, good personal hygiene of staff when handling dogs, soil, sand, etc. to which dogs have access, picking up faeces as soon as possible and disposing of it appropriately, will help to reduce this risk. However, areas to which dogs have access (particularly sand/grass/soil areas) can still be contaminated, even where they look clean or when faeces have been picked up regularly. Once eggs from these roundworms are in the environment, they can persist for many years.

### Lungworm or French Heartworm (*Angiostrongylus vasorum*)

#### *Angiostrongylus vasorum*: A Summary

**Source of infection:** Eating slugs, snails or frogs

**Clinical signs:** cough, reduced exercise tolerance, breathlessness, and/or bleeding problems.

**Prevention:** pick up faeces, reduce access to slugs and snails, monthly treatment with suitable product (i.e. Advocate)

**Treatment:** Several products are available for treatment of *Angiostrongylus vasorum*. Seek veterinary advice on specific treatments to suit your dogs' needs.

In recent years this parasite has become more prevalent in many areas of the UK<sup>[2]</sup>. Dogs become infected by ingesting infected slugs, snails or frogs. This can occur by dogs eating grass or picking up toys where slugs and snails are present or directly seeking out and eating these creatures.

Monthly treatment with an effective product (see table 5.1) is necessary to prevent disease from lungworm. Whether or not routine treatment is needed will depend upon the kennel environment, the local prevalence of lungworm and the effectiveness of other control measures. Therefore, you should consult your vet for advice on lungworm prevention and control.

Routine measures to reduce the risk of Lungworm infection include general routine measures such as picking up dog faeces quickly (reducing exposure of slugs/snails to potentially infected faeces), don't leave feed/water bowls out when not being used, particularly overnight, where slugs and snails may enter them, and make sure bowls are cleaned every day to reduce the risk of exposure. Do not leave toys in paddocks overnight. Snail or slug pellets should never be used around the kennel facility as these are highly toxic to dogs.

Some dogs infected with *A. vasorum* will develop signs of coughing, reduced exercise tolerance and/or breathlessness. These signs develop due to the presence of the worms in the heart and large blood vessels of the lungs and the associated damage to the lungs. However, some dogs may not show signs of coughing but can present with bleeding problems such as bleeding into the eye, coughing up blood, failure of small wounds to clot as expected, unexplained or excessive bruising, etc. If any of these signs are seen or if you have concerns then seek veterinary advice immediately. Lungworm can be fatal if left untreated.

When dogs enter a kennel, previous exposure to *A. vasorum* will not be known and therefore inclusion of a product with action against *A. vasorum* in the quarantine worming protocol may be considered. Veterinary advice should be sought when planning parasite prevention and treatment programs.

Lungworm (*Oslerus osleri*)

#### ***Oslerus osleri*: A Summary**

**Source of infection:** Access to infected faeces or regurgitated food

**Clinical signs:** cough, reduced exercise tolerance, breathlessness. Mainly affects young dogs and can be a whole-kennel problem

**Prevention:** pick up faeces, general good hygiene

**Treatment:** Products containing Fenbendazole (ensure the manufacturer's advice on the specific dosing for *O. osleri* is followed)

This parasite is not common in the general dog population but can occur and cause problems in some kennels due to the high density of dogs. Dogs become infected by contact with infected faeces, regurgitated food or a contaminated environment. Pups may also become infected through saliva from their dam.

Signs of infection include a chronic, non-productive cough but can also cause various signs such as reduced exercise tolerance and difficulty breathing. However, signs can be quite mild. Clinical signs are most often seen in young dogs (less than 2 years of age). This can frequently be confused with Kennel Cough, especially as signs can occur in multiple dogs in a kennel. Any cough should be investigated by a veterinary surgeon.

Good hygiene in a kennel environment (including regular cleaning of faeces from kennels and paddocks) will help to prevent transmission of this parasite. Any dogs suspected of having this should see a vet for diagnosis. The treatment of *O. osleri* is quite specific and so a definitive diagnosis should be sought. This can usually be done by testing faeces. Where one dog in the kennel is infected, there is likely to be a kennel-wide problem and so investigation of other dogs is necessary.

Although treatment will usually be successful, some dogs with advanced disease may not fully recover. A product containing Fenbendazole (i.e. Panacur) can be used for treatment. A specific dosing regime is needed and so treatment should be directed by a veterinary surgeon. Your vet may take further faecal samples after treatment to confirm that the worms have been successfully treated.

Hookworm (*Ancylostoma caninum*)

Routine control of hookworm relies on a good routine worming program, good kennel hygiene (picking up faeces, keeping kennels and paddocks clean and avoiding exercising dogs in areas where large numbers of dogs, of unknown worming status, may be exercised. Many products can be used to treat hookworm.

New dogs entering the kennels should be treated with a product which works against hookworm.

### Hookworm: A Summary

**Source of infection:** Hookworm eggs are passed in the faeces of infected dogs. Adult dogs can become infected by eating rodents or by ingesting larvae from the environment. The larvae can also enter dogs directly through the skin on their feet. Pups can be infected via the milk of an infected dam.

**Signs of infection:** Anaemia (dogs may become quiet/subdued, reduced appetite, pale gums and/or reduced racing performance), they may also show signs of intestinal or respiratory disease.

**Prevention:** pick up faeces, general good hygiene and regular parasite treatment

**Treatment examples:** Advocate, Drontal, Stronghold, Milbemax, Panacur

### Tapeworm

### Tapeworm: A Summary

**Source of infection:** Ingestion of infected fleas or infected meat, rabbit or rodent carcasses. Some tapeworm species may come from eating carcasses of fallen livestock.

**Clinical signs:** Passing segments of tapeworm in the faeces

**Prevention:** pick up faeces, good flea control, avoid access to rabbit, rodent or livestock carcasses and raw meat.

**Treatment:** Products containing Praziquantel (see table 5.1)

The most common types of tapeworm in the UK are *Diplydium caninum* and *Taenia species*. *Diplydium caninum* is acquired from ingestion of infected fleas or canine chewing lice while *Taenia species* are acquired through ingestion of infected meat or the carcasses of rabbits and rodents. Flea control is therefore an important part of tapeworm control.

Treatment of tapeworm requires a wormer containing Praziquantel. Examples include: Drontal/Prazitel Plus or Milbemax/Milpro

**Note:** Some of the widely used combination flea/worming products (spot-on products such as 'Advocate', 'Stronghold' or wormers such as 'Panacur' do not treat all common tapeworms. See table 5.1 for more information.

Note: Humans can also be infected with tapeworm species commonly found in the UK (*Diplydium caninum* and *Taenia species*). Therefore, effective tapeworm control in dogs, good personal hygiene and good food hygiene is essential in order to reduce this risk. Infection with these types of tapeworm will usually cause few or no symptoms. However, they can occasionally have more serious health implications so it is important to try and prevent infection with tapeworm and to seek medical advice if you suspect you may be infected.

### Hydatid Disease

In some parts of the world (and rarely in the UK) a type of tapeworm (*Echinococcus species*) found in dogs can spread to people and cause serious illness known as hydatid disease. Infections with these tapeworms can be serious and difficult to treat, but simple precautions like getting your dog dewormed regularly and not feeding them raw meat or allowing access to livestock carcasses, can minimise this risk<sup>[34]</sup>.

### Parasite Control Programs

No single product is effective against all common internal and external parasites so decisions on which products to use will depend upon the particular risks at your kennel, preferred method of delivery (spot-on, tablets, etc.), whether any parasites are known to be present, and whether you are treating dogs which have just entered the kennel or ongoing routine treatment of resident dogs. Not all parasite treatment are compatible so you should seek veterinary advice when selecting specific products and combinations of products.

Testing of faecal samples by your vet can also help to identify which parasites are present in your greyhounds, allowing for more targeted treatment.

### Parasite treatment/prevention for new dogs entering the kennel

As the history of the dog entering the kennel is often unknown, a broad spectrum treatment for parasites should be given during the quarantine period. This will help to minimise the risk that new dogs entering the kennel will pass any existing parasites on to resident dogs and/or contaminate the kennel environment. Young dogs entering a kennel with little known history may have heavy internal and/or external parasite burdens.

As a guide, every dog entering the kennel should be treated with a product which:

- Kills fleas (preferably with action against both adult fleas and immature stages).
- Treats intestinal worms (roundworms and tapeworms) and has action against *A. vasorum*.
- It may not be possible to cover all of these with a single product (table 5.1), so a suitable combination of products may be used as part of the 'quarantine treatment' of new greyhounds. These should be provided under the guidance of a veterinary surgeon as some products should not be used together.
- The treatment for *O. osleri* is very specific so will usually be advised by a vet if dogs are considered to be at high risk of this infection, if there are clinical signs suggestive of an infestation of *O. osleri* or where a definitive diagnosis of *O. osleri* infection is made.
- The initial quarantine worming treatment will often need to be repeated following the first treatment. However, the time between the initial treatment and any repeat treatments will depend on the products used and veterinary advice should be sought for specific treatment programs.

### Routine Parasite Prevention/control

A routine parasite control program should be decided along with your veterinary surgeon, based on local conditions and risk factors. Care must be taken to ensure that parasites likely to cause a problem in your greyhounds are targeted by the treatments used.

Monitoring the effectiveness of a parasite control program may be done by faecal worm egg counts. For more information on this, you should consult your vet.

#### Treatment of known infections and infestations

Where a specific parasite is known to be causing illness in a greyhound, where parasites are visible or where parasites have been detected through faecal examination, then a specific treatment should be targeted at that parasite. If parasite infestations are detected, general kennel hygiene, management and routine parasite control programs should be checked and adjusted as necessary to ensure these are working effectively.

If one dog in a kennel has a known parasite infection or infestation, it is likely that multiple dogs will be affected and so a kennel-wide treatment will likely be necessary. However, a vet should be consulted to ensure the most effective treatment is used and to obtain further advice on improving routine control and prevention. Note that some products used for treating clinical disease associated with *A. vasorum* will require a specific dosage regimen. This treatment will be directed by your veterinary surgeon.

*Table 5.1: A table showing some commonly used anti-parasite products. Blue shading means a product is effective at treating that parasite. Note that this is a rapidly changing market so trainers should always consult vets on new products which might suit their needs. Some products may be effective against one species of tapeworm but not others. Only where products are effective against both main types of tapeworm present in UK (*Diplydium Caninum* and *Taenia*) are they shown here to be effective against tapeworm. Note that some products will need to be given at a specific dose rate and duration to be effective against certain parasites so manufacturers' instructions and veterinary advice should always be followed when using these products.*

Active ingredients	Examples (other products are available under different names)	Roundworm	Tapeworm	O. osleri	A. vasorum	Hookworm	Fleas	Ticks
Fenbendazole	Panacur	treatment		treatment		treatment		
Pyrantel, Febantel, Praziquantel	Drontal, Prazitel plus	treatment	treatment			treatment		
Milbemycin, Praziquantel	Milbemax	treatment	treatment		Treatment and prevention	treatment		
Selamectin	Stronghold	treatment					treatment	
Moxidectin, imidocloprid	Advocate	treatment			Treatment and prevention	treatment	treatment	
Fipronil	Frontline/effipro						treatment	treatment
Fipronil, Methoprene	Frontline Duo						treatment	treatment
Fluralaner	Bravecto						treatment	treatment
Afoxolaner	NexGard						treatment	treatment
Sarolaner	Simparica						treatment	treatment
Moxidectin, Pyrantel, Embonate, Sarolaner	Simparica trio	treatment			Prevention	treatment	treatment	treatment



## Appendix 6:

### Dental Care of the Greyhound

#### Dental Disease

Poor dental health can cause pain, tooth loss and loss of bone around the teeth<sup>[22][23]</sup>, and can affect other organs including the heart and kidneys<sup>[23]</sup>, due to the high number of bacteria associated with dental plaque.

Poor dental health is a significant problem in greyhounds when inadequate dental hygiene is maintained. Poor dental health could also impact on racing performance where chronic pain, bacterial infections, etc. may impact on the health of greyhounds. Greyhounds with dental disease may be deemed unfit to take part in trial and race events where track veterinarians consider the condition serious enough to impact on the health of the greyhound.

#### Methods for Maintaining Good Dental Hygiene

##### **Signs of Dental Disease (see Figure 6.1 for a Guide to Greyhound Dental Score)**

- **Tartar (dental calculus):** This starts with a mixture of food particles and bacteria that combine to form a plaque on the teeth. If not treated, this continues to get harder and thicker. As the calculus grows, it pushes the gums back causing the root of the teeth to become exposed.
- **Gingivitis:** Inflammation of the gums. This will show as reddening, swelling and, in advanced cases, obvious infection where the tooth meets the gum.
- **Periodontal disease:** This occurs when inflammation and infection penetrate into the supporting structures of the teeth. Periodontal disease is the result of un-treated gingivitis and will require veterinary treatment.
- **Bad breath:** Bad breath is a symptom of both plaque and calculus build up and gingivitis.

A variety of methods can be used for teeth cleaning. A combination of these may be used but the most effective for maintaining good dental health is regular teeth brushing. Once dental disease has been allowed to progress it can be difficult and costly to treat. Maintaining good dental health through regular teeth brushing, together with other methods will help to ensure that teeth and gums remain healthy. If you have any concerns about dental health or dental hygiene you should consult your vet.

# GUIDE TO GREYHOUND DENTAL SCORE

## GRADE 0



A healthy mouth. Gums (gingiva) are pink and firmly attached to bone. No bad breath evident.



Normal bone surrounding roots of the tooth.

*These are the healthy teeth of a young dog.  
Aspire to keep all greyhound teeth in this condition  
Good dental hygiene routines started young should make it possible*

## GRADE 1



Gums remain healthy, tartar (calculus) accumulation is visible on teeth.



X-rays show no change.



Mild plaque and tartar accumulation on tooth above the gum line.

**Already developing early signs of dental disease.**

*This should be a totally reversible condition by effective cleaning/scaling and/or providing hard chews/bones on a regular basis.*

## GRADE 2



Moderate gum inflammation with bleeding. Some gum recession. The build-up of bacteria causes bad breath.



Bone loss is evident.

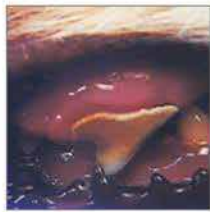


Plaque and tartar extend below gum line onto the root of the tooth. Start of bone loss around root.

**Getting out of control**

*If treatments and regimes as stage 1 are not effective at this stage, then professional cleaning under a general anesthetic may be needed to prevent further progression of the disease*

## GRADE 3



Severe inflammation of the gums, deep pocket formation, repulsive breath odour



10 – 30% bone loss around roots resulting in a loose tooth.

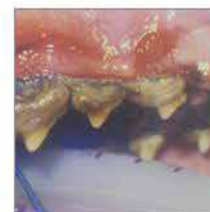


Pockets have deepened with more severe bone loss.

**Veterinary treatment is required to relieve the discomfort of this painful condition.**

*Loss of form may occur but left untreated, progression to Grade 4 will occur and serious complications may occur as a result of the bacterial infection such as liver, kidney or heart disease or even a fractured jaw*

## GRADE 4



Severe damage to the gums, pocket formation, teeth loose. Overwhelming breath odour due to the bacterial infection.



Over 30% bone loss around the root of the tooth.



Extensive inflammation, severe loss of bone and gingiva around tooth.

**Advanced tooth decay.**

***This greyhound will not be vaccinated and/or be removed from the race strength for veterinary treatment before resuming racing.***

Figure 6.1: GBGB guide to greyhound dental score

### Brushing

Special dog toothbrushes are available but a hard-human toothbrush is just as effective. Greyhounds should be introduced to teeth brushing gradually to help ensure they are not fearful of brushing and that they are relaxed when having their teeth brushed. Excessive trauma to the gums with hard brushing must be avoided.

A video demonstrating how to introduce your dog to teeth brushing and how to brush teeth is provided on the GBGB website<sup>[35]</sup>.



Figure 6.2: Example of canine toothpaste and a toothbrush. Finger-brushes, also shown in this picture, maybe better accepted by some dogs.

### Chews:

Bones, raw hide and synthetic chews utilise the natural desire for dogs to chew and gnaw and therefore also represent a form of enrichment. Bones or chews should not be given to greyhounds in pairs or when kennelled together as fights may result. Care should be taken to select bones and chews which are safe for greyhounds, avoiding objects which might splinter or cause obstructions if swallowed whole. Uncooked bones can pose a risk for bacterial infections in greyhounds so large, cooked bones are preferable.

### Diet

Some commercial biscuits may provide some cleaning of the teeth when fed dry. However, as dry foods are often soaked before feeding to greyhounds, the benefits of this are likely to be minimal. Whole raw carrots may also help to keep teeth clean and can be included in the usual feed if dogs will chew them.



*Figure 6.3: A greyhound chewing a bone.*

#### **Full Dental Clean By a Veterinary Surgeon**

None of the home cleaning methods will deal with calculus under the gum margins and this should not be attempted. full cleaning, treatment of broken teeth or treatment of more advanced periodontal disease requires veterinary treatment under general anaesthesia.

## Appendix 7:

### Common Conditions of the Skin, Coat, Eyes, Ears and Feet of the Greyhounds

This document outlines some of the more common conditions you might encounter in greyhounds involving the skin, coat, eyes, ears and feet. The information given here can help you to identify some common conditions. However, this is not an exhaustive list and veterinary attention is needed to provide confirmation of a diagnosis and to provide appropriate advice and treatment. If you have any concerns about your greyhounds' health please contact your veterinary surgeon.

#### Skin and Coat

The following are some conditions related to the skin which you might encounter when examining your greyhound.

##### Skin and Coat Condition

The condition of the coat and underlying skin can provide a lot of information about the overall health of a dog. The coat of an adult greyhound should lie flat, have a shine to it, be free from dirt, parasites and staining and should feel smooth to the touch. Coats which are thick and dull often indicate underlying sub-optimal health (including, amongst others: exposure to cold and/or unhygienic living conditions, poor quality diet, and parasite infestation). While thin hair over the thighs and belly area can be relatively normal in racing greyhounds, provided the underlying skin is in good condition, a patchy coat or hair loss in other areas, or hair loss accompanied by abnormal skin (i.e. scabs, dandruff, reddening of the skin) indicates a problem and veterinary advice should be sought.

##### Parasites

Evidence of external parasites may be seen when examining the skin of greyhounds. This can include seeing the actual parasite and/or eggs or faeces of the parasite, or it may be that secondary changes to the skin are apparent due to the parasite infestation. Examples include: broken hair and red, inflamed skin which can occur when a dog licks or scratches due to parasite infestation, loss of hair around the ears and muzzle may indicate mite infestation, or thickened skin with hair loss can also indicate other mite infestation. Any such signs should indicate that the dog requires veterinary attention. Note that some mite infestations can be difficult to control and proper diagnosis and follow-up treatment will be needed with your vet. For further information on parasites see Appendix 5.

##### Hair loss

Hair loss around the thigh area and on the belly of greyhounds is relatively common and, provided the underlying skin is healthy and not inflamed, is rarely a cause for concern. However, more widespread hair loss or hair loss accompanying skin changes (reddened skin, pimples, itching, etc.) can indicate a health problem and should be investigated by a veterinary surgeon.

##### Inflamed skin

If the skin of a greyhound is red or has pimples or circular areas of dry skin, this may indicate a skin infection. This may occur secondary to allergies or to parasite infestations. Skin infections may also occur when dogs are kept in unhygienic conditions such as wet or dirty kennels. You may also see hair loss or shorter hair with sharp ends where licking or scratching has caused the hair shafts to break. This should be investigated.

##### Skin lumps

There are a huge variety of causes for skin lumps which can range from benign, self-limiting causes, infections, to more aggressive tumours. Small lumps may occur following an injury (i.e. scabs from a bite wound) or following removal of a tick. Some of the more common skin-lumps seen in greyhounds of racing age are outlined below, but it is always important to have these conditions investigated by a veterinary

surgeon as it is rarely possible to diagnose the cause of a skin lump, with certainty, without performing some diagnostic testing.

- **Cutaneous Histiocytoma**

These are benign skin masses which occur quite commonly in greyhounds. They tend to affect younger dogs and appear as a well demarcated lump on the skin, often with a raw or bleeding surface. Most of these will grow initially and then will resolve by themselves within several weeks. However, you should consult your veterinary surgeon in order to confirm the cause of the lump as other, malignant skin tumours can look very similar.



Figure 7.1: Example of a Cutaneous Histiocytoma. (Image source: <http://cal.vet.upenn.edu>)

- **Mast Cell Tumour**

Mast cell tumours are malignant tumours of the skin which can affect dogs. They can range from low grade, less aggressive tumours to highly aggressive tumours which can spread throughout the body. These lumps are generally within the skin and will be seen as a raised lump, often without hair and often (but not always) with a reddened surface. These tumours may wax and wane (get bigger and smaller) over time. These tumours can vary in their appearance and, therefore, may resemble other causes of skin lumps. However, unlike histiocytomas, these will not regress on their own but require testing to diagnose the tumour and, if confirmed, further veterinary treatment will be required. If the tumour is removed it can be sent for laboratory analysis to determine the grade of tumour and assess the likely risk of spread or recurrence. Given the similarity of this tumour with other benign lesions, it is important that skin lumps are tested to determine the cause.



Figure 7.2: An example of a Mast Cell Tumour on a dog. These can vary in size and can occur anywhere on the skin. (Image source: [https://en.wikipedia.org/wiki/File:Mast\\_cell\\_tumor\\_side.JPG](https://en.wikipedia.org/wiki/File:Mast_cell_tumor_side.JPG))

- **Papilloma**

Papillomas (or warts) often occur on the feet, either next to the pads or in the webbing. They are caused by a virus and will generally resolve within a few weeks, once the immune response becomes established. These can be very painful and may bleed if damaged during walking or running and contact with the ground. It is not usually necessary to provide any treatment for these but they should be kept clean and monitored in case of secondary bacterial infections. As this is a virus, it may be transmitted to other dogs so good kennel hygiene is needed to minimise the risk of transmission. If you suspect papilloma, discuss this with your veterinary surgeon.



Figure 7.3: Example of papilloma (warts) on a dog's foot. (Image source: <http://www.askavetquestion.com>)

#### Callus

Callus can occur in response to friction or pressure over bony pressure points. The elbow, hock and sternum (chest) are the most common areas where this is seen. Provided a callus is not painful and there is no broken skin or swelling (possibly indicating infection), it will not usually require veterinary treatment. However, these will often occur when dogs are lying on hard surfaces. Therefore callous can be an indication of inadequate bedding or failure of a greyhound to lie on bedding provided. Management changes such as increasing the depth of bedding, adding a soft under-layer of bedding if shredded paper/cloth is used or changing to a different bedding type in order to reduce the pressure on bony points of the skin. If a dog is provided with adequate bedding but appears to 'choose' to lie on the hard surface in the kennel, investigate possible reasons for this in order to try to rectify it. Kennel temperature (hot kennels), conflict with kennel mates or difficulty or discomfort when climbing into raised beds, are some of the reasons a greyhound may not use the bedding area. Changing kennel mates or even kennel positions or provide a second bed in the kennel are some of the ways this might be managed.

Using moisturiser such as petroleum jelly (Vaseline) over the callus can help prevent it from becoming dry and cracked.



Figure 7.4: Callus over the elbow of a dog. (Image source: <https://veteriankey.com/keratinization-and-seborrheic-disorders/>)



Figure 7.5: Callus on the sternum. Note loss of hair/minimal hair and black-head type spots. (Image source: <https://veteriankey.com/keratinization-and-seborrheic-disorders/>)

### Hygromas

Hygromas are fluid filled swellings which can appear in areas where excessive pressure occurs, often in the same places where callus is commonly seen (elbow and hock being the most likely). Veterinary advice should be sought when dealing with a hygroma. Home-draining of these must be avoided as this is likely to introduce infection into the fluid sac which can result in a far more complicated problem than a simple swelling. Providing soft bedding (as described for management of callus) and cold compresses can help to manage these. Providing that no infection is introduced and pressure/friction in the area is reduced, these should resolve over time. However, some dogs may be left with some degree of swelling. Veterinary advice on whether the dog is fit to compete in races should be sought.

If callus or hygroma become infected or progress to ulcers (similar to bed-sores in humans) they will cause discomfort and may create a long term and complicated issue as movement and limited skin over bony points can cause delayed healing and wounds can be difficult to manage in these areas. Preventative treatment with good bedding and early action can help to minimise complications.



Figure 7.6: Hygroma. (Image source: [www.upload.wikimedia.org/wikipedia/commons/0/09/DogHygroma.JPG](http://www.upload.wikimedia.org/wikipedia/commons/0/09/DogHygroma.JPG))

Other causes of joint swelling should also be considered. Uncomplicated hygroma will generally not cause lameness. Swelling of joints together with lameness or reluctance to walk may indicate a more serious cause and the dog must be assessed by your vet.

### Pressure Sores

Pressure sores can occur over bony points of the body and often occur in dogs which are underweight, where bones become more prominent, where inadequate bedding is provided and/or where dogs spend prolonged periods of time restricted to kennels. Pressure sores are an indicator of poor husbandry and require treatment for the sore itself as well as urgent changes to husbandry.

It is important to follow veterinary advice carefully when treating pressure sores as complications associated with poor healing of pressure sores can cause prolonged discomfort and extended healing time in affected dogs. Pressure sores over joints can be particularly problematic.

Kennel management and care is important and, where pressure sores occur, you should ensure that the following areas are addressed:

- Provision of soft, comfortable bedding.
- Provision of more beds in the kennel or a change of kennel-mate if dog does not lie on the bed provided.
- Ensuring sufficient time outside of the kennel to avoid prolonged periods lying in the same position, i.e. allowing more time in paddocks, grooming, exercise, etc.
- Investigation of reason for low body condition (see Appendices 1 and 2) and address the problem in order to improve body condition.
- Ensure good quality diet and good parasite control to improve overall health.

Sudden appearance of skin sores with no known cause should be investigated by a veterinary surgeon immediately as these can indicate other underlying conditions, including a rare but serious illness called Cutaneous and Renal Glomerular Vasculopathy (or 'Alabama Rot').<sup>[16][36]</sup>

### Eyes

Careful monitoring of your greyhounds' eyes is important. The eyes should be bright, shiny and clear. Comparing left and right eyes can help to determine whether there is a problem with one eye, while noting that some health problems will affect both eyes. If you have any concern about your greyhounds' eyes you should seek veterinary advice immediately as some eye problems can progress rapidly and/or may be a sign of serious underlying disease. Some more commonly encountered problems involving the eyes are outlined below.

Normal eyes should:

- Appear of equal size and shape (when comparing left and right). A painful eye may be drawn back in the socket making it appear smaller whereas an increase in pressure within the eye can cause the eyeball to appear larger).
- The surface should be shiny and clear.
- The white part of the eye should be clear and white. While small blood vessels will be seen crossing this, excessive reddening can indicate a problem as can discolouration such as yellow tinge to the whites of the eyes.
- The pupils should be of equal size in both eyes and should respond to changes in light (pupils should appear smaller in bright light and larger in dull light).

### A 'Red Eye'

There are many possible causes of a 'red eye', some of which can be serious conditions of the eye itself or an indicator of a more general health problem. Given the seriousness of many causes of a 'red eye,' veterinary advice should be sought in order to get an accurate diagnosis and appropriate treatment. Some eye conditions can progress rapidly and, if left untreated, may result in long term problems.

### Conjunctivitis

One of the most common causes of a red eye is conjunctivitis. This may be seen as reddening in the white part of the eye and/or with a mild green/yellow discharge from the corner of the eye. There may also be swelling of the conjunctiva around the eye. Mild cases of conjunctivitis may resolve on their own, where others will require a course of treatment. However, veterinary advice must be sought.

### *Uveitis*

This is usually seen as a very red and painful eye with a small pupil. This is a very serious condition and requires emergency veterinary treatment.



Figure 7.7: Example of uveitis in the dog. (Image source: [www.petforums.co.uk](http://www.petforums.co.uk))

### *Foreign Body or Corneal Ulcer.*

A dog may have a red and painful eye if a foreign object has entered the eye and either remained there or caused damage leaving scratches or ulcers on the surface of the eye. Again, if a dog has a red and painful eye, it requires immediate veterinary attention.

### *Pannus (Superficial Keratitis)*

This is an inflammatory condition of the cornea (the surface of the eye) which occurs in some greyhounds. It is often first noticed as redness in the outside corner of the eye which progressively moves towards the centre. It can occur in one or both eyes. While reducing dust, drafts and any irritation to the eye can be helpful, veterinary treatment is required to control this condition. If you notice these signs you should contact your veterinary surgeon.



Figure 7.8: Pannus in a dog. Note the blood vessels growing across the eye from the outside corner towards the centre and the cloudy appearance on the surface of the eye. (Image source: <http://davidwilliams.org.uk>)

### *Glaucoma*

Glaucoma occurs when there is an increase in pressure within the eyeball. This is a very painful condition and requires immediate veterinary attention. The eye will usually be red, cloudy and have a dilated pupil. This requires emergency treatment.



Figure 7.9: Example of glaucoma in the dog. (Image source: [www.petforums.co.uk](http://www.petforums.co.uk))

#### Sub-Conjunctival Haemorrhage

This is where there is bleeding within the eye. It can occur due to trauma or due to bleeding/clotting problems. An example of where this might be seen is when a dog has reduced blood clotting due to lungworm infection. Again, this could signify serious disease and requires immediate veterinary attention.

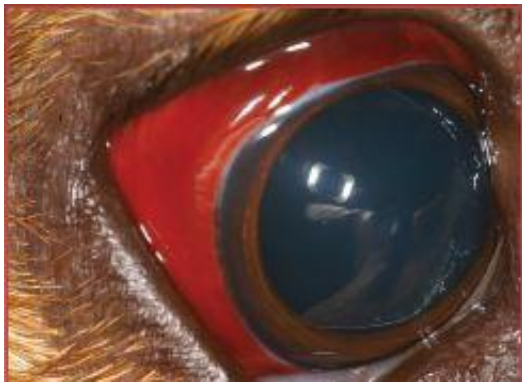


Figure 7.10: Example of sub-conjunctival haemorrhage. (Image source: [www.petforums.co.uk](http://www.petforums.co.uk))

This does not include all eye conditions but some of those which may be seen more commonly in greyhounds or whose seriousness warrants them to be included here. If you have any concerns about your greyhounds' eyes you should seek veterinary attention immediately.

#### Feet: Skin, Nails and Pads

The skin, nails and pads of the feet are areas where injuries, or other conditions, can occur quite commonly in greyhounds. Early recognition and treatment of many of these conditions will help to improve welfare and allow earlier resolution of any problems.

##### Corns

Corns are a common and frustrating problem in greyhounds and require treatment as they can cause significant and long-term discomfort. While trimming back the hard pad around the corn or 'shelling out' corns can provide short-term improvement, in many cases, the corns will come back. Veterinary advice should be sought on more effective, long term treatment options for corns. It is not acceptable to leave corns untreated given the discomfort caused by this condition.

##### Broken Nails or Nail-Bed Infections

Nails may be broken during exercise. This can be minimised by keeping nails suitably trimmed to reduce the risk of them becoming caught. Where nails are broken, any loose parts of the nail should be clipped (where this can be done without causing pain). If a nail is split but is still firmly attached, the area should be kept clean and cleaned after going out on exercise. If the dog shows signs of lameness or if the toe becomes swollen or there is pain or discharge then you should seek veterinary attention.

If the skin that attaches to the base of the nail (the nail bed) becomes red, painful and/or swollen this may indicate an infection in the nail bed and will require veterinary treatment. Some auto-immune diseases or cancers may resemble nail-bed infections so further investigation is warranted if these fail to resolve with treatment or where your vet is concerned that other conditions might be occurring.

#### Papillomas (Warts)

These often occur on the feet and are covered under the section on skin. Warts may be first noticed when they are damaged and bleed following exercise.

#### Split Webbing

This can occur during exercise and is quite common in greyhounds. A split web should be cleaned and covered with a light dressing and veterinary advice sought regarding the need for treatment. These must be allowed to heal before a dog is raced again.

#### Sand-Burn

These are wounds which occur along the underside of the toes on the hind feet. These are over the toes themselves rather than in the web and can range from shallow skin wounds (a red line along the underside of the toe) to deep wounds extending into the underlying muscle layer. These should be thoroughly cleaned with water to remove any debris and advice sought from the vet. Sand-burns must be allowed to fully heal before the dog is raced or trialled again otherwise they will re-occur. This will often mean that 3 to 4 weeks is needed for proper healing of deep sand-burns to occur. Ensuring feet are cleaned and dried after exercise and application of a barrier cream (such as a nappy rash cream) may have some benefit in reducing the risk of sand-burn recurrence.

#### Foreign Objects

Lameness or discomfort in certain areas of the foot can be caused by foreign objects entering one of the pads. Sometimes the object might be visible protruding from the pad and may be easily removed. However, very small objects or those which are embedded deep in a pad can be more difficult to see. A dog with a foreign object in the pad will often be lame (possibly more lame on hard surfaces) and will resent pressure over the affected pad. You should take the greyhound to your veterinary surgeon for investigation of suspected foreign object in the pad.

#### Ears

Signs of ear problems can include itching ears, discharge or odour from the ear, ears that are painful to touch (may be noticed when putting on a muzzle or stroking the ears), redness inside the ear, holding the head on one-side and/or shaking the head.

No medicine or liquid should be put into the ear without first seeking veterinary advice. Ear problems require thorough examination by a veterinary surgeon so that the whole of the ear canal can be examined and the ear-drum checked.

## Appendix 8:

### Injury Detection in the Greyhound

Injury detection is an important part of caring for greyhounds to ensure that injuries are picked up quickly and treated appropriately. Failure to identify and treat an injury significantly compromises the welfare of the greyhound and may prolong pain or cause worsening of an injury if the dog is allowed to exercise when injured. Under The Animal Welfare Act (2006)<sup>[1]</sup>, it is an offence not to take reasonable steps to protect animals from pain, suffering, injury and disease.

If a greyhound is showing signs of injury, then timely veterinary advice should be sought for further assessment and treatment of the injury.

If a greyhound is injured at the track, the track veterinarian will issue instructions on follow-up care and treatment. This advice must be followed and further veterinary advice sought within the time frame recommended by the track vet.

#### **Providing for the Psychological Needs of an Injured Greyhound**

Note that an injured greyhound may require a period of rest. It is important that the psychological needs of greyhounds are met when they are not able to perform their normal exercise and therefore may suffer from boredom or frustration. Providing additional stimulation such as more human contact in the kennel, lead walking in areas where greyhounds can sniff and explore, providing more time for grooming and stroking, etc. can help to provide enrichment to injured dogs. See section 3.5 of The Code for more information.



*Figure 8.1: It is important to provide for the psychological needs of injured greyhounds.*

It is essential that any pain is treated with appropriate and licensed pain relief medication which must be prescribed by a vet for a specific condition in a particular greyhound. A greyhound must never be left in pain in an attempt to enforce rest. Rather, injured dogs should be adequately medicated to relieve

pain and, where the vet recommends that the dog is rested, appropriate management should be used to ensure rest.

All treatments provided by the veterinary surgeon should be given in-full and all instructions followed. Where the trainer or kennelhand have any concerns about the greyhound, or the medication prescribed, they should consult their veterinary surgeon for advice. Any dressings applied must be kept clean and dry and be changed according to instructions provided by the veterinary surgeon. Failure to maintain dressings properly or failing to have dressings changed at appropriate times, as advised by the vet, can lead to problems, including: damage to the skin under the dressing, insufficient support of injuries, pressure sores, and/or swelling of the limb. All of these will significantly impact on the welfare of the greyhound and prolong recovery time.

#### **GBGB Injury Recovery Scheme**

This is a nationwide initiative which provides financial assistance to an owner whose greyhound has suffered a career ending injury at a GBGB licensed racecourse. Funding is provided towards corrective veterinary treatment for orthopaedic injuries so that wherever possible greyhounds can go on to enjoy a full and active life in retirement. Further information can be found by contacting GBGB or visiting the website at:

[www.gbgb.org.uk/welfare-care/investing-in-welfare/](http://www.gbgb.org.uk/welfare-care/investing-in-welfare/)

### **Examination of the Greyhound**

Greyhounds should be monitored at all times for possible injury with special attention paid to the post-race or trial period where greyhounds may be more likely to sustain injuries. Injuries may be seen as overt lameness but could also show as a change in performance or racing line. More subtle behavioural signs should be monitored which may indicate pain associated with injury or illness (see table 8.1). Any of these changes should be carefully investigated and veterinary advice sought.

This document provides some guidelines for injury detection to help trainers and kennelhands to identify injuries in their greyhounds. However, if injury is suspected, veterinary advice must be sought.

Everyone will have a slightly different way of examining a greyhound for injury. This document provides a guide based on a three-step process of examination. The steps described are as follows:

- Step 1: A visual examination of the greyhound moving around in its normal environment (paddock/kennel).
- Step 2: A basic examination to assess the overall health of the greyhound.
- Step 3: A thorough, hands-on examination to identify injuries in the greyhound.

The following information provides a brief overview of the three examination types with some tips for carrying out these checks. For further information, see the videos on the GBGB website<sup>[37][38]</sup> or ask your veterinary surgeon to demonstrate examination techniques.

#### **Step 1: Visual Examination of the Greyhound Moving Around in its Normal Environment**

Where possible, greyhounds should be assessed in their normal environment as this is often where more subtle signs of injury or illness may be observed.

Stand back and watch the dog moving about in its normal environment, look at:

- General demeanour/behaviour
- Is the dog holding weight evenly on all four limbs?
- Is the dog moving about in the paddock or is he reluctant to move?
- Is there obvious swelling, bruising anywhere?
- How is the dog standing – normally, hunched, etc.
- Does the dog appear distressed/panting/shivering, etc.?
- Is the dog interacting normally with its kennel mate or with people?

A lot of useful information can be gained by just watching the dog moving about. It is important to do this before moving onto more detailed examination.



Figure 8.2: Observe greyhounds in their normal environment.

Signs of pain can be both subtle and complex in the dog and careful observation, as well as a knowledge of what is 'normal' for a particular dog, may be needed to identify some of the more subtle indicators of pain. Table 8.1 provides a guide to some signs of pain which may be recognised in dogs. Not all of these signs will be present in a dog experiencing pain but any behavioural changes or behaviours of concern, including those outlined in table 8.1, should be investigated further.

Table 8.1: Signs of pain (adapted from Recognition and Alleviation of Pain in Laboratory Animals<sup>[39]</sup> and 'How do I know my dog is in pain?' VetsNow<sup>[40]</sup>). Note that while these can be signs of pain, an animal in pain will often not show all of these signs and may only show very subtle changes in behaviour due to pain.

Sign	Explanation
<b>Guarding</b>	The dog may alter its posture to avoid moving or causing contact to a body part, or to avoid the handling of that body area.
<b>Altered mobility</b>	Signs of lameness or stiffness are quite obvious signs of pain but others such as reluctance to do activities that a dog could previously do such as jumping into a vehicle, climbing onto a bed, etc. or less inclined to exercise may be more subtle indicators of pain.
<b>Abnormal appearance</b>	Obvious lack of grooming, changed posture, and a changed profile of the body (i.e. hunched or 'tucked up' appearance) are all observable signs. There may also be swelling of particular parts of the body which could be injured. Dogs with abdominal pain may take up the 'prayer position' where they lie down on the front legs and stand on the hind legs (as though bowing).
<b>Altered behaviour</b>	Behaviour may be depressed; animals may remain immobile, or be reluctant to stand or to move even when disturbed. They may also exhibit restlessness (e.g. Lying down and getting up, shifting weight, circling, or pacing, failure to get comfortable, etc.). Animals in pain may also show altered social interactions with others in their group or may show signs of aggression. They might just fail to come and greet you at the kennel door or be less inclined to leave the kennel.

<b>Vocalization</b>	An animal may vocalize when approached or handled or when a specific body area is touched or palpated. It may vocalize when moving to avoid being handled. This may be seen as yelping, growling, snarling or even howling.
<b>Excessive grooming</b>	Dogs that are in pain may lick, bite or chew a painful area. They may excessively lick the front paws. Where licking a cut or external injury may be obvious, licking and chewing can also be a sign of internal pain.
<b>Panting or altered breathing</b>	Heavy panting, despite not having been exercised and not in a warm environment may indicate that a dog is in pain. Rapid, shallow breathing can also be seen with some types of pain.
<b>Changes in eating, drinking and sleeping habits</b>	Animals in pain may appear to sleep more than normal, or they may appear to be restless and therefore sleep less. They may have reduced appetites and water intake.
<b>Trembling or shaking</b>	While there are various reasons that a dog may show trembling and shaking. This can be an indication of pain and should be investigated as such, particularly where there is no other obvious cause for it.

#### Step 2: Basic examination to assess overall health of the greyhound

For this examination, key points on the dog will be examined as indicators of its overall health. As part of this examination, the dog will also be walked and trotted to assess movement and help detect any lameness.

**NOTE:** If there is obvious lameness at the walk, the dog should not be made to trot but veterinary advice should be sought to further assess and treat the injury.

The following areas should be examined. If you have concerns or you are unsure about ANYTHING you observe then veterinary advice must be sought to ensure dogs receive appropriate treatment.

#### Teeth and gums:

- Assess the colour of the gums, they should be pale pink. If gums look too pale or are discoloured in any way (yellow tinge, deep red, white, blue/purple tinge, this could indicate serious health problems and veterinary attention should be sought immediately.
- Assess dental health. Is there tartar on the teeth? are there signs of gum disease (red gums, recession of gums to show tooth roots, broken teeth, and/or loose teeth?)
- Are the gums moist? Sticky or dry gums can indicate dehydration whereas very wet gums and drooling may indicate sickness/nausea.



Figure 8.3: Healthy colour gums and good dental health. (Image source: [www.urbanpawsuk.com](http://www.urbanpawsuk.com))

### Eyes

- Do the eyes look bright and normal in colour (check for any change in colour around the whites of the eye (redness or yellowing can indicate health problems), is there cloudiness or redness within the eye or on the surface of the eye?)
- Are the eyes both fully open, no squinting or discharge from the eyes?



Figure 8.4: An example of a normal eye. (Image source: [www.vitalpethealth.co.uk](http://www.vitalpethealth.co.uk))

### Coat and Skin

- Assess general coat condition. It should have a shine to it and lie flat and smooth.
- Part the hair and look for parasites (especially ticks and fleas).
- Are there cuts, lumps or bumps on the skin (including the feet)?

### Chest/breathing

- Is the breathing calm and normal (not noisy, rapid or laboured?)
- Is the dog coughing?
- Normal respiratory rate for dogs is 10-34 breaths per minute when not panting (increased rates can indicate problems, including: heart or respiratory problems, heat-stroke, pain).

### Body Condition

- Is the dog in good, healthy body condition appropriate for its level of fitness?
- See body condition scoring of the greyhound (Appendix 1)

### Hydration

- The gums should be slippery and moist.
- Lift the skin on the back over the lumbar area (figure 8.5). When the skin is released it should return to its normal position rapidly. If the skin remains pinched once released, this indicates dehydration.
- Note that sudden weight loss may also indicate dehydration.

### Temperature

- Use a rectal thermometer to take the temperature of the greyhound if in doubt. The normal temperature of a dog should be 38.3 – 39.2°C

### Reproductive system

- Check to see whether bitches are in season and check for abnormal vaginal discharge.
- Check male dogs for lumps or abnormalities in the testicles and scrotum.



Figure 8.5: Tenting the skin in the lumbar area and checking how quickly it returns to normal is a useful way to assess hydration. (Image source: Polly Smith).

### Step 3: A thorough, hands-on examination to identify injuries in the greyhound

This examination will take some time as it is important to thoroughly check for injuries. For more detailed information on this examination, see the video provided on the GBGB website<sup>[38]</sup>. You should also ask your veterinary surgeon to demonstrate examination techniques if you are unsure. The following provides a brief guide to carrying out the examination.

While everyone will have a slightly different approach, remembering some key points will help with your examination:

1. Walk and trot the dog away from you and towards you in order to look at the movement of the dog (this should be avoided if there is obvious lameness and where moving the dog is likely to cause discomfort).

Examine the movement (gait). Is the dog moving freely without 'dipping' or favouring any limbs? Note that if a dog has injury and/or discomfort in more than one leg it may show a reluctance to move rather than obvious lameness.

2. Follow a set routine when examining the greyhound as this helps to ensure that nothing is missed. Generally, start at the head and move back towards the tail, being careful to include all the areas where injuries are commonly found, but also keeping an open mind for more unusual sites of injury.
3. Always compare right and left sides. This can help to identify abnormal swelling, shape or position of any parts of the body.

## Appendix 9:

### Medical Alert for Acute Canine Haemorrhagic Pneumonia

# **Greyhound Medical Alert: Acute Canine Haemorrhagic Pneumonia**

**This is a RAPIDLY FATAL disease  
Requires Emergency Veterinary Treatment**

## **History/Signalment:**

- Usually young, fit racing greyhounds
- Often (but not always) within 2-3 days of racing or transportation

## **Clinical signs**

- Non-specific
- Lethargy
- Reduced appetite or inappetence
- High temperature (above 39.5°C / 103.1°F)
- Increased respiratory rate/effort
- Cough may be absent

## **Treatment**

- IV fluid therapy – isotonic fluids (Hartmann's solution or 0.9% NaCl) at **shock rates** initially.
- **IV antibiotic therapy** with potentiated amoxicillin (i.e. "Augmentin") or cephalosporin (i.e. "Zinacef")
- Follow with oral broad spectrum antibiotics (such as amoxicillin-clavulanic acid)



## Appendix 10:

### Financial Assistance: Details of the Trainer's Assistance Fund

Financial assistance for welfare related or capital improvement projects may be available through the Trainer's Assistance Fund. Further information can be access by contacting the GBGB (contact details below). These funds can help trainers to improve kennel facilities in order to provide improved welfare for greyhounds in residential kennels. Further information on application and conditions of the grant are provided below.

**For applications contact the Trainers Assistance Fund:**

*Tel: 0207 822 0900 (Option 5)*

*Email: [grants@gbgb.org.uk](mailto:grants@gbgb.org.uk)*

**Further Information on the Trainers Assistance Fund:**

- Available to Professional Trainers only who have held this type of licence for more than 12 months.
- There is no minimum amount which can be applied for with a maximum of £8,000 grant per application.
- Grants are available for new builds.
- Each application is considered on its merits and the decision of the Committee is final.
- Retrospective funding is not available for completed projects and any such application received is at the discretion of the funding committee.
- Two detailed quotes or estimates must be provided with each application and the GBGB will check the authenticity of the quotations or estimates.
- A copy of a valid lease or rental agreement must be provided with the application for kennels that are not owned by the applicant.
- The area stipendiary steward will submit a report on the proposed work and whether the application adds value to the greyhound's welfare. In addition, the Committee will instruct the stipendiary steward to make a further visit once the proposed works are completed.



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