

Module 1: Introduction – The Importance of Veterinary Services, Different Types of Services, and Necessary Equipment for Pet First Aid Kits

Objectives

- The benefits that owning a pet brings to our lives, and why they deserve the best care
- The history and evolution of veterinary care, the role of the vet, and the services they provide
- Registering with a vet, and what owners should do when taking their pet to a veterinary clinic
- The types of pet insurance available
- The importance of first aid for pets, and what a first aid kit should contain
- The appropriate use of hot and cold therapies

Welcome to your Pet First Aid Certificate course.

Before you begin the course please read these important notes.

Modules

The course is broken down into 7 modules. Each information-packed module lasts about 30 minutes, but you are free to spend as long as you like on each one. Once you have finished the module, click the “continue to next module” button at the

bottom of the page to move to the next lesson.

Highlighted Text

In the modules you may notice some text has been highlighted, or marked differently to the majority of the rest of the text. For an explanation on each one, see the key below:

Information worth remembering

Third-party websites or links that contain information that can further your learning

Vitally important to remember. Ignoring this could cause problems.

Useful trivia

Facts/data related to the topic

Quotes and examples

Sums / Calculations or other formula

Questions you should ask yourself

Revisiting Modules/Access to the Course

Once course is complete, you can continue to access the courses at any time. To do this, simply log back in to your account and click on the “revisit modules” option from your member’s sidebar. You will then be able to select any module that you have already completed.

End of Course Test

At the end of the course, there is a 30 question test. Each question is multiple choice with one correct answer. In order to pass the test, you must answer 70% (21/30) of the questions correctly.

Don’t panic if you don’t pass first time. You can take the test as many times as you need. If you do not pass on the first occasion we recommend that you review your notes and go over the modules that you found to be a bit more challenging.

Completion of the Course

Once you have successfully completed the course exam, you will

obtain your certification. You can download and print your certificate by logging into your account or following this link:

<http://newskillsacademy.co.uk/my-account/download-your-certificate/>

You can order a hard copy of your certificate [here:](http://newskillsacademy.co.uk/certificate-location/)
<http://newskillsacademy.co.uk/certificate-location/>

What you can do once you have completed the course

Once you have completed the course you will have a great understanding of what is needed if the worst should happen to your pet and there is no qualified veterinary professional in the immediate vicinity. You should always consult a qualified veterinary doctor about any ailments, injuries or concerns that you have regarding your pet.

Support

If you need any assistance we are here to help you. Please note, support hours are 9:00 – 5:30 P.M. GMT Monday – Friday (please note that responses may be delayed after regular business hours).

Let's Get Going

We hope you enjoy your course and wish you the best of luck. You can now begin your course. The first module starts immediately below.

1.1 Introduction

Why pets are special to us and why they deserve the best care.



Owning a pet is a rich, rewarding experience. In a world that can often be unkind, pets provide unconditional love, affection, friendship, and companionship. Studies have shown that pet owners tend to be happier and healthier than non-owners, demonstrating the positive impact that they have on our lives.

Pets are often considered to be as much a part of the family as the humans around them. Many people believe that family pets help children to learn responsibility, consideration and empathy at an early age. For some people, particularly the elderly, pets provide an essential source of companionship.

Pets also help us make connections. Dog owners will start chatting in the park about their canine charges; keepers of all kinds of pets will make an instant connection at the vet clinic or pet events. Pet ownership breaks down barriers and opens up new opportunities.

Therapeutically, too, animals have proven to be invaluable. In both care and medical settings, allowing residents and patients to pet and interact with animals has been shown to reduce stress and provide a psychological boost, improving outcomes.

However, with the pleasure of ownership comes the responsibility of caring for them properly. Their happiness, health and well-being lies completely in the hands of their humans. They are unable to speak for themselves, so rely on their owners to protect and care for them. Each type of animal has its own, individual needs, and owners need to research and understand these before deciding to take on the responsibility. Some people compare pet owners to parents who have to advocate on their children's behalf when accessing medical care.

This training module explains the importance of good veterinary care, the different services available, and what a first aid kit for your pet should include.

1.2 The importance, history and evolution of veterinary services in pet care

Most simply put, a veterinarian is someone qualified and certified to provide medical care for any type of animal from domestic pets, to farm animals, to wild beasts.



They provide expert and compassionate care to ensure their wellbeing.

Veterinarians – more commonly shortened to vets – spend many years in training. From their teenage years, they must choose the subjects they need to study to be able to enter a relevant university course. At university, they study for as long as a doctor does, and work just as hard. There is an argument to be made that while doctors have to learn about just one subject – humans – vets must learn about hundreds. Once qualified, vets practice both routine and emergency treatment, providing each as necessary. The provision of reliable veterinary care is a key component of keeping our pets happy and healthy.

Animals have been an important source of food and other resources for millennia, so it is not surprising that veterinary care has a long and illustrious history.

The first mention of something approaching veterinary treatment occurs in records from Mesopotamia dating back to around 3,000 BC, although it is almost certain that some kind of animal care was taking place prior to that.

Despite its long history, it was not until 1761 that the first official vet college was established in Lyons, France, by Claude Bourgelat. In Britain, the veterinary profession began

to develop in a more structured way in 1785. The Odiham Agricultural Society had been founded in 1783 for the gentry and educated farmers who were interested in the development of farming practices. In 1785, the welfare of farm animals was added to their interests. In 1791, the London Veterinary College was established.

Initially, modern veterinary care was primarily focused on the care of horses, particularly those used by the military. Over time, the welfare of livestock became more important, then that of domestic pets, and finally exotic animals.

As with humans, prior to World War 1, anaesthetics were unpredictable, antibiotics were unknown, and sterilisation of instruments and operating theatres was unreliable. Surgical knowledge and skills were limited. In fact, many of the veterinary techniques that are considered routine today had not even been invented.

1.3 The role of the veterinarian

Pets are living creatures and are vulnerable to many diseases and conditions that can also be found in humans.



These conditions include arthritis, cancer, diabetes, and epilepsy. Just like humans, it is important that they receive adequate medical care to prevent suffering and enhance their quality of life.

As a doctor does with their patients, so a vet will examine an animal, diagnose its problem, then prescribe a suitable medication, specifying dosage, and the length of time that it should be administered. Emergency care includes surgical

interventions and treatment of broken bones and damaged joints. More routinely, neutering and vaccination against deadly diseases form part of a vet's daily job.

Veterinary clinics will carry a range of medicines and drugs which they can dispense, usually immediately, for owners to take home and administer, although in the UK you may also be able to buy the same medication at a pharmacy or online if you have a prescription.

When medication is prescribed, it is the responsibility of the owner to ensure that it is administered as per the given instructions. Sometimes pets may have adverse reactions, in the same way that humans can. Pet owners should monitor their pets whenever they give medication and report any issues to their vet immediately.

As with humans, some conditions, such as diabetes and epilepsy, cannot be cured, but they can be managed over the long term. Vets will undertake tests and monitor the animal's health over a period of time to ensure ongoing quality of life. Tests may include blood samples, or analysis of faeces or urine, which provide important information relating to the health and management of the condition.

While many vets tend to work in general practice, some choose to specialise in certain areas. In serious cases of illness or injury, pets may be referred to a relevant expert for more specialist treatment. In these modern times, animals may be fitted with pacemakers, artificial limbs, or receive chemotherapy or other radical treatments, in the same way that humans do.

A vet's job also includes routine, preventative care. They administer vaccinations against diseases such as distemper, which are often fatal. If owners wish to take their animals abroad, they will give the rabies vaccine. Vets also provide advice on issues such as diet and weight management, worming

and flea treatment, and how to avoid injury when playing with toys.

Overall, the main functions of a veterinary clinic can be summarised as follows:

1. Providing general advice and information
2. Vaccination
3. Prescribing suitable medication and treatment
4. Emergency surgery
5. Dressing wounds
6. Setting fractures
7. Providing palliative care and euthanasia

Some vets choose to undertake further training to focus on working with particular types of animals, such as:

1. Avians (birds)
2. Equine (horses)
3. Exotic companion animals (smaller mammals such as ferrets, mice, rats and other small pets)
4. Reptile and amphibian
5. Food animals (with perhaps further specialisation into poultry, beef cattle, dairy cattle, or pigs)
6. Zoo animals

Other vets choose to focus on particular types of illness or injury, and their treatment. These include:

1. Anaesthetics
2. Animal psychology and behavioural issues
3. Dentistry
4. Dermatology (skin complaints)
5. Cardiology (heart)
6. Neurology (nervous system)
7. Nutrition
8. Oncology (cancer)

9. Ophthalmology (eyes)
10. Orthopaedics (the skeletal system)
11. Radiology (x-rays, ultrasounds, MRI, CAT scans etc.)
12. Rehabilitation and physical therapy
13. Toxicology (the treatment of animals exposed to poisons or toxic substances)

FACT



As of 2014, it is estimated that 13 million of households (around 46%) in the UK, have pets. This includes around 65 million animals, including fish. After fish, dogs are the most commonly kept pet, with an estimated 9 million kept in the UK, followed by cats, which number around 7.9 million

Source: pfma.org.uk

1.4 How to register your pet with a vet

You should register with a vet as soon as possible after acquiring a pet.



This will make it easier to access health care and treatment for your pet when the need arises. If you decide to remain with one clinic, they will maintain records of your pet's visits, vaccinations, and medical history, and so get to know your animal.

All vets must be registered with the Royal College of Veterinary Surgeons (RCVS), and it is illegal for anyone not registered with them to provide treatment to an animal. You can confirm that a vet is legally allowed to practice by checking the RCVS website. Many people prefer to ask friends and family for recommendations before registering with a clinic, as they want to ensure that their pet will be comfortable and treated well.

The registration process is simple and straightforward. It usually requires the owner to complete a form with the name, age, species, breed, gender, etc of their pet. The clinic will also need the owner's contact details, such as name, address and telephone number.

1.5 Making vet visits less stressful for your pet

It is extremely important that owners ensure that their pets receive their vaccinations, and have regular check-ups to ensure that they are healthy.



However, the strangeness of a veterinary clinic can cause your pet to feel stressed and unhappy. The smells, sights, and nervousness of other animals, can lead to your pet exhibiting an anxiety they would not normally.

While they may not understand where they are, they are aware that it is unusual. Over time, they may come to associate the clinic with unpleasant experiences – no-one likes being vaccinated or having their temperature taken, whether human or animal – and so be reluctant to enter the premises. For cat owners it can be even more tricky. Cats are rarely taken anywhere in their travel box that they associate with pleasant times, so they may run away, hide, or even scratch and claw to avoid being put in it.

Depending on the type of pet that you have, the following tips will help to reduce your animal's stress when visiting the vet's clinic:

1. Try to exercise your pet before going, and encourage them to toilet. The exercise will use up nervous energy, and stressed animals are more likely to urinate or defecate inappropriately.
2. Stroke and pat your pet regularly, and speak to it gently and reassuringly. If the your pet is small enough, consider using a carrier to keep it away from other animals in the waiting room, who may be bad tempered or aggressive.
3. Take along a favourite toy, or something that has your scent on it, to reassure them that you are there.

4. During examination, stay close to your pet, and speak to them calmly and reassuringly. Although vets and nurses are trained to deal with frightened and nervous patients, this will help them as well as your pet..
5. If your dog refuses to enter the clinic, walk it around, past the entrance a couple of times, until it is comfortable enough to enter.

When taking your pet to the vet's, there are a number of things you should do both to assist the vet, and to ensure that your pet gets the right treatment:

1. Always ensure that your pet is kept on their lead. Even if your pet is friendly and sociable, the stress of attending the vet's may cause other animals to be unusually aggressive. Using a lead helps keep your pet safe and under control.
2. Owners should be physically present for appointments and procedures, other than operations. This will reassure your pet, and help you to understand what treatment your pet has received. If your pet appears to be seriously ill, it helps if all those who will need to make decisions about treatment going forward attend.
3. If your pet can be aggressive, make sure that your vet is aware before they examine the animal. Although vets and their assistants are trained to handle aggressive animals, knowing in advance allows them to make appropriate arrangements. If necessary, take a protective muzzle with you.
4. Pet owners should provide as much information as they can relating to the pet's appetite, thirst, energy level (weakness), and sleeping habits, as well as symptoms such as coughing, vomiting, loose bowel movements, etc. If your pet is experiencing seizures, knowing the dates and times is important. This information will assist the vet in making an accurate diagnosis and prescribing the right treatment.

5. While your regular vet clinic should have the records, it is best to inform them about any current medication or treatment your pet is receiving, including the name and dosage.
6. To assist the vet and help ensure your pet gets the right treatment, owners should be honest about the circumstances that have led to the visit. If your pet has eaten something it shouldn't, or you have accidentally injured its tail, for example, try to overcome any shame or embarrassment. The vet will understand that it was unintentional, and you are doing the right thing seeking treatment.
7. If the vet uses terminology or jargon the owner doesn't understand, they should ask for clarification, as misinterpretation can lead to the pet not receiving the right treatment at home. Owners should not be embarrassed to admit that they don't understand – they are not the expert, and it is the vet's responsibility to ensure that the owner is clear about their diagnosis and treatment plan.
8. Find out what the follow-up will be. If your pet is declared fit and well, ask if there is anything they will want to check at their next annual health check. If your pet is ill and has been prescribed treatment, a vet will often want to see them once the course of medication has been finished, so ask if they want you to make another appointment, and when.

Vet treatment can be costly. It is always wise to ask for an estimate of the cost of treatment, particularly if it is a serious problem, or will require ongoing treatment. Many owners take out insurance when they first acquire their pet to help cover vet bills. This is explained in the next section.

1.6 Pet insurance – how it works

Pet insurance is comparable to purchasing medical insurance for humans.



Responsible pet owners want to make sure that they are able to provide their pets with the best possible health care, when they need it. There is no way to predict when an animal may fall ill, injure itself, or be involved in an accident, and vets' bills can easily run into hundreds – or even thousands – of pounds. While pet insurance can seem like an additional and unnecessary expense, especially if your pet is young, it should be considered a wise investment, that will ensure that your pet receives quality treatment and care at the best veterinary clinics, without having to worry about the costs.

There are different types of pet insurance available in the UK. These include:

- Accident only – this is the cheapest option available and, as the name indicates, only covers treatment required as the result of an accident. Some may also cover emergency illnesses, but will cost more.
- Time limited – this covers costs up to a maximum amount per condition, and will pay out only for treatment received during a specified period, usually twelve months. After that, no further treatment for that condition will be covered, and the condition will be excluded from future policies. This is one of the cheaper options.
- Lifetime cover – this covers a specified amount of vets' fees, which renews each year as long as the owner renews the policy. The cost of the policy is likely to increase

each year, as your pet ages and is more likely to require treatment, and will also take into account treatment your pet has received. This is the most expensive insurance.

The cost of insurance will depend on a number of factors:

- The age of the pet, and any pre-existing conditions. The younger the pet when the policy is taken out, the lower the premiums will be, even as the pet ages.
- The type of animal, and whether your pet is a pedigree breed.
- The type and number of health problems that the specific species or breed commonly experiences.
- The maximum amount the policy will pay out.
- The excess the owner is willing to pay.
- What treatments are covered.

In the UK, a standard maximum annual coverage amount is often between £5,000 and £6,000, although it can be higher.

Comprehensive pet insurance policies in the UK can include the following:

- Kennel or cattery fees if the pet has to be hospitalised for more than four days in a row.
- Coverage for holistic, alternative treatments including physiotherapy, acupuncture, etc. if recommended by the vet.
- Coverage for behavioural problems (such as aggression or trauma) when administered by a qualified professional.
- Emergency treatment if travelling abroad with your pet.
- Third party liability, if someone is injured by your pet.
- The cost of cremation.
- The cost of replacing your pet, if it is particularly valuable.

1.7 Being prepared for pet first aid

Every pet owner should be aware of the importance of emergency first aid treatment.



Just as with humans, first aid refers to the immediate assistance rendered to an animal in the event of an accident, injury or illness, and can make a significant difference to the ultimate outcome.

A rapid response can mean the difference between temporary and permanent disability, or even life and death.

There is no predicting what emergency might arise, but, in the event that it does, owners must be able to react quickly and appropriately to assist their pet. Having the right knowledge, skills, and tools in place will both help to prevent panic and minimise harm, until the animal can receive professional veterinary treatment.

Although animals are, at first glance, very different from humans, the truth is that how first aid is applied is not very different. Having a suitable first aid kit at home is a precaution that any responsible pet owner should take.

1.8 Pet first aid kit



A pet first aid kit should include the following:

- An appropriate book on first aid. There are a number available, both in bookshops and from online shops such as Amazon. Keep one with the first aid kit.
- A list of emergency telephone numbers. As well as that of your vet, it should also have the number of your closest veterinary clinic (if it is not your regular vet), and the number of the Animal Poison Line (01202 509 000 – be aware that calls cost from £30), preferably in a waterproof cover. Before calling try to have the following information:
 1. Pet's breed, age, weight, gender
 2. What the drug or toxin was
 3. What form the exposure took, e.g. eaten, inhaled, on their skin
 4. The amount of toxin and when it happened
 5. If this is the first time it has happened, or when it happened before
- Copies of important medical records, such as proof of vaccination, a current photo and any registration documents relating to your pet. Keep this in a waterproof pouch.
- A spare lead. In emergencies you may not be thinking clearly, so this will save valuable time trying to locate their usual one.

Tools

- Hypoallergenic, disposable gloves, for better protection.

- Clean cloths.
- Cotton buds. These are useful for cleaning around delicate areas, such as eyes, outer ears, and nostrils, or for cleaning wrinkles. They can also be used to gently apply ointments and lotions, and to clean between paw pads.
- A pair of sharp/blunt medical scissors. These have sharp blades but rounded ends for cutting away bandages and dressings without risking cutting the animal's skin or fur.
- Eye droppers or medicine syringe.
- Safety razor or grooming clippers.
- Stainless steel tweezers, for extracting thorns or splinters from paws or noses, or bones from throats. Choose ones with a good grip and fine ends.
- Needle nose pliers.
- Magnifying glass, to make it easier to locate and treat small wounds, or remove thorns and splinters.
- Wooden tongue depressors, to make it easier to remove items lodged in the throat.
- A digital thermometer.
- A small plastic card, for example, an old credit card, for scraping away stingers.
- A small flashlight and spare batteries.
- A whistle.
- Foil blanket. Also known as a space or Mylar blanket, these are made of metalised polyester film, and are used to maintain body warmth. Shock can cause the temperature to drop, as can blood loss. Likewise, if an animal is outside in cold or wet conditions. These can easily be purchased online or from camping stores.
- A muzzle to prevent your pet from licking off medicine or ointment. However, a muzzle should never be used if an animal is coughing, vomiting, or experiencing breathing difficulties.

Bandages and pads

- Self-adhesive/self-cling bandages. These offer several advantages over normal bandages: they don't require pinning or tying; won't slip; don't stick to the fur; and provide support without becoming too restrictive.
- Sterile, wrapped gauze pads in a range of sizes (they are generally available in 2"x2", 3"x3", and 4"x4"). These have a range of uses: to absorb blood and fluids; to apply antiseptics; and to protect the wound from germs and infection. A 2" wide gauze roll is also useful.
- Sterile, wrapped, non-adherent pads. Gauze can stick to open wounds, while these do not. They can be used in the same way, and allow air to circulate and the wound to breathe.
- Elasticated bandages, such as Tensor. These provide support to strained or sprained limbs and joints, and are secured with small, toothed clips, which you should also ensure you have available. Two five yard rolls of 2" wide bandage is recommended.
- Sterile abdominal pads. These are larger, highly absorbent pads which absorb fluids into a cellulose centre, wicking them away to prevent pooling. These are ideal for larger wounds.
- Triangular bandage, with hemmed edges, also known as cravats. These are useful for holding absorbent pads in place on larger wounds, or where it needs to reach a long way, for example, around the neck or trunk of the animal. They can also be used to treat head wounds.
- Assorted bandages, in a range of sizes. Boxes containing multiple sizes can be purchased.
- Medical, adhesive, hypoallergenic tape. This can be useful for holding gauze bandage or splints in place.

Cleansing and lubrication

- Alcohol-free antiseptic wipes, lotion, spray or powder. Benzalkonium chloride wipes are particularly useful, and you should consider keeping a good quantity in your

first aid kit. They can also be used to sterilise your hands.

- Antibiotic ointment.
- Saline solution, which is useful for rinsing and soothing irritated nasal passages (particularly in case of allergies), or washing eyes.
- Hydrocortisone cream. This reduces itchiness and irritation. It can also be used for allergies or infection. However, it should be used sparingly, and you must ensure that your pet does not try to lick it off. It is best to seek veterinary advice before using it, and any ongoing issue should be investigated to diagnose the underlying problem.
- A water based, sterile lubricant, which can be used to moisten skin.
- Petroleum jelly.

Pain relief

- Instant, self-activating hot and cold packs. Their usage is covered in detail later.
- For dogs, buffered aspirin. This helps treat inflammation, pain and lameness, and promotes mobility. It is recommended for relieving arthritic pain, surgical discomfort, or joint disease. However, it is always best to consult your vet before administering it, and it should never be used with cats.
- Insect sting relief pads.

Other

- Styptic powder can stem bleeding from paws or nails. However, it can sting, so it is best to hold your pet, or ask someone else to, while you apply it, and consider taking precautions such as using a muzzle, or holding a cat's paws, to prevent them causing injury should they react badly to the sensation.
- Epsom salts diluted in water can be used to relieve dry or irritated feet, or soften splinters to make them

easier to remove.

- A bottle of 3% hydrogen peroxide solution. This can be used to induce vomiting in case of ingestion of poison, but should be used with care and great caution. It should not be used to clean wounds.

1.9 Hot and cold treatment packs for your pet

Hot and cold packs are particularly useful for pets who are recovering from injury or surgery, are going through rehabilitation treatment, or who have ongoing conditions.



They are a simple, effective treatment that owners can administer at home to ease their pet's discomfort, and aid recovery.

As with any treatment, it is always best to seek expert advice before administering treatment, to ensure that you are applying it correctly.

1.10 Heat therapy and heat packs

Heat therapy can help reduce muscle and joint pain, and spasm; improve nerve conduction (i.e. treat numbness), and improve the elasticity of fibrous tissue, to increase mobility.



It can also help to improve blood flow, and lower blood pressure. If your dog is undergoing physiotherapy or other physical rehabilitation, applying heat packs beforehand can help your pet relax.

When applying heat, care should be taken that it is not too hot. The pack should be wrapped in a towel or cloth rather than applied directly to the skin or fur. In addition to shop-bought heat packs, homemade ones can be made through heating a wet towel in a microwave, or dipping one in warm water.

Ideally, the heat pad should be applied for 10-15 minutes.

1.11 Ice therapy and cold packs

Cold pack therapy (also known as cryotherapy), is known to reduce inflammation, swelling and spasm, which reduces pain.



Applying cold causes the blood flow to the area to decrease, restricting the amount of fluid that can collect in the area and cause discomfort.

It is recommended by vets for certain soft tissue injuries, and conditions such as osteoarthritis. However, in some cases, cold can hinder the healing process, so veterinary advice should be sought before commencing treatment.

As well as commercially-available ice packs, another option is to combine one part rubbing alcohol with two parts, before freezing. More traditional options, such as packs of frozen peas or vegetables can be used for ice therapy can be utilised, but these thaw much more quickly and are less likely

to penetrate into the deeper soft tissues.

Some freezer packs may not be suitable as they do not fit the contours of the animal's body, and so do not effectively treat the problem. Others can contain chemicals which could prove harmful should they be ingested or come into direct contact with the skin. For this reason, homemade ice packs can be safer.

The pack should always be wrapped in a cloth to prevent it touching the skin directly. Direct contact with the skin can cause ice burn, and owners should ensure that they check for signs of irritation every five minutes during ice treatment. If it is being applied to a wound or an area that has been stitched, applying sterile pad or an antiseptic ointment helps to prevent infection that may be triggered by moisture from the pack.

For best effect, the pack should be applied to the entire area of inflammation, for example, for knee problems, it should be applied to the front, back, and sides of the joint. Normally, ice packs should be used for no more than twenty minutes, but if the animal has a particularly thick coat, it will take longer for the cold to penetrate.

Activity 1

Estimated time: 10 minutes

Thinking back to what you have read, why is it important that pets be registered with a vet? What are the benefits of attending the same clinic throughout your pet's lifetime?

What routine care does a vet provide, and what is the importance of this care? What emergency treatments might a vet perform, and what areas of specialism are there?

Activity 2

Estimated time: 10 minutes

First aid can make a significant difference to the outcome of an emergency situation. What kind of emergencies do you think an owner should prepare for? What techniques would it be useful to learn in advance? What materials would be required for treating each? Is there anything missing from the first aid kit list that you think would be useful?

Assignment

Types of Veterinary Services, Equipment for Pet First Aid Kit

Time: 30+ minutes

Hopefully, you took in as much of the information in this first module as possible. To find out how well you have done, complete the following worksheet.

Download the worksheet below and complete.

[Download Worksheet \(PDF\)](#)

Module summary

Pets enrich our lives and provide invaluable love and companionship. The benefits of owning a pet have been demonstrated by science, with pet owners shown to be happier and healthier than non-owners, and they deserve the best care available. Animals are unable to speak for themselves and so it is down to their owners to ensure that they receive everything they need.

Veterinary science has a history going back at least 5,000 years, and has made enormous strides over the last century, so that animals can now enjoy some of the best medical care in the world. Owners should register their pet with a vet, and

consider taking out insurance, which will help ensure that their pets always get the treatment they need when they need it.

Effective first aid can make the difference between life and death so, in addition to professional care, owners should familiarise themselves with first aid techniques, and put together a first aid kit for the home. The list given above will ensure that owners are prepared for almost any emergency that their pet may experience.

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Module 2 : Understanding the Anatomy & Home Examination of Pets

In this module you will learn:

- The anatomy of the dog
- How to carry out a physical examination of your pet
- Common issues to check for
- The importance of trimming claws, and how to do it yourself
- The signs and causes of lameness and limping

2.1 Introduction

One of the most important aspects of pet care is the ability to identify whether problems are minor, or require professional intervention.

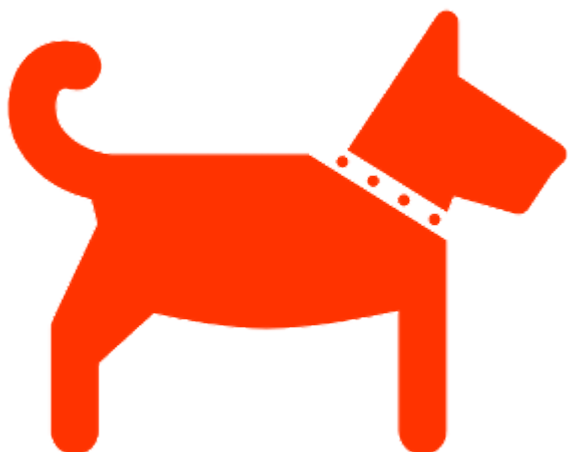


As discussed in Module 1, effective first aid can make a real difference in the outcome of an emergency, until it is possible to get the animal to a vet. In the event of a crisis, time is a luxury that is often not available. Lack of preparation can result in stress and pain for both owners and pets.

The first step in improving your ability to handle an emergency, and which will also assist with daily care, is a working knowledge of your pet's anatomy. This will also enable you to identify when your pet needs medical attention.

This module will explain the anatomy of the dog, detail the steps involved when making a complete physical examination of your pet, and discuss common issues that you should look for.

Fact



In 2018, the RSPCA estimated that there were roughly 9 million dogs in the UK

Source: media.rspca.org.uk

2.2 The anatomy of a dog

While it is not necessary for pet owners to complete a course in physiology, they should consider familiarising themselves with the basic anatomy of their dog.



Looking at your dog's frame should enable you to be able to identify the parts described.

Dogs have many of the same organs, bodily processes, and anatomical parts as humans.

As with humans, the heart pumps the blood around the body; the

lungs are necessary for breathing; the liver removes toxins from the blood; the kidneys regulate the blood's water and wastewater content.

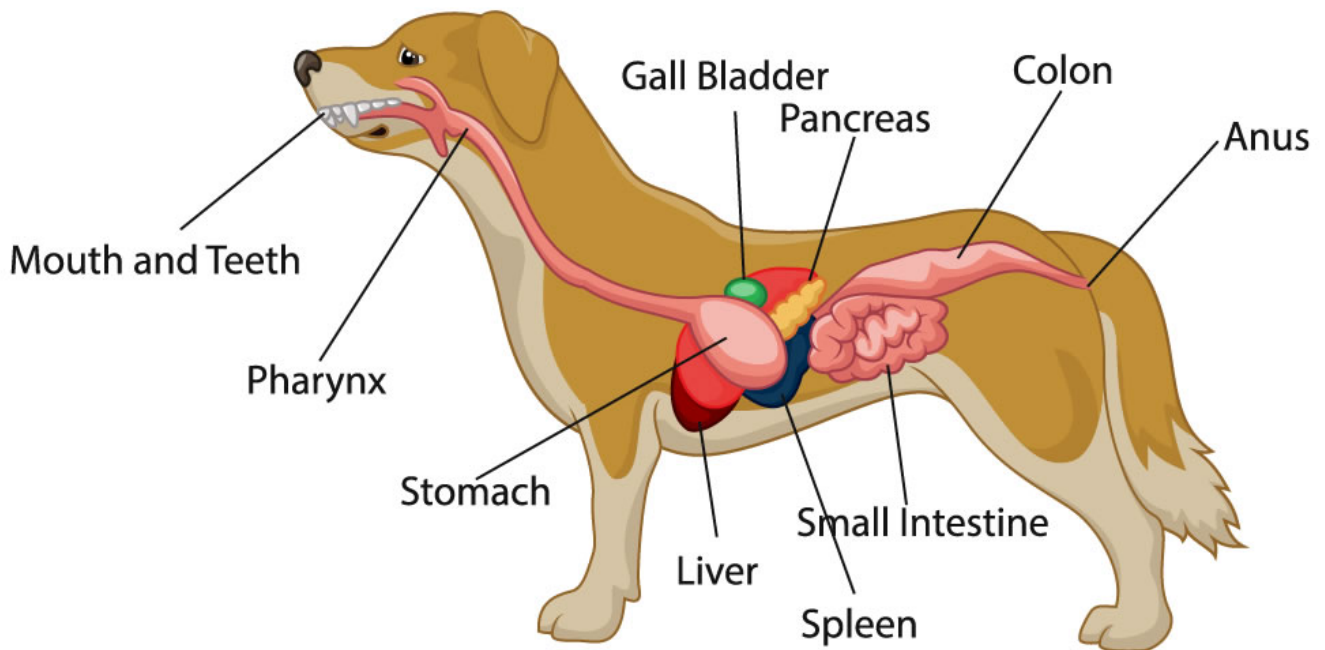
Dog's digestive system

A dog's digestive system is similar to a human's, although there are some differences. The canine digestive system is the shortest of all mammals, and so the entire digestive process takes around 8-9 hours.

The key parts are:

- Mouth: dog's mouths are different from humans'. Their teeth are designed to tear and bite off large chunks of food, chewing is minimal, and saliva plays little part. Saliva is mainly used for the cooling process, as the tongue is one of the few places that dogs can effectively lose heat.
- Oesophagus: the pipe which transports food from the mouth to the stomach.
- Stomach: where food is digested. It contains high levels of hydrochloric acid, which causes the breakdown of the large pieces of protein that dogs eat. They also have an automatic regurgitation impulse, which allows incorrectly processed food to be brought back up and then reswallowed. Food is usually processed in the stomach within around three hours, although this depends upon the type of food. The capacity of the stomach will depend upon the size of the dog.
- Small intestine: the small intestine extracts the nutrients from the now-liquid food. It is where the main process of digestion takes place.
- Large intestine/colon: removes the last of the water from the food, and processes the waste before it is expelled through the rectum.

Dog Digestive System



The skeleton

The head

As a pet owner, you are probably already familiar with parts of the head area, as we often clean the face, wipe over their eyes, check their ears, and brush their teeth. The head is also an important area when grooming.

The key parts of the head are:

- **Nose:** dogs' noses should be wet cold. The wetness is due to a combination of mucus secretion, licking, and moisture from the environment. Some breeds of dog have wetter noses than others.
- **Muzzle:** the muzzle can also be known as the foreface, and is the area from the eyes to the nose, and includes the upper and lower jaws and lips.
- **The stop:** this is the indentation between the muzzle and forehead that runs centrally and vertically between the

eyes. It is not visible in all dog breeds.

- The forehead or braincase: similar to a human, it extends from the stop to the back of the skull.
- Occiput: the occipital bone is the protuberance at the back of the skull. The size varies dependent on the breed, and it was traditionally believed that the larger the projection, the better the sense of smell, although there is no evidence for this. As a result of this belief, scent hounds have been bred to have particularly prominent occiputs. The actual occipital bone reaches down the full length of the back of the skull and meets the neck.
- Ears: these may be pricked (upright), button (with a fold), or dropped (hanging down).
- Eyes: dogs' eyes are usually brown, although some breeds may have blue eyes, for example border collies, or Siberian huskies.
- Whiskers: these are sensory and can detect subtle changes in air currents, and the speed and size of nearby objects. This can help them sense danger.
- Flews: the lips. In some breeds, for example bloodhounds, these are large and heavy.
- Cheeks: the sides of the muzzle.

Neck and shoulders

Comprises:

- Nape: the back of the neck, where it meets the skull.
- Throat: the front of the neck, below the jaw.
- Withers: the highest point of the shoulders, and the tallest part of the body.

Chest and trunk

Comprises:

- Chest: for dogs, this is not the front of the body. It

is actually where the rib bones are, which are situated at the front of the trunk, and ends just above the shoulder blades.

- Back: technically, this runs from the shoulders to the end of the rib cage, but more colloquially, usually refers to the entire length of the spine, from the shoulders to the top of the tail.
- Loin: the correct term for the area between the end of the rib cage and the start of the pelvis.
- Abdomen: the soft, fleshy underneath of the dog.
- Flank: the side of the dog between the end of the chest and the back legs.

Legs

The front and hind legs of a dog are very different from each other.

Although known as legs, the sections of the front limbs of a dog are called by the same names as human arms. The upper part consists of the humerus bone, and is similar in structure to human upper arms. The lower leg meets the upper leg at the elbow, which is positioned just below chest height. This section is lengthier and, as with a human, consists of the ulna and radius bones. The joint where the lower leg meets the paw is known as the wrist. While the elbow bends the same way as in a human, the wrist is limited to an up and down movement.

We use little of the same terminology for dogs' back legs compared to human legs. The area above the knee is the upper thigh. The knee is also known as the stifle, and sits at the front of the leg, in line with the abdomen. The lower part of the leg is the lower thigh. What we would consider the ankle is called a hock. The hock is the sharply-angled joint at the back of the leg.

Paws

A dog's paw is surprisingly complex, so we will break it down into sections.

- **Bones:** The bones found in a dog's paws are similar to the bones that we have in the palms of our hands, and our feet excluding the toes.
- **Pads:** The paw is comprised of five pads on the bottom – the main pad and four toe pads – plus an additional small pad, just below the wrist. This pad is technically called a carpal pad, but more commonly known as a stopper pad. It provides additional traction when stopping, or going downhill.

Toes and claws

Although there are four toe pads, a dog has five toes. The last one, which is located on the inside of the leg, at wrist and ankle height, is very small. Each of the normal toes has a curved claw.

Dew claws

The claw on the small, inside toe, is known as a dew claw. Most breeds only have these on the front paws, although some breeds, such as Pyrenean Mountain dogs, also have them on their rear legs.

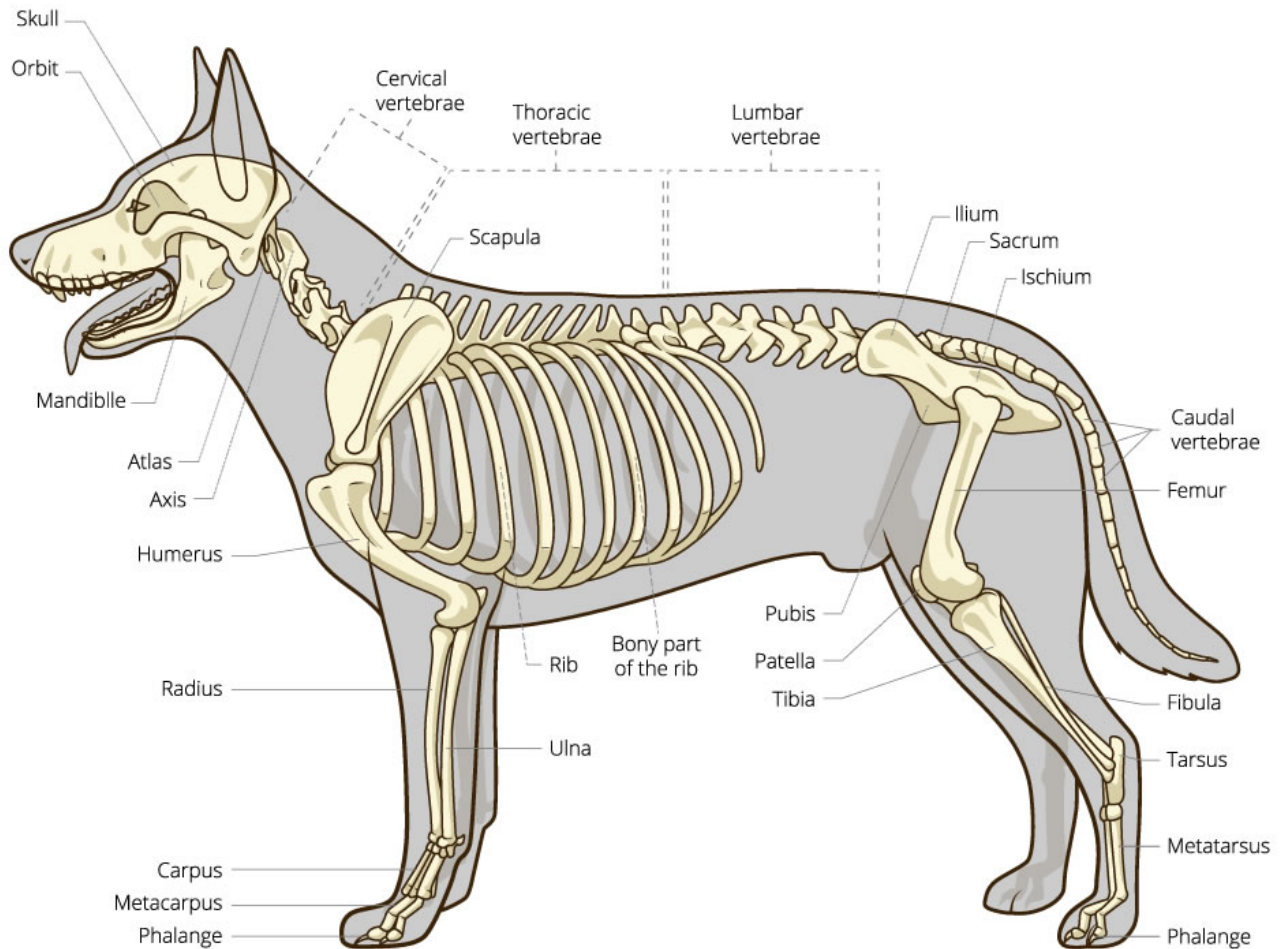
Dew claws can seem to have little function but they can be used to help grip bones for chewing. However, sometimes they are very loosely connected to the leg, and so may be removed to prevent them snagging on furniture or floors, and becoming painful.

Unlike humans, dog claws are part of the last toe bone, and so have blood flow to them. Unless care is taken, it is easy to catch the 'quick' when trimming them, causing them to bleed.

Tail and pelvis

The area around the pelvis is the croup, or rear, while the tail set is where the tail is attached to the dog. The tail can be set high or low.

Dog Skeleton



Activity 1

Estimated time: 15 minutes

Mark the diagram below with as many of the anatomical terms as you can remember from above, including the head.

Can you remember the terms for the different types of ears?

2.3 Physical examinations at home

Detailed examinations carried out at home, can help identify illnesses or health conditions that need care or treatment.



There are a number of health problems that can develop and become serious within a relatively short space of time. The good news for owners is that monitoring your pet can help you detect signs of disease early on. This allows for timely intervention, which will minimise the potential for ongoing issues. The earlier a problem is identified, the more treatable it is.

Animals that are handled regularly will be more comfortable with being examined.

A physical examination once a month, checking for lumps, bumps, and other unusual features, is sufficient. Keep a record of dates of checks, and details of anything unusual. Should you need to consult a vet, this information will be invaluable.

2.4 Examining the head

To carry out an examination and make an assessment of your pet's health is relatively simple, and gently placing your hands in a few key areas will provide a good insight.



Mouth

Check the mouth by gently lifting the upper lip and checking the colour of the teeth and gums. Teeth should be white, while gums should be a healthy pink. Dogs can be prone to the build-up of tartar, which can lead to gingivitis. Gingivitis causes irritation to the gums and tissues, leading to gum disease if untreated. There has been some correlation between organ damage and gingivitis, but this has not been studied enough to draw a definitive conclusion. If the gums have darkened in colour, or there is discolouration of the teeth, your vet may recommend professional teeth cleaning.

Just like humans, dogs have pulp inside their teeth. If teeth crack or break, this can be exposed, causing extreme pain to your dog. However, if a tooth has been worn this is unlikely to be causing them pain.

For example

As possible in older dogs

Owners should also check for growths in the mouth. Mouth cancer is fairly common in dogs, with tumours typically found in the roof of the mouth, or around the upper teeth. Larger dogs aged between 6 and 22 months are most prone. In addition to lumps, other signs are excessive drooling or foaming, problems chewing, blood in the mouth, weight loss, and loose teeth.

Nose

Even a healthy dog's nose may not be wet and cold all the

time.

Weather and humidity may cause it to be drier or warmer. However, noses that are dry and cracked, scabby, or red and sore, should be checked. Equally, any sort of unusual discharge should be investigated, as it may indicate a respiratory infection or a blockage.

Eyes

Check for abnormal growths in the whites (sclera) of the eyes, by gently lifting the upper eyelids. The sclera should be white, although there may be a few visible blood vessels. If the vessels look enlarged, you may want to get them checked. Sclera that are discoloured could be a sign of metabolic problems, while yellowishness can indicate liver malfunction.

Runny eyes are common, particularly in breeds like pugs or bulldogs, which have bulging eyes. If, however, the dog is rubbing its eyes, or has a greenish discharge around them, this could suggest such issues as blocked tear ducts, turned-in eyelids, or ingrowing eyelashes. This should be checked by a vet, as it may require minor surgery.

Other things to look for are discharge, redness, crustiness, or irritation. These could be indicators of allergies, or foreign objects becoming lodged in the eye, or chronic conditions such as glaucoma.

Young dogs' eyes should be bright and clear. In older dogs, eyes can become cloudy. Owners may wish to monitor how this progresses over time, and seek professional advice if they have concerns.

Ears

Some dogs are prone to excessive wax and dirt in the ears. This is because the length of the ear canal in a dog's ears allows for the accumulation of debris and other irritants, which cannot easily be shaken out.

Breeds with pricked ears rarely have hidden problems.

However, those with long, dropped, or particularly furry ears should be examined carefully on a regular basis, as the warm, damp environment encourages the growth of fungus, yeast and bacteria.

Crustiness, bleeding, scabs, sores, and bad odours should all be checked for. A dark, waxy discharge can indicate ear mites, while a foul smell accompanied by a pus-like fluid suggests a bacterial infection.

Where there are signs of excessive wax and dirt, but not infection, a vet-approved liquid cleaner, gently applied with cotton wool to the outer ear in a circular motion, is a safe and simple treatment. Owners should be careful not to push dirt towards the ear canal, as it can become more deeply lodged. After cleaning, your pet may shake its head. This also helps to loosen dirt.

Dogs with thick fur can develop mats behind the ear, which can affect freedom of movement, or even cause sores. The fur should be kept brushed, be clipped if necessary and matted hair removed.

Some breeds, like Lhasa Apsos, have thick fur inside the ear. This should be trimmed regularly to help prevent infection.

2.5 Examining the body

Pet owners can gently feel along the body to identify sensitive areas, and check for lumps or changes in the musculature.



This is easier on short, thin coated breeds. For dogs with thicker fur, owners may need to get their fingers into the fur to be able to feel any changes to the skin or tissues below. The examination should encompass the neck, back, shoulders,

abdomen and legs.

Lumps and bumps deserve special attention.

The speed of growth does not indicate whether or not they are malignant, and all lumps should be checked by a vet. If you find a lump, make a note of the size and appearance, and when you last checked the area. This will give the vet an indication of how quickly it is growing.

When performing an examination, owners should be particularly careful to check areas such as under the leg joints, under the tail, behind the ears, and anywhere where small foreign objects can become lodged. Anything found should be removed.

2.6 About ticks

Sometimes, small bumps can be a sign of ticks or other biting insects.



Ticks can cause Lyme disease, which has symptoms including fever, appetite loss, lameness, joint swelling, and stiffness, and can lead to kidney failure, heart and neurological problems. Other diseases carried by ticks include ehrlichiosis and babesiosis, although the latter is very rare in the UK.

There are different species of ticks, with around twenty types indigenous to the UK. Some soft bodied, while others are hard bodied. In the UK, it is usually the hard bodied ticks that are found on pets or people.

Ticks are a member of the arachnid family, having eight legs, and are black or brown in colour. Sizes range from around 0.5mm up to 11mm, although the larger sizes are achieved only

after they have managed to feed on a host for several days. Dogs that spend time outdoors, particularly if they are exercised in leafy or woody areas, are more prone to picking up ticks. Ticks are more common in warmer weather, although even a few milder days in winter can cause them to become active.

As ticks have to burrow to attach themselves to a host, brushing after walks will help to dislodge them before they have time to attach. In addition, the head, face, paws, and joints should be checked for signs.

Tips for safe and effective tick removal

Before removing a tick, have the following available:

- Gloves
- A clean pair of tweezers, preferably pointed OR a tick remover
- Pet-safe antiseptic cream
- Isopropyl alcohol in a container
- Someone to help if possible

Then follow this method:

- Put on the gloves as ticks can transfer diseases to human.
- Keep your pet calm. Many animals get nervous if they are poked or prodded, so this is where another person will come in useful.
- If using tweezers, grasp the tick as close to your dog's skin as possible. If using a remover, slide the notch under the tick.
- Pull it out in a straight, steady action, ensuring that it is removed entirely. Anything left behind can lead to infection.
- Drop the tick into the container of isopropyl alcohol to kill it. Note the date, and keep the tick. If the dog

displays signs of infection, your vet will want to know the date you found the tick, and may want to see it to help them identify the type of infection.

- Clean the wound with the antiseptic cream.
- Clean the tweezers or tick remover with the alcohol, and wash your hands carefully.

2.7 Examination of the abdomen

Make your pet lie on its back.



Gently run your hands over the belly region, from the ribs to the loin. Check for lumps, bumps, swelling, or distention (a particularly swollen stomach area). Distention can be caused by trapped gas or fluid.

If your pet experiences pain from being touched, it requires immediate medical attention. Pain may be caused by digestion, internal bleeding, tumours, or abscesses.

2.8 Examination of the paws

Animals often do not like having their paws touched, so examining them may be trickier than when looking at other areas.



Gently take each paw in turn, and examine the spaces between

the toes and the area under the paw. Look for signs of soreness, particularly between the toes, as this area is warm and moist, and so can breed bacteria and fungus.

If you see your pet licking its paws excessively, this can be a sign that they are experiencing discomfort.

If you exercise your dog on concrete, the pads can become dry and cracked. Although the UK rarely experiences especially hot or cold weather, pet owners should take some precautions when it happens.

In hot weather, dog owners may prefer to exercise their pets before the sun gets too strong, and after sunset, particularly if you normally exercise them on tarmacked areas. This will help prevent their paws getting burned and causing them pain.

In winter, snow and ice can cause paws to become sore, both because of the cold and because of the products used to melt the ice. If you notice your dog limping after its walk, this can be a sign that it has been affected. In this case, wipe your dog's paws with warm water.

Another problem in snowy conditions can be the formation of ice balls between their toes. To reduce the likelihood of this happening, keep the hair between the toes trimmed, particularly if the fur is thick. Short, frequent walks are better in cold conditions to prevent the risk of frostbite or hypothermia.

While you may not have heard of it, foxtail is a pointed, arrow-shaped weed whose seeds can penetrate the skin between the toes and cause abscesses. It can also get into ears or be inhaled.

If left untreated, embedded foxtail can become painful and cause infections; these infections can even be fatal.

Loose seeds can be removed using tweezers but if one has become embedded, you should seek veterinary attention.

2.9 The problems associated with overgrown claws and how to trim them at home

Nail trimming is not only a cosmetic issue; long nails can cause pain, irritation, and even permanent deformities.



As discussed earlier in this module, a dog's claws are an extension of the toe bone, so walking on hard surfaces can push them back into the nail bed. This creates pressure on the toe joints, or forces the toes to move sideways, which causes pain and can lead to musculoskeletal issues such as arthritis if left. Traditionally, dogs' claws have been kept short by walking on hard surfaces, which wears them down, however for dogs walked on soft surfaces, this is not the case.

Long claws can cause other problems. Dogs, and other animals, use nerves in their feet to understand the terrain and environment. They also use their claws to judge depth

For example

When climbing stairs.

Long claws can cause the dog to instinctively shift its posture forward to lean on its forelegs, to replicate the motion used when going uphill. However, because they are on a level surface, it will have to compensate by using its hind legs to prevent it falling forward. This forces the dog to bring its legs closer to the body.

Over time, these unnatural adjustments cause the joints to be overused and become painful. The hind legs are particularly affected, and this can lead to the dog being unable to climb

stairs or jump into a car. The wrists of the front legs may also drop, which can make the dog look flat footed.

It is a good idea to trim claws on a regular basis but how often will depend on the dog's activity levels.

The more active a dog, particularly if this involves walking on hard surfaces, the less frequently they will need cutting. As with anything, it is best to start trimming the nails when the dog is still a puppy, as this familiarises them with the process, and reduces stress.

Some dogs will happily allow you to trim their claws, while others will be unsettled and skittish. Speaking calmly and reassuringly during the process will help to keep them still.

To cut the claws, you may wish to get your dog to lie on a table, to make it easier for you to reach. Whether on the floor or table, stand on the opposite side from the paw that you are about to trim, and reach over. A forearm rested on the neck will help to prevent the dog from lifting its head. If the dog won't stay still, get it to lie on its side and lean across it with your upper body.

Owners should be careful to trim only the tips of the claws; as discussed above, claws have a blood supply as they are part of the toe, and cutting too far down will cause them to bleed from the 'quick'.

For dogs with light coloured claws, it is easy to spot the pink-coloured section. Where dogs have dark nails, the owner will need to exercise caution, as it is not visible. You may need to trim the fur on your dog's feet to be able to see the claws properly. Where nails are particularly long, the ends tend to be dry and cracked, making it easier to identify the living tissue.

There are two main types of nail clippers available: scissor and guillotine. Many people find the guillotine style easier to use, although if a nail is particularly long, scissors are the better option. The guillotine style encircles the nail,

while the scissors should be used at a right angle. Owners should ensure that the blade portion faces them rather than the animal. Rather than make one big cut, trim the nail little by little. Hind paws are less sensitive than front paws, so it may be best to start there, although you may find that the claws of the rear paws need trimming less often than front ones.

Should you catch the quick, a styptic powder pencil should stop the blood flow within 3-4 minutes. Hold the pencil to the cut and rotate. Alternatively, dipping the claw into cornflour will also aid clotting. Dip the claw into the flour until it stops bleeding completely.

2.10 Limping and lameness in dogs

There are different reasons that dogs may limp, or display signs of lameness.



Lameness is the inability to place weight on a painful limb, and reduced mobility. It may affect one leg or several, and may be worse at different times of the day, or following rest or exercise.

Lameness may be caused by a number of factors, including accident; bone, joint or muscle problems; or foreign objects becoming embedded. Problems are more likely, or can be exacerbated by obesity, or by excessive exercise and strenuous activity, and are also more prevalent in certain breeds of dog'

For example

Retriever breeds commonly suffer from hip dysplasia.

Common signs of lameness are:

- Reduced range of motion
- Loss of muscle mass or tone
- Abnormal posture, whether moving, sitting or lying
- Abnormal movements while walking, trotting, or climbing stairs
- Unusual trembling
- Clicking or other sounds during movement of joints

If a dog is holding its legs further forward than normal, it may be because it is experiencing pain in the hind legs, and is trying to reduce the pressure. Over time, you will notice that the claws on that paw will be longer than those on the other feet, as the reduced usage means that they are not getting the same wear.

If the lameness is in a front leg, the head and neck may drop forward as the affected limb is used, then go back to the normal position when the other legs are used. If it is in a back leg, the pelvis will drop, then rise back into position when the weight is removed. If the animal appears to be moving its weight forward to its front legs, with them appearing lower, it could be that both back legs are affected.

If seeking professional advice, owners should make a note of any patterns of lameness as this will aid the vet in making a diagnosis and prescribing treatment.

For example

Time of day, or after rest or exercise.

Treatment by a vet may include bandage, splint, or cast. At home, owners may be instructed to restrict the amount of activity, or to ensure that it is not too strenuous. If the dog has a strain, sprain, or torn tendons or ligaments, the vet may recommend that the pet be kept in a crate or restricted space to prevent further damage and increase the likelihood of healing without surgery.

2.11 Examination around the tail

Finally, it is important to check the rear area of the dog, especially under the tail and around the loin region.



In this area, look for redness, swelling, or skin irritation, particularly if you have noticed your dog licking itself more than usual. If your dog has been dragging itself across the floor on its bottom, this is a common sign that it needs its anal gland emptying, which should be done by a vet. If you see small, whitish, grain-like items around the anus, wipe them away with a paper towel while wearing latex gloves, and carefully dispose of them. These may be a sign of tapeworm, and you should request a worming medication from your vet.

Activity 2

Estimated time: 10 minutes

What are the common things that you should look for when examining your dog?

Include the potential causes, for example, what could be the causes of small lumps and bumps, or lameness?

Assignment

Understanding the Anatomy & Home Examination of Pets

Time: 30+ minutes

Hopefully, you took in as much of the information in this module as possible. To find out how well you have done,

complete the following worksheet.

Download the worksheet below and complete.

[Download Worksheet \(PDF\)](#)

Module Summary

Having a working knowledge of your dog's anatomy is useful for owners to have. This, combined with regular examination of your pet, will help you to identify any problems, allowing for timely medical intervention.

Keeping a record of such examinations, with dates, will assist the vet should treatment be required. A home check over once a month should take no more than 10-15 minutes, and will help to ensure your pet stays healthy.

An examination should include all of the animal. From ears, eyes, and mouth, down to its tail and rear end.

Anything unusual, especially lumps, discharge, rashes, and sores, should be investigated by a vet as soon as possible.

Claws should be checked and trimmed as necessary, and signs of limping or lameness monitored.

[Tweet "I just completed Module 2 of the Pet First Aid Course"]

Module 3 : How to Check for Vital Signs and treating wounds

This module will cover:

- Checking your pet for vital signs
- How to check for temperature, heartbeat and respiration rate
- Signs, causes and home treatment for dehydration
- How to treat external and internal wounds and stop bleeding
- How to bandage wounds

3.1 Introduction

Part of being a pet owner involves the responsibility for your pet's physical and mental health.



Educated, informed owners are able to enhance their pet's health and life, and protect them from disease and disability. As covered in Modules 1 and 2, it is sensible to have a well-stocked first aid kit, and to have knowledge of your pet's anatomy and what to check for on an ongoing basis. Another important skill is to know the normal ranges for vital signs, which include temperature and heart rate.

No matter how careful we are, accidents happen, and being prepared is essential. Blood loss is particularly dangerous,

and knowing the techniques to stop haemorrhaging so that the pet can be safely transported to a vet, could make the difference between life and death.

Remaining calm in a crisis is key.

Any owner will be aware that their pet picks up on their mood, especially if they are stressed. If you stay calm, they are more likely to also remain calm.

However, be aware that a pet in pain or shock, or one that is scared, may act aggressively, even if that is not their normal personality.

For this reason, it may be worth having a muzzle handy, although this should never be used if the pet is experiencing breathing problems, or vomiting.

3.2 How to check your pet's vital signs



Body temperature

As with humans, an unusually high or low body temperature is also a sign of illness in dogs. Any dog that appears to be ill, or just not themselves, should have their temperature checked.

While touching your pet's ears will give you a rough indication of their temperature, it is far from accurate. Hot ears can suggest a fever, while very cold ears can indicate

shock or hypothermia. The only way to be sure, however, is to check the internal body temperature, which is best done with a digital, or medically-safe mercury, thermometer. Owners may prefer a digital thermometer as they are stronger, less likely to break, and are easier to use correctly.

Using a rectal thermometer

If using a rectal thermometer, it is wise to have someone to help, preferably someone the dog knows and trusts. As the dog is likely to be nervous, one should hold the animal and talk to it calmly and reassuringly, while the other inserts the thermometer. It is best to coat the thermometer before insertion, to make the process easier.

A dog's normal rectal temperature is between 101 and 102.5 degrees Fahrenheit, or 38.3 and 39.2 degrees Celsius.

If using a mercury thermometer, ensure that you shake it first and that the mercury is below 94 degrees Fahrenheit. You may wish to wear gloves, and have a piece of paper towel to hand.

The process:

- Lubricate the thermometer with a water-based lubricant, petroleum jelly, or KY Jelly. Preferably warm the tip slightly.
- Have one person hold the dog, and/or make it lie on its side.
- Hold the tail clear of the rectum, then begin to insert the thermometer slowly, with a twisting movement.
- Dependent on the size of the dog, the thermometer should be inserted to a depth of one to three inches (2.5-7.5cm).
- If using a mercury thermometer, hold it in place for around two minutes. If it is a digital one, keep it in place until it beeps.
- Gently remove it, wipe it clean, and read the temperature. The thermometer should be almost clean. Any deposits, such as blood, diarrhoea or black, tarry

- stools are strong indicators that the animal is ill.
- Disinfect the thermometer with rubbing alcohol and water after use.

Taking the temperature by ear

An alternative method is to check the temperature via the ear, which is a less invasive method. Ear thermometers are generally more expensive than rectal ones and, unless used correctly, can be less accurate. They work by measuring the infrared heat waves emitted from the eardrum, which reflect the temperature of the blood in the brain. They often have a long handle, which is able to detect the temperature deeper inside the ear canal.

For an accurate reading, the thermometer needs to be placed horizontally along the ear canal. A normal ear temperature is between 100 and 103 degrees Fahrenheit, 37.75 to 39.5 degrees Celsius.

If, by using either method, the dog has a temperature below 99 degrees Fahrenheit (37 degrees Celsius), or over 103 degrees Fahrenheit (39.5 degrees Celsius), then you should consult a vet immediately.

3.3 Checking for heart rate

There are three areas on a dog or cat where it is possible to check for the heartbeat or a pulse.



Whichever you choose, the pulse will be in time with the heartbeat. The rate of the heart will depend upon the species, breed, and general health of the animal. Smaller breeds have

faster heart rates than larger ones. Dogs that are in good physical shape will have a slower heartbeat than those that are not.

The normal heartbeat range for dogs is between 60 and 160 per minute. Puppies will have a faster heart rate. For cats, it is between 160 and 220.

Breathing can cause a variation in rate, as it may speed up during inhalation and slow down during exhalation. As heart rate can vary so much, it is a good idea for owners to check their pet's heart rate periodically when they are in good health. This will enable you to establish a normal range, and also get your pet used to you doing it.

Checking the heart rate is a simple process:

- Place your hands on your pet's chest, near to the elbow joint, and feel for the heartbeat. Count the number of heartbeats that you can feel in 15 seconds. Multiply by four for the beats per minute.
- Place two fingers on the inner side of the hind leg where it meets the body. This is where the femoral artery is located. Make sure you do not use your thumb, as thumbs contain a pulse. Locating this pulse is easy in dogs, but much trickier in cats.
- There is also a pulse on the back of the paw, but this may be harder to feel.

The readings for each area should be almost identical although, if your pet has become excited or agitated by you touching them, it will increase.

3.4 How to check the respiration rate

The respiration, or breathing, rate for dogs varies from 10 to 30 breaths per minute, while for cats it is 20 to 30.



The rate, as with the heart, varies dependent on size and health, and puppies or kittens will breathe faster. In medicine, one breath is one inhalation and one exhalation.

The best way to check your pet's normal respiration rate is when they are relaxed, usually lying down or sitting still. As with humans, they will breathe faster after exercise or if excited.

You will need to be able to observe the movement of your pet's ribs to be able to count their breaths. One breath is a rise and a fall. As with the heart rate, observe them for 15 seconds and multiply by four to get the rate per minute. If you are inexperienced, it may be worth counting the breaths for an entire minute to ensure that you are observing them correctly.

If your pet ever seems to be gasping for air, or their breathing is shallow or laboured, you should seek veterinary care immediately.

Other signs that your pet may require medical attention are:

- Any new or unusual noises while breathing.
- A change in the sound of the bark, which could indicate a disease such as laryngeal paralysis.
- A wheezing sound during respiration, which could signal an allergy or asthma.
- Sudden and frequent sneezing, which could be caused by an obstruction of the nasal passage by a foreign object.
- Lying down with its elbows or head further out than

usual. This could be a sign that they are finding it difficult to take in oxygen.

- A drastic change in their normal breathing rate.

3.5 Signs, causes, and treatment of dehydration

Dehydration is a potentially fatal problem that needs immediate treatment if organ failure and death are to be avoided.



Dehydration occurs when the water lost from the body isn't replaced, which also upsets the balance of electrolytes and minerals in the body. Usually the body can reabsorb fluid from blood and other cells, but in cases of severe dehydration, there is not enough fluid to get blood to the organs, which leads to their failure.

Dehydration has a number of causes, which include diarrhoea and vomiting, illness, overheating, hot weather, and exercise.

How to check for dehydration

Both dogs and cats have loose skin at the scruff of their necks. Hold this between your thumb and index finger, and gently pull it up. If it goes back to its original position immediately, your pet is well hydrated. If it does not, then your pet may be experiencing dehydration.

If dehydration is suspected, owners should look out for the following:

- Dry, sunken eyes
- Reduced skin elasticity, or sagging skin

- Thick saliva
- Excessive and abnormal panting
- Dry mouth, and nose
- Sunken gums
- Extreme lethargy and eventual collapse

Treating dehydration at home

Administer water, or an electrolyte hydrating solution in small quantities. If an animal has severe dehydration, it is unable to ingest a large quantity of fluid and may vomit it back up.

If your pet refuses to take any liquid, it should be taken to the vets immediately.

Activity 1

Estimated time: 15 minutes

Why is knowing your pet's normal vital signs important?

What are the vital signs that you should check, and how do you check for them?

What are the normal ranges for each?

3.6 Treating wounds and bandaging pets

A wound may require bandaging.



A sterile, well applied bandage can speed up your pet's recovering and reduce the likelihood of infections and other complications. The skin protects your pet from bacteria and other microorganisms. When it is broken, there is a risk of infection.

There are two types of wound: open, such as a cut; and closed, such as a bruise.

Small wounds usually heal on their own without complication, but larger wounds may lead to excessive blood loss, and an increased risk of infection. It is important that owners are familiar with how to treat wounds and stem bleeding.

How to recognise the severity of bleeding:

- If blood is spurting or pouring from the wound, take them to the veterinary clinic immediately.
- If the blood is being expelled in short spurts, medical attention should also be sought immediately.
- If the blood is oozing or seeping, then it is less serious, and can be treated at home.

To treat the wound:

- Trim away the fur from around the wound, to an area of around half an inch (1cm) around. This will make it easier to see and treat the wound, allows more air to it, and reduces the risk of infection.
- Wash the wound to remove dirt and bacteria. Keep washing until it is clean and glistening. One way to do this is by squeezing warm water from a sponge.
- Dilute Betadine, or a pet-safe antiseptic can be gently applied using cotton wool or a clean cloth.
- Gently dry the wound by patting it.
- An antibacterial spray can be applied afterwards.
- Keep checking the wound for signs of infection, and seek veterinary attention.

3.7 How to stop bleeding

There are two types of bleeding: internal and external.



External bleeding occurs from wounds, and is visible.

Internal bleeding cannot be seen, and is usually the result of trauma, such as being hit by a car.

Internal bleeding requires veterinary attention.

Excessive blood loss can lead to shock and/or be fatal, so it is crucial to stop the bleeding as soon as possible. Even the loss of as little as two teaspoons of blood per pound of body weight can have serious consequences. While bleeding can be a stressful situation, owners should try to remain calm so that they can be most effective.

Excessive blood loss can be identified by two symptoms: high heartbeat rate and low blood pressure. Internal bleeding may be indicated if your pet's gums or eyelids are pale; their legs, ears or tail feel cold; or the dog is more excited or subdued than normal.

The first step is to identify where the bleeding is coming from. While this may sound simple, if the wound is covered by fur, or it is between the toes, it may take a little investigation to locate it. Paws can bleed heavily even if the wound is relatively minor, as the capillaries are located close to the surface.

If the wound is deep, or more than 1 inch in depth, it should be checked by a vet. Equally, any cuts to the webbed tissue of the tissue of the feet should also be checked, as they may

require stitches.

Observe the colour of the blood. Bright red blood is likely to be from an artery, which is redder in colour thanks to the higher oxygen content. It may also spurt or pulse in time with the heartbeat. Blood from veins is likely to be darker and ooze or seep from the wound. Both types of bleeding can be life-threatening, but arterial bleeding has a greater level of risk.

There are several ways to stop bleeding. These techniques are described here in order of priority and effectiveness.

Direct pressure

Pressure is the most effective way to stop bleeding. It should be applied directly to the wound using something absorbent.

For example

A cloth, towel, or gauze.

While something clean is always preferable, the most important thing is to stop the bleeding as quickly as possible.

Keep the pressure in place for 3-5 minutes before checking the wound. Resist the temptation to keep checking, as this will disturb the clotting process. If clots appear in the wound, do not touch them, as this can cause the wound to start bleeding again.

If blood soaks through the compress, do not remove it. Add another one on top, and continue to apply pressure.

Elevation to stop bleeding

Elevation is more effective in larger breeds and bigger animals. This is because they have longer limbs, and so there is a greater distance between the heart and the wound, and elevation uses gravity to reduce the blood pressure. The pet should be made to lie down so that the wound is above the heart.

Pressure should be applied in conjunction with the elevation

for best effect.

Applying pressure to an artery

Sometimes, when bleeding is particularly severe, compression and elevation may not be effective in stopping it. In this case, applying your fingers or thumb to an artery can assist in stopping the bleeding. This method requires you to locate the important arterial pressure points, which are situated in areas of the body where you can feel a heartbeat or pulse.

For severe bleeding from the rear leg, apply pressure to the femoral artery, which is located on the inside of the thigh in the groin area.

If the injury is to the tail, then pressure should be applied to the caudal artery, located at the base of the tail.

If the injury is to the front leg, then firm pressure should be applied to the brachial artery on the inside of the leg.

Tourniquet

In the most severe cases, a tourniquet can be applied.

This should be done only as a last resort, and with great caution as it cuts off blood supply and can cause severe damage to the tissue that can, in extreme cases, lead to amputation or death. It should be used only for bleeds from the tail or legs.

A simple tourniquet can be created by wrapping a 2 inch (or wider) piece of cloth around the wounded limb, which is then knotted in place. A tourniquet can be improvised from cloth, rope, belt, socks, or tights. Using a stick or pen to tie the knot around can help to secure it in place. Gauging the correct pressure can be difficult, as it needs to be tight enough to restrict blood flow, but not overly tight. Owners should loosen the pressure every 20 minutes for 5-10 seconds, to prevent damage to the extremities. Make sure that you use something to track the time.

For bleeds from veins, the tourniquet should be applied below the wound, as veins carry blood back to the heart; for arterial bleeds, it should be placed above the wound, as they carry blood away from the heart.

Once the bleeding is manageable or stopped, apply several layers of sterile bandaging and secure it. While the bandaging should provide some pressure, be careful not to wrap it too tightly, as this will result in swelling.

Bleeding from Scratches, Cuts and Nicks

Bleeding from scratches and small wounds is fairly common.

These are easily treated at home, using this method:

- Carefully remove debris, dirt and foreign objects from the wound, preferably by gently pouring water over it (known as irrigating the wound).
- Firmly but gently press a clean, sterile dressing onto the wound.
- Once bleeding stops, ensure that you clean the area thoroughly using pet-friendly antiseptic.
- Wash the area with warm water and a towel, along with antiseptic solution.
- Apply antibacterial ointment around the wound to prevent infection. If necessary apply a bandage, although minor wounds are best uncovered so that they are able to dry out.

3.8 A homemade muzzle

Be aware that however placid and good-natured your pet usually is, it may become aggressive when in pain.



If necessary, a makeshift muzzle can be used to prevent biting.

This can be done as follows:

- Find a long piece of bandage, cloth, leash, or even a belt (preferably a soft material). Ideally, it should be long enough to wrap around the muzzle at least twice, and then be tied at the back of the head.
- Approach your pet gently and speak to them calmly and reassuringly. Try to make sure that smaller dogs are laid down in a comfortable position, while larger dogs should be sitting up so that you can stand with them between your legs.
- Make a large loop in the centre of the cloth or whatever else you are using. It should be around three times the size of the animal's muzzle. Place the loop around the muzzle, pull it tight enough to prevent it from opening its mouth, but not so tight that it affects their breathing. Tie it in place with a single knot on the top of the nose.
- Take the ends of the fabric and loop them around the muzzle again, this time tying a knot underneath the jaw.
- Now wrap the ends of the gauze behind the back of the ears and tie it again.
- Have a pair of scissors handy. If the dog starts to vomit or develops breathing problems, the muzzle will need to be removed quickly.

3.9 Bandaging

In Module 1 you looked at what a pet first aid should contain and for bandaging, sterile bandages of different types, non-clinging, breathable medical tape, and antibiotic ointment are essential.



Bandages serve several important functions: they protect the wound from bacteria and dirt to reduce the chance of infection; they protect it from the animal licking and irritating the injury; and can also provide support for sprain and muscle strains.

As you should remember from above, a wound should first be cleaned using water. Pat it dry very gently with a sterile bandage. If you are unable to find one at the time, a clean paper towel or even a sanitary towel may be used.

Avoid using bathroom or kitchen towels, even if washed, as these can transmit bacteria to the wound.

Good bandaging has three layers, which are as follows.

Contact layer

After cleaning the wound, antibiotic ointment may be applied to the dressing that you are using for the contact layer. The ointment should be one that will not react with any medication that your pet may be taking. The bandage should be sterile, absorbent, and lint free, so that it does not stick to the wound. It should also be porous enough to allow for free drainage from the contact layer into the absorbent later.

If you do not have antibiotic ointment, you will need to change the bandage frequently to prevent bacteria developing. The contact layer may never be reused due to the potential for infection.

Absorbent layer

The absorbent layer both holds the contact layer in place, and absorbs any fluid that may escape from the wound. It is usually made of cotton. The width of the bandage used is important. If it is too narrow, it can be too tight and act as a tourniquet, leading to tissue damage or necrosis. If it is too wide, it is difficult to apply correctly, and will result in uncomfortable creases or wrinkles.

It is a good idea to apply several layers of absorbent bandage so that it is able to soak up all the fluids. It should be thick enough to last until you can reach the veterinary clinic. This layer should be wrapped from the end from the end of the tail, or from the paws up, towards the torso.

Outer layer

The outer layer is there to hold the other layers in place. Getting the pressure right is important to ensure that the under layers remain in situ, but that no further injury occurs from it being overtight.

A good guide to assess if the bandage is the correct tightness is if you can insert two fingers, but no more, under the bandage.

Self-clinging bandages are useful for this layer as it makes taping the wrapping easier. When taping, ensure that it sticks only to the dressing and not to the fur or skin and, again, ensure that the pressure is appropriate.

Additional tips for attending to wounds

Check the dressing frequently for signs of swelling, leaks, discolouration and unpleasant odours. All can be indicative that further treatment is required.

If there is heavy drainage from the wound, consider changing the bandage every two hours, ensuring that new, sterile bandages are used for the contact and absorbent layers.

If the wound has stopped draining, change the dressing every 24 hours.

Fact



The President of the British Veterinary Association has warned owners that throwing sticks for their pets can cause serious injury. Playing fetch with sticks can cause a range of painful injuries, from splinters in the mouth, to piercing vital organs.

Source: bbc.co.uk

3.10 How to Stop Internal Bleeding

Internal bleeding is far more dangerous than external bleeding, as we are unable to see that it is occurring.



Internal bleeding is a life-threatening situation that requires urgent medical attention.

When internal bleeding occurs, it pools in the chest and

stomach, and does not leave the body. It can lead to the organs being deprived of oxygen, resulting in organ failure. Internal bleeding is commonly caused by car accidents and falls, but may also be caused by infections or tumours.

The following signs indicate internal bleeding:

- If in the early stages of bleeding, bright red gums
- If later, pale, bluish gums
- Unusual coldness in legs, ears and tail
- Rapid heart rate
- Shallow breathing
- Coughing up blood
- Lethargy or weakness
- Glazed eyes
- Inability to find the pulse (in later stages)

When you examine your pet's abdomen, it can feel tight and bloated, as the blood pools inside the stomach. To perform the examination, splay your fingers and apply gentle pressure.

Temporary first aid measures to stem internal bleeding

Although you should get your pet to the vet as a matter of urgency, laying the dog on its back and holding its legs in the air will help to alleviate the situation. This will encourage blood to flow to the brain and reduce the likelihood of the animal going into shock.

If you believe that the dog is going into shock:

- Find a strong board and lay the dog down on its right side.
- Wrap the dog in a blanket or towel, using it to secure the animal to the board.
- Place a cushion right under the hind legs.
- Tilt the board up vertically; high enough that the blood can flow to the brain.
- The board can also be used to transport the dog to the vets.

Activity 2

Estimated time: 10 minutes

Bleeding is a serious situation.

What kinds of bleeding are there, and how do you identify them?

How would you treat each type?

Assignment

Checking for vital signs and treating wounds/strong>

Time: 30+ minutes

Hopefully, you took in as much of the information in this module as possible. To find out how well you have done, complete the following worksheet.

Download the worksheet below and complete.

[Download Worksheet \(PDF\)](#)

Module Summary

Knowing your pet's normal vital signs will help significantly in identifying when your pet has health problems.

The vital signs that you should know are temperature and heart and breathing rates. As these vary considerably by species, breed, size, age and health, it is important to know your individual pet's normality to ensure that they receive appropriate medical care when necessary. Any abnormalities should be investigated by a vet.

All animals are vulnerable to accidents, injuries and falls.

Bleeding can be a particularly stressful and dangerous and knowing how to administer appropriate first aid until they can see a vet, will help to prevent the situation worsening. It may make the difference between life and death. Knowing how to stem bleeding and bandage wounds correctly helps to prevent further harm.

[Tweet "I just completed Module 3 of the Pet First Aid Course"]

Module 4 : Treatment of Burns & Choking

In this module you will learn:

- Causes and types of burns, and appropriate treatment burns
- How to deal with incidents of choking
- Symptoms, causes and first aid treatment for shock
- Artificial respiration and CPR for pets of all sizes
- Behavioural changes that may indicate underlying medical issues

4.1 Introduction

Animals can injure themselves in a variety of ways, whether it is eating things they should not, chewing dangerous objects, or getting themselves into unsafe situations.



Burns are one of the most traumatic, painful, and disfiguring injuries they can experience. They can be caused by various things: spillages of hot water or oil, chemicals, fire, candles, or exposed wires. Rapid treatment is essential to limit the damage, as untreated burns can become fatal.

Another serious problem is choking. Like humans, dogs can survive without oxygen for just a few minutes, so knowing how to administer appropriate first aid is vital. Choking can be caused by swallowing a piece of toy or bone, or by something becoming tight around their neck. Rapid action could save their life.

Whatever the cause of an injury or accident, going into shock is a possibility. While the word shock may not sound particularly serious, it is a life threatening condition that requires an immediate reaction and medical attention. In the most serious cases, animals may cease to stop breathing, or even become lifeless. In these circumstances, an owner's knowledge and response could easily mean the difference between life and death.

4.2 Burns

A burn is classed as damage to tissue caused by dry heat.



A scald is caused by wet heat. Whatever the cause, the resulting burn will look the same and requires treatment. Unlike other injuries, burns continue to do harm after the initial accident, as the heat destroys the tissue. They can also cause animals to go into shock, and are prone to infection. For these reasons, treatment should be administered as soon as the owner realises their pet has been injured.

Burns are categorised into four levels of severity, although many people are familiar with only three.

The severity of the burn is judged by the spread, depth, and location of the burn, and the age of the pet will be taken into account. Treatment will depend upon severity, and range from a simple dressing, through to medical removal of dead tissue (debridement), and skin grafts. Older pets will typically heal more slowly due to slower tissue regeneration.

A burn affecting more than 25 percent of the body has an

uncertain prognosis. Once covering more than 50 percent is considered extremely serious, and is often fatal.

First degree burns

First degree burns are the least serious. They affect only the skin and typically present as redness without blistering, although they may be accompanied by swelling or inflammation, and pain. Sometimes the skin may begin to peel, or look dry as it heals. First degree burns generally heal within 7-10 days and do not leave permanent scarring.

Second degree burns

Also known as a 'partial thickness burn', these penetrate to the second layer of skin tissue. They present with redness and blistering, and are very painful. If the blister bursts, the wound will become wet. Over time, the skin may develop a thick, scab-like texture, known medically as fibrinous exudate. Second degree burns take around a month to heal, and may result in a change in the pigmentation of the skin, rather than scarring.

Third degree burns

Third degree burns are severe and penetrate through every layer of skin, and may also be known as 'full thickness' burns.

While people often believe that third degree burns are the most painful, in many cases the affected areas lose sensation, because of the damage to the tissues and nerve endings.

As well as numbness, typical indicators of a third degree burn may be charring and blackening of the skin or, alternatively, a waxy, white colouring (dependent on the cause of the burn); blisters that do not develop; and a raised, leathery texture.

Third degree burns affect blood circulation and cut off the immune response to the area. They may also affect the pet's electrolyte balance, and can lead to hypothermia due to heat

loss from the injury.

For these reasons, they can be life-threatening and require immediate, professional medical intervention. No home treatment should be attempted.

Fourth degree burns

Fourth degree burns not only include all of the damage associated with third degree burns, but also extend into the underlying fat, muscle, soft tissues, and bone. The wound will appear dry and the damage means that there will be no pain experienced.

How not to treat a burn

There are certain things that should never be used to treat a burn.

Traditionally, it was believed that applying oils, fats or butter to a burn would help. This can actually do more harm, as the grease acts as an insulator and prevents the release of heat from the skin, allowing more tissue damage to take place.

Conversely, applying ice might seem like a sensible idea, but this can damage the delicate epidermal tissue, and cause frostbite if it is left in contact with the wound for too long. It may damage the surrounding tissue and slow down the healing process. In addition, as mentioned above, serious burns can lead to hypothermia, and the use of ice may contribute to the lowering of the body temperature.

Common causes of burns

These include:

- Spillages in the kitchen, including water and oil
- Steam
- Hot stoves
- Hot metal surfaces such as radiators and wood stoves
- Candles or fires

- Electric heating pads
- Heat lamps
- Hot air dryers
- Hot semi-liquids (such as tar)
- Exposed electrical wires
- Household cleaning products and chemicals

4.3 Types of burns and recommended treatment

Burns may be caused in different ways, and these have different names.



Treatment for the type of burn may vary.

Contact burns

Contact burns are caused by direct contact with open flames, hot liquids, hot surfaces, and sunburn. They are very painful, appear hard and dry, and can vary in severity, although they are usually second or third degree. The symptoms usually take 24-48 hours to appear, and may be hidden by the animal's fur.

If the burn is caused by flame or an appliance, extinguish the flame or turn off the appliance first.

The ideal treatment is to soak it in cool water for 5-10 minutes.

Dependent on your pet and the location of the injury, this may not be possible. Running cool water over the burn or applying a clean towel dipped in cold water as a compress are alternatives. Be careful not to burst any blisters. If necessary, muzzle your pet to avoid being bitten.

Electrical burns

The most common cause of electrical burns is pets chewing on live electric cables. For this reason, electrical burns are most commonly seen in the mouth area, including the lips, tongue, gums, and palate. It is also the reason that dogs, especially puppies, are most likely to suffer an electrical burn.

Electrical burns can be identified by a main area of necrosis (dead tissue), surrounded by a wider area of tissue damage. The size of the area of dead tissue will depend upon the severity of the burn.

Extra care must be taken when going to the aid of a pet that has suffered an electrical burn. The animal may still be in contact with the live wire, and touching them would result in a shock to the owner.

The owner should immediately switch off the current or, if not possible, find a non-conductive item, such as a broomstick, to move the cable away from the pet.

As an electric shock can cause significant harm, and may even be fatal, owners should begin by checking their pet's breathing and heartbeat. Try to drop some cool water into your dog's mouth before wrapping them in a blanket and taking them immediately to the vet.

Chemical burns

A pet may suffer chemical burns if it comes into contact with a corrosive substance. They are usually categorised as second or third degree burns, with third degree the most common.

As chemical burns are often necrotic (leading to tissue death), and erosive in nature, it may take up to 48 hours for the burn to fully develop. Where a pet has thick or long hair, it may be difficult to spot the injury.

It is important to try to ascertain what chemical has caused the burn. Burns caused by an acid can be treated with a

solution of baking soda. A vinegar dilution can be used for alkaline burns.

Begin treatment by flushing the area with warm water. It is a sensible precaution to also wash around the burn. If the chemical that caused the burn is a dry substance, make sure that all of it is carefully brushed away, and disposed of. Be careful to ensure that you protect both your eyes, nose and mouth, and those of your pet.

Do not apply ice, butter, or oil to the wound. If your pet needs veterinary attention, try to take the chemical's container with you.

Sunburn

It may seem odd that creatures covered in fur can suffer sunburn, but it is not unusual in dogs that have certain characteristics: dogs with white fur, as they usually have fair skin underneath; dogs with thin hair, or ones that have had their coats shorn; and hairless breeds. Certain areas of animals are vulnerable to burn, such as noses, especially if they are pink, ears, and underneath the belly.

As with humans, sunburn is caused by prolonged exposure to the sun. While painful, it is usually classed as first degree, and is not life threatening. Owners may not spot it, but it does usually heal quickly.

Owners can take preventative steps to minimise the likelihood of sunburn, by keeping their pets away from exposure to sunlight.

Sun screen is available for dogs. If the sun is strong, then owners can apply pet friendly sunscreen, which should contain PABA (Para-amino-benzoic acid), but not zinc. The cream should be liberally applied to vulnerable areas.

Radiation burns

Radiation burns are very rare, but may be suffered by animals going through radiation therapy for certain cancers. The

tissue damage caused by radiation can slow down wound healing. Such burns may be classed in severity anywhere from first to fourth degree.

Radiation burns may not be visible to the eye, but may be indicated by changes in your pet's behaviour.

A bad odour may become apparent, caused by necrotic fluid. This may require debridement, which often reveals a deeper wound beneath that is likely to require extended care and attention.

Activity 1

Estimated time: 15 minutes

What are the different types and causes of burns?

Can you remember the appropriate treatments?

Why do you think that different types of burns require different treatment methods?

4.4 Smoke inhalation

If your pet is exposed to a fire, he may suffer from smoke inhalation.



Smoke inhalation affects the respiratory system, and can damage the respiratory tract. In addition, it can result in carbon monoxide toxicity, known as hypoxia. Carbon monoxide competes with oxygen for space in red blood cells, reducing the oxygen in the pet's body.

In addition to normal fires, your pet can be exposed to enough smoke to harm them through inhaling noxious fumes from burning rubber, plastic, or other synthetic substances. These substances can release carbon monoxide and dioxide; particulate matter; and cyanide, all of which can cause lung damage.

Signs that can indicate smoke inhalation include:

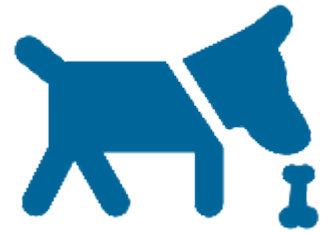
- Breathlessness or open-mouthed breathing (especially in cats)
- Swelling, burns, or inflammation of the eyes, mouth or skin
- Visible skin or ocular burns
- Weakness or lethargy, especially when walking
- Distinct odour of smoke in the fur or on the skin
- Squinting
- Seizures
- Foaming at the mouth

The first action an owner should take is to remove the pet from the situation and get them into clean air. A wet towel wrapped around the eyes and nose can help to reduce the inhalation of noxious substances, while placing them near to a humidifier can help to increase moisture levels in the lungs.

Smoke and carbon monoxide detectors will help to ensure that everyone in the household gets out safely in the event of an emergency. Knowing where your pets like to hide when they are frightened and need comforting is also useful, as pets often become very scared of fire and smoke. Being able to locate them quickly will speed up the evacuation.

4.5 Choking

Pets can choke on a number of common items.



These include bits of toys, bones, balls that are too small, or any foreign object that they may pick up. Choking happens when the object becomes lodged in the respiratory channel. It is a serious emergency and pet owners need to react immediately.

The following signs may indicate that your pet is choking:

- Sudden difficulty in breathing
- Pawing at the mouth
- Rubbing their faces on the ground
- Bulging eyes
- Bluish colour of the lips and tongue
- Making retching, gagging or choking sounds
- Agitation and distress

If you can lift your pet

If the owner is able to physically lift the pet, they may try the following methods to dislodge the obstruction, in this order:

- Check to see if you can see the object. If you can, use a pair of tweezers to reach into the throat and pull it out carefully and gently. You may need to use a penlight for clearer visibility. If you cannot see an object, do not put anything in the throat, as this can cause more damage, or push the obstruction further down the windpipe.
- Hold the dog in a sitting or standing position and give five sharp blows on the back between the shoulder

blades. Now, check the mouth again and sweep your fingers from side to side to see if the object has been dislodged.

- Place two fingers under the Adam's apple of the animal and pull upward gently in order to dislodge the object (this process is called 'milking'). This is the best option for something rounded, such as a small ball or rounded rawhide chew.
- Pull the dog toward you so that his spine is resting on your chest. Place both hands under the waistline of your pet, under the last rib, and clench your hands together to form a fist. Now perform what is known as 'abdominal thrusts' or Heimlich manoeuvre by pulling your fist in and upward about five times, using quick and firm movements. This method should be used only when necessary, as it can cause trauma to the ribs.
- If the object is still not dislodged, lift your dog and hang him with his head pointed downwards. Check the mouth again to see if the offending object has been dislodged.

If you cannot lift your pet

If you have a larger dog, you may not be able to lift them.

If this is the case, you can follow these steps:

- Place your dog in a standing position. Stand behind the dog so that you are bending over them and wrap your hands under his ribcage. Make a fist with one hand and wrap your other hand over the fist.
- Give five sharp abdominal thrusts to the dog, as described above. Sweep your fingers in the dog's mouth to check if the object has been dislodged. If the object is still not dislodged, then follow the next step.
- Place your hands behind the dog's hind legs and raise

him so that his head hangs down towards the floor. Again, sweep your fingers from side to side in the mouth, checking to see if the object has been dislodged.

- Hold your dog in a standing position (you may require two people to execute this step) and give five sharp blows between the shoulder blades.
- If the pet is unconscious, lay it on its side, with the legs pointing towards you. Place both hands flat, one on top of the other, palms down, just below the last rib. With a firm movement, push downwards five times.

Whatever the size of the dog, repeat the above relevant steps until the item is dislodged. Once it is removed, perform a check known as **ABC** – airways, breathing, circulation. This means checking that the animal is breathing and, if not, checking for a pulse. If your animal is unresponsive, you may need to perform CPR, which is covered in detail later in this module.

It is always best to consult a vet once the immediate danger is over, as choking can cause trauma to the throat and chest. The cause of the blockage should be taken with you to the consultation.

4.6 Shock

Shock is a medical condition caused by insufficient blood flow and oxygen to vital organs.



Without adequate blood flow and volume, the heart cannot continue beating, and the organs will be damaged. When shock

occurs, the body attempts to manage it by restricting the blood vessels (to reduce fluid waste), making the heart beat faster, and reducing urine output. The body will continue to react this way unless treated, and it is considered a life-threatening condition.

Common causes of shock include:

- Trauma caused by accidents, such as being hit by a car
- Fights with other dog
- Choking
- Allergic reactions to food, insect stings, etc., called 'anaphylactic shock.'
- The onset of life threatening infections, also known as 'septic shock'
- Damage to the nervous system, known as 'neurogenic shock'
- Prolonged diarrhoea and vomiting and consequent dehydration, leading to low blood volume, which is referred to as 'hypoglycaemic shock'

Signs and symptoms of shock

The following signs can indicate the early stages of shock:

- Rapid heart beat
- Anxious or agitated
- Bright red gums
- Shallow breathing
- Pulse is still easy to find

Middle stages of shock

These signs indicate the middle stages of shock:

- Heartbeat rises further
- Gums turn pale or blue
- Pulse becomes difficult to find
- Dog sinks into lethargy, seems weak
- Respiration usually becomes rapid and shallow (although

it may remain normal)

- Low rectal temperature (however, it may elevate or remain unchanged)

Late stages of shock

These signs indicate the late stages of shock:

- Gums seem almost white or may be mottled
- Heart rate normally elevates or appears irregular, but may remain normal or below normal as the dog's heart muscle starts to fail
- A weak pulse, difficult, if not impossible, to locate
- Change in respiration: may be slow and shallow or rapid and deep
- The eyes appear to glaze over and become unfocused
- The dog slips from lethargy to stupor to coma
- Rectal temperature drops to a critical low (below 99 degrees Fahrenheit / 32 degrees Celsius)

How to administer first aid for shock

Follow these steps:

- Position the dog so that the head is slightly lower than the rest of the body. This will facilitate blood flow.
- Keep the dog as quiet and relaxed as possible.
- Check the airways for foreign objects, blood, mucus or vomit, and clear if necessary
- Stop the bleeding, using the techniques described in Module 3
- Cover the pet in a blanket to prevent heat loss from the body
- If the dog is not breathing, administer artificial respiration (described later in the module)
- If there is no heartbeat, administer CPR
- Take your pet to the vet as soon as possible

What not to do

There are a number of things you should not do, as it can delay recovery.

These are listed as follows:

- Do not allow the dog to move around. Unnecessary movement can increase internal bleeding, and the movement will cause blood flow to the muscles, leading to a loss of valuable body energy. This can prove fatal to a pet who is suffering from shock.
- Avoid the use of a heating pad, as it could cause burns. It could also result in dilation of blood vessels, which would lead to increased blood flow from an already weakened cardiovascular system.
- Do not allow the dog to have water or food. These could cause asphyxiation (lack of oxygen supply), which again could prove fatal.
- Do not administer any medication, unless advised to do so by your vet.
- Use a muzzle only if absolutely necessary, as this could impair breathing.

Fact



The ASSVAP stands for the Association of Scientific Study of Veterinary Practices. It is the leading international association for all animal therapists, e.g. physiotherapists, osteopaths, and hydrotherapists. Their role is to reinforce a scientific approach to animal treatment and welfare.

Source: assvap.com

4.7 Artificial Respiration and CPR (Cardiopulmonary Resuscitation)

Artificial respiration is the act of assisting your pet to breathe, or stimulating its breathing.

CPR

It is also known as mouth-to-mouth resuscitation.

A range of incidents may cause your pet to stop breathing including accidents, injuries, choking, and drowning. It usually happens before cardiac arrest, as the lack of oxygen causes heart failure, leading to death. In the absence of a

heartbeat, chest compressions must be administered to keep blood flowing and the heart pumping.

CPR or Cardiopulmonary Respiration is the administration of chest compressions and artificial respiration in tandem with each other. Timely application of CPR has the potential to save your pet's life.

Before beginning artificial respiration or CPR, undertake the ABC check:

- **Airways** – use your fingers to check for obstructions in the windpipe. For long-nosed dogs, a torch may be needed.
- **Breathing** – check for the rise and fall of the chest.
- **Circulation** – check for pulse or heartbeat.

4.8 Artificial respiration

If your pet has a heartbeat but is not breathing, artificial respiration, also known as rescue breathing, should be performed.

Use this method:

- Lay your pet on a firm, flat surface, preferably on its right side.
- Lift the chin so that the throat is straightened upward. Check the airway to verify that it is clear of foreign objects. Sweep your fingers, very gently, from side to side inside his mouth to feel for mucous, blood or foreign objects. Remove if there is anything; remove it using your fingers, tweezers or pliers.
- Ensure that breathing has indeed stopped by watching the ribs, or placing your palms on the side of them to feel for movement. Alternatively, feel for breath on your hand or face. Inadequate oxygen supply may result in the appearance of bluish gums.

- If there is no breathing, feel for a pulse in the femoral artery, as described in Module 3. If you are unable to detect a pulse within 10-15 seconds, begin CPR, as described in the following section. If there is a pulse, complete the following steps.
- Keeping the chin lifted so that the throat is straightened, close the mouth tightly shut so that the tongue is inside. Leaning down to the dog, cover the nose with your mouth, inhale, then blow slowly and softly into its nose as you exhale. Blow just hard enough to cause the chest to rise. Larger dogs will require you to breathe harder.
- Wait until the air has been expelled and the chest has deflated before you blow again.
- Administer gentle breaths roughly every three seconds so that you blow 20 breaths every minute. Continue to do this until the dog is able to breathe on its own.
- Make sure that you continue to check for a heartbeat.

When administering artificial respiration, owners should carefully monitor how much the chest rises. If it inflates too much, it can cause damage. If the chest does not rise, there may be a blockage in the windpipe.

4.9 Administration of CPR

CPR should be administered only if there is no heartbeat, as it can cause trauma to the chest and ribs.



CPR is designed to keep blood moving around the body, so that

the brain and vital organs continue to receive oxygen. It is far easier to perform if there are two people. Where there are two people, one should provide artificial respiration, while the other performs chest compressions.

CPR for medium to large animals (over 30 pounds)

Technique is as follows:

- Lay the animal on its right side on a firm, flat surface. Position yourself behind the pet with their legs pointing away from you.
- Place one hand over the widest part of the rib cage but not over the heart. This will be slightly behind the level of the dog's elbow. Place your other hand on top, with fingers interlocked or cupped. Your elbows should be straight and keep your body over the pet for added power.
- Push down firmly, using your entire top half. The speed should be 100-120 compressions per minute, or around the tempo of the Bee Gees' hit *Staying Alive*. The compressions should go to a depth of one third to one half of the chest.
- Administer thirty chest compressions, and then give two rescue breaths as above.
- When administering breaths, ensure that the head and neck are still straight and extended. Observe to see if you are able to notice the chest rising and falling. If not, check for blockages again.
- Continue this pattern, checking for signs of life every two minutes.

CPR for smaller animals

The technique for administering CPR to smaller animals is slightly different:

- Place the animal on a flat, firm surface on its right side, and position yourself behind them.

- Place one hand underneath the dog, and one hand on top; around the chest area. For puppies and kittens, wrap your hands around the ribs, with the thumbs on top.
- Now squeeze both hands, pressing down to about one inch. Squeeze and release in a rhythmic pattern at a speed of 100-120 compressions per minute, and perform thirty chest compressions followed by two rescue breaths, as for larger animals.
- Continue, checking for signs of life every two minutes.

Any pets that have required resuscitation must be taken to the vet's for a check-up.

Activity 2

Estimated time: 15 minutes

Detail how to undertake artificial respiration and CPR, including the different methods used for different animal sizes.

If the animal has a pulse, why should CPR never be used?

Why are different methods used for different animal sizes?

4.10 Understanding how your pet communicates to help identify potential problems

It is easy to dismiss unusually poor behaviour as naughtiness.



However, it can be a sign that your animal is suffering from something that requires medical attention. Knowing your pet and their normal personality and characteristics helps you to form a closer bond, and identify when there may be a problem.

Simple things, such as a change in facial expressions, body posture, physical responses, eating, or toileting can indicate the onset of medical problems.

For example

If your naturally boisterous Labrador retriever suddenly becomes quiet and lethargic, you may need to take a closer look.

The following changes in behaviour can indicate underlying problems:

Aggressive behaviour

Pain and discomfort can lead to aggression.

For example

Your pet is unable to get away from a younger animal that wants to play, or because they are anxious or nervous about being handled or moved.

This is particularly likely where the pain is ongoing and constant, such as arthritis, or undiagnosed dental problems.

Changes in toileting habits

Pets that have been fully housetrained and clean for years may suddenly begin having accidents in the house. Conditions that cause mobility problems, such as arthritis or hip dysplasia, can result in an inability to reach their toileting area quickly enough. Rectal muscles can become weak, leading to accidental defecation when trying to stand up. Bowel disease, hormonal incontinence, or diabetes can also cause problems with controlling bladder or bowel movements. Kidney or liver problems, which can cause a build-up of toxins, may change frequency.

Owners should also observe their pet's posture when they are

toileting. Some animals have peculiar methods normally

For example

Some female dogs will also raise a leg when urinating. So understanding what is normal for your pet, is important. Sudden changes may indicate a muscular or skeletal problem.

Decrease in response to sights, sounds and stimuli

This could indicate a problem with eyesight or hearing, which is frequent in older animals as it is in humans.

Increase in barking, howling or growling

As dogs are unable to explain that there is a problem, they may try to communicate by becoming more vocal than usual. If they are unable to move freely, they may indicate this by barking or howling, to attract their owner's attention and try to summon them.

Nocturnal restlessness or pacing

A need to toilet, pain, or a loss of cognitive function (such as dementia), can cause pets to become restless at night. Other reasons may include appetite changes, loss of sensory perception, or neurological problems.

Assignment

Treatment of burns and choking

Time: 30+ minutes

Hopefully, you took in as much of the information in this module as possible. To find out how well you have done, complete the following worksheet.

Download the worksheet below and complete.

[Download Worksheet \(PDF\)](#)

Module Summary

Pets can be vulnerable to household accidents. Knowing how to respond and treat common problems, such as burns, choking, shock, and a lack of breathing and heartbeat, can make a real difference to the outcome.

Being aware of the causes of such problems can help owners to prevent them from happening.

Understanding how to treat the problem immediately can prevent further issues, such as infections, and shock.

Many of incident types detailed in this module can lead to pets going into shock. Shock is a dangerous condition that can easily lead to unconsciousness and death.

Knowing how to perform artificial respiration and CPR may save your pet's life, even when the situation can seem hopeless.

Behaviour can be a good indicator of the health of the pet. Owners should know how their pets normally behave, and be able to spot when their character or normal routines alter.

Any changes should be investigated, to ascertain if physical discomfort, or physiological or cognitive issues are the cause.

[Tweet "I just completed Module 4 of the Pet First Aid Course"]

Module 5 : Emergency Pet Handling and Restraint Procedures

In this module you will learn:

- Understanding how to handle an emergency, and safely approach an injured animal
- Muzzles, and tools and techniques for physical restraining aggressive pets
- Lifting and transporting injured dogs
- Environmental and food allergies, and how to treat and manage them
- First aid treatment of heatstroke in dogs

5.1 Introduction

It is important to be familiar with how to handle an emergency situation involving your pet.



When an emergency occurs, owners should stay calm and assess the situation before taking action. Even the gentlest-natured pets can become aggressive when it is in pain or is frightened. Owners should be cautious about approaching any injured animal, even their own, to ensure their own safety. In some cases, it may be necessary to restrain the pet so that it can be treated safely.

When a pet is injured, they may need to be lifted and transported. Knowing how to do this correctly will help to

prevent further injury until veterinary treatment can be obtained.

Just as with humans, pets can suffer from allergies. These can be caused by a wide range of factors, from pollen, to household cleaning products, to food. Allergies can cause your pet considerable discomfort, so need to be identified. Food allergies can be more difficult to identify but, with patience, they can be pinpointed so that the triggers can be removed from their diet.

In hot weather, animals can overheat and experience heatstroke. Dogs are particularly vulnerable, as their physiology makes it difficult for them to lose heat. Heatstroke can easily be fatal, so owners need to be able to recognise the signs and react quickly.

5.2 Assessing emergency situations

Remaining calm is key to handling an emergency situation effectively and efficiently.



This can be difficult, but taking a deep breath, grounding yourself in your surroundings, and speaking to yourself calmly all help. However serious the situation, do not be tempted to rush in without thinking, or give in to panic, as this will cloud your ability to think clearly. Take deep breaths and quiet your mind.

These simple steps will assist you in making a detailed visual assessment of the scene in front of you, and should take no more than twenty seconds.

Ask yourself the following:

- What has happened? Look for clues that will help you identify the exact nature of the emergency. Could your pet have been in an accident? Could they have fallen? Have they been in a fight or attacked by another animal? Might they have ingested or been in contact with hazardous chemicals? It is important to understand the nature of the emergency that you are dealing with.
- Am I safe? Owners should assess the wider situation, and whether they could be in danger themselves. If you are on the roadside; if there is an aggressive animal nearby; or if your pet has been injured by electricity or chemicals, you should consider if you are in danger. Failure to do so can result in harm to you and further harm to your pet.
- Based on your knowledge, particularly from the previous modules, what is the best way to proceed?

Once you have determined the answers to the above questions, consider the following:

- Is it possible to reach your pet safely and easily? Will approaching the pet place you in danger?
- What are the hazards you are facing, and is it possible to overcome these? Common hazards can include fire; rushing water or flooding; unstable surfaces; fallen objects; chemicals; loose debris; or electrical cords.
- Injured or sick pets can be aggressive due to pain or fear. Assess whether it is safe to handle them, especially if it is not an animal that you are familiar with. In this case, you may want to call for help, for example from the RSPCA.

If you observe that the pet has a hazardous or unidentified substance on it, do not consider touching them without wearing latex gloves. Similarly, if there is blood, try to ensure that you are wearing gloves before contact. Although there are very few animal diseases that can be transmitted to humans, the

blood may be mixed with other substances.

Wherever the incident has happened, if possible, seek assistance. There may be witnesses to the cause and events, and having someone else to help will make it easier to handle and treat the animal.

5.3 How to approach an injured pet

Pets can behave very differently from their normal selves when they are experiencing pain, trauma or shock.



While a gentle hand placed on the animal can provide both restraint and comfort to them, it should not be attempted if the animal is exhibiting any signs of aggression, or if you have concerns that they may do.

It is important to keep yourself safe while trying to help the pet as, if you get bitten or are attacked, then you will also need medical attention, and will not be able to respond as effectively to the emergency.

The following tips will help when approaching an injured pet:

- Make sure that you move slowly and quietly towards the animal. Talk gently to them. If an animal is happy to approach you, they are less likely to react aggressively. Try to persuade them to approach you by calling them and patting your knee or the ground.
- Do not reach over their heads, as this can be perceived as threatening. Instead, allow the dog to sniff your hand (held in a fist to prevent fingers being bitten), or reach under the chin.
- Approach the dog from a sideways angle, making sure they

can see you so that you do not startle them. Avoid eye contact.

- Keep your face away from the animal's mouth.
- Do not attempt to hug it, as you are unaware of the nature and location of injuries, or whether they may react aggressively.
- While getting down to their level will make you less intimidating, do not sit on the floor, as this will reduce your ability to move out of reach if the animal becomes aggressive. Crouching or kneeling are better options.
- Be alert and observant to any sounds that the pet makes, and their physical condition. This information could be relevant when seeking medical attention.

It is well known that animals pick up on fear, excitement or aggression. Reacting calmly will encourage the animal to remain calm and trusting.

Try to ensure that you have the emergency kit with you when you approach them, so that you do not have to return with it, requiring you to approach the animal again.

When assessing if the pet may become aggressive, these are common signs:

- Growling and snarling
- Hair standing up on the body, known as the hackles being raised
- Ears pulled straight back, laid flat against the head
- Tail tucked between the legs, head down, and intense staring

Be aware that a mother with their young can be particularly aggressive due to their instinct to protect their babies. Where possible, they should be separated from them, preferably where they cannot see what is happening.

5.4 Muzzles for injured pets

If a pet is injured or sick, it may need to be restrained for both your protection and theirs.



Muzzling is a simple form of restraint. As well as to prevent you being hurt by an aggressive animal, it also prevents them licking off ointments or lotions, or biting off bandages.

You will, no doubt, be familiar with muzzles for dogs, which restrict the movement of the jaw. Module 3 includes instructions for how to make a homemade muzzle. Muzzles for cats are a little different, as they cover the eyes, to reduce visual stimulation. Cats will usually become calm after they are muzzled.

Whatever type of animal you are handling, do not use muzzles in the following situations:

- Chest injuries
- Breathing difficulties
- Choking
- Vomiting or retching
- Where the pet is unconscious

Muzzling is not recommended for short-nosed dog breeds, such as Pekingese or bulldogs, and they should never be muzzled, as it can interfere with their breathing. Puppies and other young animals should be restrained very gently.

While a muzzle should be tight enough to prevent biting, it should be loose enough to allow the animal to pant, especially dogs that use panting to control their body temperature.

Muzzles should not be used for any extended period of time. Where there is an ongoing need a medical cone should be used.

For example

Following an operation.

5.5 Equipment required for physical restraint

Preparation is always better than waiting until an emergency occurs.



Collars not only provide a means of identification and something to clip a lead to, they can also help an owner to restrain their dog if it is being uncooperative.

Collars should be fitted with care. Too loose, and the dog will be able to slip out of it and escape. Too tight, and it can restrict breathing and cut into the neck and throat. A suitable collar should be accompanied by an appropriate lead. Larger dogs will require thicker, stronger leads, and smaller dogs, weaker, thinner ones.

If your dog is reluctant to move, try a quick tug on the lead to begin with, but do not pull too forcibly. If the dog refuses to walk, then soothe it and try again.

For cats, a figure of eight harness can be useful. If this is a method you want to utilise, you will need to familiarise them with it beforehand in normal situations so that they do not panic when it is used in an emergency. Handling an aggressive cat can cause painful injuries to the owner. They have four sets of sharp claws and sharp teeth, and are happy

to use all of them.

If a cat is scratching and clawing, the best restraint technique is wrapping the cat in a blanket, coat, or pillowcase.

Wrap the chosen item around the cat, taking care to ensure that the paws are secured inside. Peel back the blanket so that the head is left free, and the cat is able to breathe freely. As a last resort, pet owners may need to use a net to restrain fractious and hissing cats.

5.6 How to lift a dog under 50lbs in weight

Sometimes, the pet may be injured so seriously that it is not able to walk at all.

under
50lbs

In this case, you may need to carry the pet. There are different techniques for lifting animals, dependent on their size.

This method is for dogs that may be carried relatively easily, up to around 50lbs:

- Put a lead on the dog and crouch down beside it. Do not attempt to lift a dog from a standing position.
- Place one arm gently under the dog's head, so that the dog's head is cradled on the elbow.
- Slide other arm under the dog's abdomen, bending it so that the fingers are under the front legs, the palm is up, and the hand is pointing forward. Now lift the dog slowly.

If the dog is seriously wounded, then owners should employ the following method:

- Place one arm under the dog's head, so that the dog's head is cradled on the elbow.
- Place the other arm around the dog's hind quarters so that is behind the knees, with the upper legs up against their body.
- Scoop the dog straight up.

5.7 How to lift a dog over 50lbs

Dogs that weigh more than 50lbs need to be lifted by two people.

over
50lbs

As well as the difficulty and the risk of the owner hurting themselves, larger dogs are not generally used to be lifted, and may struggle.

Follow these steps:

- Both people should crouch on the same side of the dog.
- One person places one arm under the chest, and the other over the neck, so that the arms circle the dog as far as possible.
- The second person should wrap one arm around the dog's hind quarters, with their other under the abdomen.
- They need to rise in unison, lifting the dog as evenly as possible.

5.8 How to transport an injured pet

Not knowing how to move and transport an injured pet correctly can result in further injury, and aggravate internal bleeding or other injuries.



The basics for moving an injured animal are:

- Handle the pet as little as possible and remember to be gentle.
- Keep movement and fidgeting to a minimum.
- As far as possible, pets should lie on their side. However, if the pet has a chest or lung injury, it may not be comfortable on its side. In this case, allow the pet to choose a position that feels comfortable for it.
- Do not apply pressure to the stomach.

It is also important to cover the pet with a blanket. As well as preventing heat loss, which can cause animals to go into shock, the blanket also provides comfort and has the added benefit that it can assist with moving the pet if necessary. This is especially true for larger dogs, where two people can carry it between them as a makeshift stretcher.

If the injury is spinal, minimising movement is especially important.

This method will help to prevent further injury during lifting and transportation:

- Find a strong flat surface, for example plywood, ironing board, window screen, blackboard, or sledge.
- Make the animal lie on its side, preferably their right side.
- Stand behind them, hold it by the scruff of the neck and the small of the back and slide it onto the board. Ensure that the movement does not twist the body and

that the head and neck remain straight.

- The pet must be restrained while lying on the board to minimise injury and pain. Strap it to the board. This can be done using bandage, tape, or sheets, as covered in Module 3. Softer materials are better. Be careful that you that pressure on the stomach is kept to the minimum possible.

If the pet is unconscious, take care to keep its head from flexing abnormally upward or downward. Such flexing may result in blood draining away from the brain, potentially causing further injury.

Owners should watch carefully for signs that the pet may vomit. Pets that have suffered serious head injuries can vomit even while unconscious, which carries a risk of them choking if it enters their windpipe or lungs. If they think that the animal will vomit, they should raise its hind legs to allow the vomit to escape.

Pet owners should take the precaution of having the number of their nearest 24-hour vets before an emergency occurs.

They should also ensure that they know how to get there. In an emergency, if there is time, call ahead to alert staff of the situation and ensure that a vet is on hand.

During transportation, if possible, smaller dogs and other pets should be put into a carrier to prevent them moving around necessarily and potentially injuring themselves. Larger dogs that cannot fit into a carrier should preferably be accompanied by someone in the back seat, to calm and restrain them. Despite the emergency situation, owners should drive as carefully as normal to help prevent accidents.

Activity 1

Estimated time: 15 minutes

Why is it important to assess the situation in an emergency before acting? What should you look for?

Why should you be careful when approaching an injured animal? How should you approach them?

What actions can you take to restrain an animal, if necessary?

5.9 Allergic reactions and treatment

If your dog is chewing and licking its feet constantly, or your cat frequently scratches its ears, they could be suffering from an allergic reaction.



Allergies are an overactive immune response to a triggering substance.

Allergens can be almost anything, and common ones include:

- Food
- Pollens
- Fleas
- Dust mites and other household pests
- Household cleaners and fresheners
- Insect bites and stings
- Drugs, such as antibiotics and skin creams

It can seem that there has been an increase in animals suffering from allergies. However, it is unclear if this is the case. Pets' health has never been taken so seriously as it is today, and so owners seek help more readily than ever

before when their pets seem ill. Medical advances mean that it is now possible to test for and identify allergies. It may also be that irresponsible breeding in some species has increased the rate of genetic problems

For example

German shepherds are prone to skin problems.

As with people, pets will react differently to different allergens.

Typical symptoms of allergies include:

- Itchy or irritated skin, eyes, nose, ears or paws
- Coughing or sneezing
- Ear infections
- Diarrhoea and vomiting
- Swelling
- Hives

Where the pet responds to the allergic reaction by scratching or chewing, there is a danger of infection, raised welts, or sores developing.

Fact



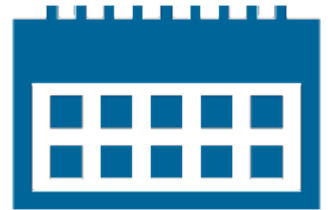
According to a pet research study conducted by Novartis, pets often feel down or miserable

during spring months due to environmental allergens such as pollen.

Source: Novartis

5.10 Types of allergies

Allergies are triggered by food or environmental factors.



If the symptoms seem intermittent, they are probably seasonal. If they continue throughout the year, they will be caused by food, or something in the environment that is around constantly.

Atopy

Atopy is a form of allergy that is triggered by environmental factors. They may be seasonal and can be worsened by environmental pollutants, such as pollen, mites, and moulds. Animals with allergies to tree pollen will suffer most in March and April, when it is most prevalent. Allergies to mites may be worse in the winter, when the dog spends more time indoors.

Often atopy presents as skin irritation, although reactions can also be respiratory.

Typical signs that your pet is suffering from atopy include:

- Chewing of the feet
- Rubbing the face on the carpet, or pawing at it
- Excessive scratching
- Persistent licking of the flanks or groin area
- Hair loss

- Greasy or flaky skin with an unpleasant odour
- Recurrent ear infections and inflammation
- Pinpoint facial scabbing in cats, and recurrent hotspots (raw, inflamed areas) on dogs
- Wheezing and respiratory problems

Contact dermatitis

Contact dermatitis is a relatively rare skin condition, and is caused by allergic reactions to things in the environment. Common causes are carpets, household cleaners, or contact with certain plants or saps.

This usually presents as:

- Intense scratching
- Raised, red sores on the more exposed parts of the body, such as the stomach, paws, and muzzle
- Hair loss

Hives (urticaria) and swelling (angioedema)

Some allergic reactions will present as hives or inflammation.

Hives typically appear as itchy, raised bumps, and can be spotted as the fur stands up over them.

Common causes of hives are:

- Stings and insect bites
- Food allergies
- Reactions to chemicals, such as insecticides used to treat grass
- Plants such as poison ivy and oak
- Vaccines, with the bordetella (kennel cough) or rabies most likely to trigger a reaction

Signs of urticaria usually occur within twenty minutes of exposure to the allergen.

Symptoms of urticaria typically include:

- Medium to large areas of redness and swelling, particularly on the face, stomach, and legs
- Swelling around the muzzle
- Swelling around the eyes, which can be severe enough to prevent the pet from opening them
- Excessive scratching
- Drooling, caused by a swollen muzzle

In very severe cases, the throat may begin to close, restricting the dog's breathing.

Anaphylactic shock

Fortunately rare, anaphylaxis is the swelling of the throat, causing the airways to close. It can be life threatening without prompt medical attention, and any pet that appears to be experiencing anaphylactic shock should be taken to the vet immediately, before cardiac failure occurs.

Anaphylaxis can be caused by a range of allergens, but most commonly by:

- Food
- Stings
- Medications such as antibiotics or vaccines

Symptoms of anaphylactic shock include:

- Vomiting
- Diarrhoea
- Loss of bladder and bowel control
- Fast heart rate but weak pulse
- Pale gums
- Cold limbs
- Facial swelling
- Breathing problems
- Shock
- Seizures

The only effective treatment for anaphylactic shock is an injection of epinephrine, which needs to be administered as

quickly as possible, preferably immediately.

For animals that have been diagnosed as suffering an anaphylactic episode, vets may prescribe an Epi-Pen. This is an auto-injecting syringe that contains a single dose of epinephrine. The vet may also recommend that you keep a stock of an antihistamine, such as Benadryl, at home.

Histamines are part of the immune response. Allergic reactions are caused by their over-response to a substance. Antihistamines block the receptors, reducing the response. Common antihistamines in the UK are diphenhydramine and cetirizine, which are found in most antihistamine treatments.

5.11 Seasonal allergies and treatment

Allergic reactions are produced by a dog's immune system, and the way his immune system functions is a result of both nature (his genetics) and nurture (his environment).



The symptoms of seasonal allergies can be summarised as possible:

- Watery or puffy eyes
- Runny nose
- Coughing and sneezing
- Itchiness, which may be intense. This may be identified through constant scratching or, in the case of cats, trying to rub against a vertical surface.
- A discharge near the eyes or ears that smells particularly unpleasant. This may be caused by scratching.
- Head shaking.
- Hair loss around the ears
- Redness in the eyes, paws, chin, anus, or gums

Owners can help their pets by taking a few simple steps:

- Wash your pet frequently in warm baths using a shampoo designed for pets with allergies. This will ease their skin irritation and remove allergens from the coat and skin.
- Wash their feet after they have been outside. This will help to avoid them walking allergens into the house.
- Keep your pet's favourite areas as free from allergens as possible by cleaning them frequently.
- Replace your household cleaners with ones that are more pet-friendly, and contain fewer harsh chemicals.
- Remove and avoid growing plants or trees in your garden that have pollen that trigger your pet's allergies.
- Reduce or eliminate grains and carbohydrates in their diet. These can increase inflammation.

There is some evidence that rubbing a small amount of coconut oil on a pet's skin can help to prevent skin problems. It is believed that this is due to the lauric acid it contains, which can suppress yeast growth. However, research is still being undertaken and pets can have allergies to coconut, as they can to anything else.

5.12 Food allergies

Food allergies occur in both dogs and cats.



Food intolerances and allergies may occur on their own, but often occur in conjunction with other allergies.

There is a difference between intolerance and allergies. If a

pet has an intolerance, they struggle to digest the food, but may be able to eat small amounts of the food without ill effect.

Allergies mean that the pet is unable to eat any amount of the food without suffering a reaction as the immune system identifies the food as a threat, and releases excessive amounts of antibodies to counteract it.

As symptoms can be varied, it can be difficult to identify that the allergy is related to food rather than environmental factors.

Symptoms that food allergies have in common with environmental allergies are:

- Persistent scratching
- Hair loss
- Red, inflamed skin
- Recurrent ear problems

More easily identifiable symptoms of food allergies are:

- Flatulence
- Vomiting
- Diarrhoea, particularly if it continues for a period of time

In both cases, the best treatment is to remove the triggering food from their diet. Identifying the triggering food can be difficult, and it may be that the only way to identify it is to undertake an elimination diet. This is where the pet's main food is replaced with something that it has not eaten before, until their condition improves.

Once the animal's digestive system seems to have recovered, foods are reintroduced one by one to see if they have a reaction. The process can take months, but it allows specific problem foods to be identified.

There are a number of foods that commonly trigger allergic

reactions. For dogs these are dairy, chicken, beef, lamb, fish, wheat, and soy.

Proteins feature heavily in this list, as some dogs lack the enzyme required to break them down. Another common problem can be food additives. Many popular pet foods contain high quantities of these ingredients. When a problem is identified, owners should consider replacing their pet's normal food with a hypoallergenic alternative.

These should meet the following criteria:

- Contain one type of protein and one type of carbohydrate, which has not formed part of the pet's diet previously. With the growth of the pet food market and the introduction of less traditional ingredients such as salmon, this has become more difficult. However, hypoallergenic food may contain proteins from duck or bison to combat this. Proteins should not make up more than 20 percent of the food.
- Contain hydrolysed proteins, which are small 'pre-digested' protein fragments, which are highly digestible and have low allergenicity.
- It should be free of food additives.
- The food should contain minimal or zero levels of vasoactive amines (which release histamines).

In addition to the allergens already listed, owners should keep dogs with food allergies away from:

- Pigs' ears and cow hooves
- Rawhide
- Flavoured toothpaste
- Flavoured medications (such as heartworm preventatives)
- Flavoured plastic toys

To ensure that your allergy-prone pet stays well, you should follow these precautions:

Keep your pet on a lead when they are outside so that they

cannot pick up discarded food or animal excrement.

Shut them out of the room while you are eating, and clean up afterwards, so that they are unable to look for dropped food. Keep them away from cat litter boxes, as cat excrement can be particularly appealing to dogs.

Some foods should never be fed to dogs.

These include:

- Bones from chicken or other poultry, or fish bones. These fine bones can easily splinter and lacerate the digestive tract. Cooked bones should never be given to dogs for the same reason.
- Chocolate, coffee, and caffeine, which can contain methylxanthines, which can cause vomiting and diarrhoea, panting, excessive thirst and urination, hyperactivity, abnormal heart rhythm, tremors, seizures and even death.
- Cat food, as it is very high in protein.
- Citrus oil extracts, which can cause vomiting.
- Grapes, currants, raisins and sultanas, which can cause kidney damage.
- Mushrooms, which contain toxins that can lead to organ failure, shock, and death.
- Nuts, especially macadamia nuts. These have high levels of oils and fats that can cause stomach upsets and pancreatitis. Macadamia nuts can cause tremors and hypothermia.
- Onions, garlic and chives.
- Pits from soft fruits, which can cause obstructions in the digestive tracts.
- Products including the sweetener xylitol, which can cause hypoglycaemia and toxicosis.
- Raw eggs contain avidin, which is known to reduce the levels of biotin (a type of vitamin B12). This can result in skin and hair problems, and neurological issues.
- Raw or undercooked meat, which can contain salmonella

and E. Coli.

- Tuna, which contains higher levels of mercury.
- Yeast dough, which can cause severe gas, and can cause the stomach to twist.

Activity 2

Estimated time: 10 minutes

Allergies can cause animals real discomfort. What are the different types of allergies and their typical symptoms?

What can be done to reduce both exposure to the triggers, and to treat the symptoms?

5.13 Treating heatstroke in dogs

Dogs are unable to easily control their body temperature.



Only two parts of a dog's body can lose heat rapidly: the tongue and the paws. This is why it is so easy for dogs to overheat

For example

When in hot cars.

Exercise in hot weather or lying directly in strong sunlight can also cause heatstroke. For cats, the greatest danger is from sleeping in hot garages, sheds, or attics.

Heatstroke is when the body's core temperature rises above 104-106 degrees Fahrenheit (40-41 degrees Celsius). As you may remember from Module 3, a dog's normal temperature is

100-102.5 degrees Fahrenheit (37.5-39 degrees Celsius).

Dogs with short or light coloured fur are more likely to suffer heatstroke. Short-nosed breeds are less able to cool themselves down through panting, and so are more vulnerable.

Owners should not be tempted to clip their dog's fur short in the summer.

Far from keeping them cooler, it can actually make them more prone to overheating, as fur acts as an insulator against heat as well as the cold.

Signs of heatstroke include:

- Rapid panting and bright red tongue
- Red, pale gums with thick, sticky saliva
- Weakness and dizziness
- Vomiting (sometimes with blood) and diarrhoea
- Shock and coma

Treatment

In the case of heatstroke, owners must lower the animal's body temperature. This must be done slowly, as cooling too quickly can cause seizures.

The following response should be followed:

- Remove the pet from the hot area.
- Put the pet in the bath and run cool (not cold) water over them, especially the back of the head and neck. Allow the water to fill the bath, and ensure that their head remains up to prevent aspiration pneumonia.
- If you are unable to get your pet into a bath, use a garden hose, or apply a towel soaked in cool water to the abdomen and under the hind legs. Garden hoses should be used carefully, as the water can be very cold.
- Apply a cold pack to the dog's head, which will help to lower their temperature. You can use a pack of frozen vegetables.

- Massage the pet's legs to improve circulation and reduce the risk of shock.
- Check the rectal temperature every five minutes, and stop applying the cooling measures once the temperature is 103 degrees Fahrenheit.
- Dry the pet and feed them some children's hydrating solution. Give him free access to drinking water, which you can add a pinch of salt to, to replace lost minerals. You can also give them ice cubes to lick.
- Check for shock.
- Take the pet to the vet as soon as possible, keeping the car as cold as possible.

Be aware that dogs that have suffered heatstroke once are more vulnerable to further attacks.

Assignment

Emergency Pet Handling and Restraint Procedures

Time: 30+ minutes

Hopefully, you took in as much of the information in this module as possible. To find out how well you have done, complete the following worksheet.

Download the worksheet below and complete.

[Download Worksheet \(PDF\)](#)

Module Summary

It is easy to panic in an emergency, but owners should make a concerted effort to stay calm. Before doing anything, they should assess the situation for any dangers, and to decide what treatment would be appropriate.

Injured or frightened animals can be aggressive, and should be approached with caution, even if it is a pet the owner knows well. If necessary, physical restraints can be used to ensure safety. Knowing how to lift and transport a hurt animal is important to avoid causing further injury to them.

Many pets suffer from allergies, which can cause distress and discomfort. Owners should be able to recognise the signs of allergic reactions, and make attempts to identify the cause. Knowing what the cause is enables you to minimise the pet's contact with the trigger. It can be harder to identify food allergies, and the process may take some time.

Dogs are at particular risk of heatstroke, which can easily be fatal. Rapid identification and treatment of the problem is essential. Owners should familiarise themselves with the symptoms, and the procedure for cooling the animal in an emergency.

[Tweet "I just completed Module 5 of the Pet First Aid Course"]

Module 6 : Home Care and Treatment for Hypothermia, Drowning and Bites

In this module you will learn:

- Treating hypothermia
- Signs, symptoms and treatment of frostbite
- First aid and preventative care for drowning and near drowning
- Infection and abscesses
- Insect, snake bites and bee stings
- Bloat in dogs

6.1 Introduction

Because pets have fur coats, it is easy to assume that they are protected from the harsh effects of winter.



However, this is not true. While some breeds, such as huskies, St Bernard, and Malamutes were bred to grow thick coats that were suited to the cold environments they lived in, most types of dog were not. Hypothermia can be caused by prolonged exposure to wet or cold conditions, snow and sleet, and some need additional help to stay warm in cold weather.

Frostbite is another risk in cold weather. This very painful condition can, in extreme cases, result in the loss of limbs. Knowing the signs and how to respond promptly and effectively

can save pets with frostbite or hypothermia.

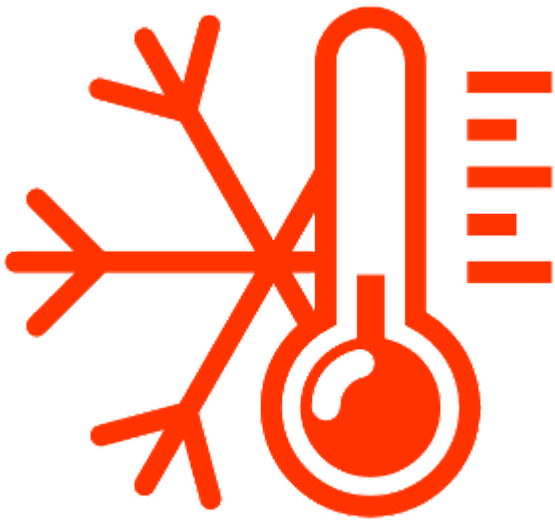
Dogs have a natural instinct to swim, and many enjoy it. However, pet owners should always be vigilant when around bodies of water, such as ponds, lakes, and swimming pools, as dogs can drown, or experience near-drowning. Near-drowning happens when water enters the lungs but the pet survives.

Even when a pet seems fine after an incident, if there is a suspicion that they have inhaled water, medical treatment should be sought. The signs of water inhalation may only appear a few days later, and will have already caused damage. Infection can lead to abscesses. Abscesses, or sacs of pus, dead skin, and white blood cells, are formed when bacteria festers under the skin, but is unable to escape. They are extremely painful and, if left untreated, can lead to a much more serious infection, such as sepsis. Abscesses can be the result of bites or scratches, and so any injuries from fighting must be taken seriously.

While in the UK there are few dangerous animals, insect bites and stings can be painful and irritating, and, in some cases, lead to dangerous conditions such as Lyme disease and heartworm. Owners should be aware of how to handle bites and stings from different insects. Adder bites are uncommon in the UK, but can still happen. While they rarely cause serious injury in humans, in dogs they can easily become fatal, and should be treated by a vet as soon as possible.

Bloat may sound harmless, but it is one of the most dangerous conditions that a dog can experience that is not related to an accident. There is nothing that an owner can do to treat the problem, and the only option is to rush the dog to the vet's.

Fact



Siberian huskies can withstand temperatures as cold as -60 degrees F (-51 degrees C).

Source: pets.thenest.com

6.2 Hypothermia

Despite the protection of fur, dogs, as well as other pets, are vulnerable to drops in body temperature in extremely cold weather conditions.



Known as hypothermia, this abnormal drop interferes with the functioning of the body. The cold body temperature disrupts the flow of blood, and can lead to organ failure and, eventually, death.

The severity of the effects of hypothermia, and the chances of full recovery, depend upon the extent to which the temperature drops. If the rectal temperature falls below 82 degrees Fahrenheit (28 degrees Celsius), it may be that normal body function is never regained. The treatment for hypothermia is the application of heat externally to raise the core temperature.

Causes and symptoms of hypothermia

Hypothermia is more commonly seen in dogs that are small or short-haired, and puppies and older dogs, as they are less able to retain heat. In these cases, using dog coats or clothes, and boots, can help prevent hypothermia occurring.

Common causes of hypothermia include:

- Prolonged exposure to cold, freezing conditions
- Submersion in cold water
- Wet fur or skin in colder weather
- Shock
- Anaesthesia
- Hypothyroidism
- Diseases affecting the hypothalamus

Symptoms of hypothermia:

- Shivering
- Lethargy and weakness
- Slow, weak pulse
- Difficulty breathing
- Gums may appear pale and bluish in colour
- Fixed and dilated pupils accompanied by stiff muscles
- Unconsciousness

First aid for pets suffering from hypothermia

For mild hypothermia (90-99 degrees Fahrenheit, or 32-35 degrees Celsius):

- Move the pet to a warm, dry area immediately. Lay them on a blanket, bed or other warm surface to prevent them having contact with cold floors.
- Place a blanket on the radiator or clothes dryer to warm them before wrapping your pet in them. Be careful not to overheat the blanket, to prevent burning.
- Apply an insulated heat pack (wrapped in a towel) to body areas which are prone to heat loss including the

head, neck and legs.

- If the pet is wet, use a hair dryer on the lowest setting.
- Offer them warm fluids to drink, sweetened with honey or sugar. Add two tablespoons to one cup of water.
- Check the body temperature every ten minutes. A temperature below 98 degrees Fahrenheit (35 degrees Celsius) requires professional attention. Once the temperature is above 100 degrees Fahrenheit, or 37.8 degrees Celsius, remove the heat packs.
- If the pet is observed to be mildly hypothermic, pet parents can give it a short, warm water bath. If your pet is going to be transported to the vet, do not bath them, as this will cause them to lose more body heat.

For moderate hypothermia (82-90 degrees Fahrenheit, or 28-32 degrees Celsius), in addition to the above, place hot water bottles or heat pads, wrapped in towels, on areas of the body with less fur

For example

The armpits or groin.

Fur can act as an insulator and prevent heat from reaching the body.

Pets with severe hypothermia (below 82 degrees Fahrenheit, or 28 degrees Celsius), may need immediate administration of intravenous warm fluids, warm water enemas, and oxygen. As the pet recovers and begins to warm up, they may experience pain and may also attempt to bite at the painful areas.

If the pet stops breathing before it reaches the vet, owners will need to administer CPR, as described in Module 3.

However, CPR is unlikely to be successful in certain circumstances:

- If the pet has been under water for a period of more than one hour

- There is a formation of ice in the airway
- The chest wall is stiff and does not respond to compression
- If the body core temperature has dipped below 60°F

Precautions when treating hypothermia

Take the following steps:

- Avoid placing hot items directly on the skin or fur. Make sure that they are wrapped in a towel or something similar.
- Any fluids given must be warm.
- Do not put a severely hypothermic dog animal in a warm bath.
- Do not administer any drugs; the liver and kidney functions are weakened, and so unable to process the medication. Toxins will accumulate in the body as it warms.
- Even if your pet seems to be beyond resuscitation, this may not be the case. Seek immediate medical attention, and it is possible that your pet could recover.

6.3 Frostbite

Even a thick coat of fur is sometimes not enough to stop frostbite.



Frostbite may appear alongside hypothermia, or may not, but is also caused by very cold temperatures. It usually affects the extremities of the body, such as toes, paws, ears, nose, tail, and scrotum. This is because, in cold weather, the body

protects its core temperature and vital organs by reducing the blood flow to the extremities, to prevent heat loss. When the blood vessels constrict, this lack of warm blood can cause the tissues to freeze and die. The severity of frostbite will vary dependent on the length of exposure.

Signs of frostbite

Frostbite itself can look very similar to a burn initially, before becoming black and brittle.

As obvious signs of frostbite may take several days to appear, other symptoms that can indicate frostbite include:

- Shivering or shaking (to try to generate heat)
- Ice on parts of the body
- A pale, grey, or bluish discolouration of the skin, caused by lack of blood circulation
- Pain when touched
- Coldness or brittleness in the area
- Swelling
- Blisters or skin ulcers
- Areas of blackened or dead skin
- A foul smell or pus discharge due to secondary, bacterial infections.

Blisters, ulcers, pain and swelling are typical signs of second degree frostbite. Third degree frostbite may be indicated by the swelling, scaling, or peeling of the skin accompanied by a red colour, after first aid treatment is provided. At this stage, there will be obvious demarcation between the discoloured and dead tissue, and the healthy tissue.

First aid for frostbite

Owners should consider muzzling their pet. This will prevent it licking the wound. Do not rub or massage the affected area as this can release toxins into the bloodstream.

Take the following steps:

- Move your pet to a warm, dry area. Do not treat the frostbitten area until you are able to do so, as the tissues may refreeze, which will cause more damage.
- If your dog has hypothermia or a depressed core body temperature, treat this first, as described above.
- Wash the affected area with water that has a temperature of 104-108 degrees Fahrenheit (40-42 degrees Celsius). If you do not have a thermometer, ensure that you are able to comfortably place your hand in the water. Water that is too hot could cause more injury. You may apply the water using compresses, or soak the affected area in a bowl of warm water.
- Pat dry with a warm towel, making sure that it is completely dry.
- Wrap the pet in a warm blanket or towels for transporting to the vet.

Important don'ts for treating frostbite

- Do not use a hair dryer or dry heat on the skin. This can burn and cause further injury.
- Do not give the dog any painkillers or other medication, unless advised by your vet.
- Do not overheat your car during the journey to the vet's.

6.4 Winter care for your dog

Prevention is better than cure.

These simple tips will help to ensure that your pet avoids painful and dangerous conditions:

- Do not allow your dog to spend too much time outdoors in freezing weather.
- If they are outside, put blankets or mats down so that they are not lying directly on the ground.

- Dress them in jumpers or coats, and consider buying them protective boots.
- Ensure that they have enough food. In cold weather, they will use more energy to stay warm.
- If your pet has sore paws, try washing them after walks, as chemicals used to thaw ice and snow may be irritating them. You can also use a paw balm to prevent them becoming dry and sore.
- Keep them out of winter storms.

Owners may wish to ensure that they are prepared for any severe weather.

They will require the following:

- A complete first aid kit, as detailed in Module 1.
- An adequate supply of dry and canned food.
- Torch and replacement batteries, kept in a safe, easily accessible place.
- Adequate supplies of any prescribed medications.
- Contact numbers at hand for your veterinary clinic, that of the closest clinic, and an after-hours clinic.
- Clean water.
- Clean litter trays and bedding for cats and smaller pets.

6.5 How to respond, and provide first aid for drowning and near drowning

While dogs have a natural swimming instinct, and many enjoy swimming, they can also drown.



If the dog survives it may experience near-drowning, which is when the pet becomes unconscious due to lack of oxygen, and their organs start to shut down.

Common causes of drowning include:

- Exhaustion
- Inability to climb out of the water, for example, due to steep bath sides
- Falling through ice and becoming trapped underneath
- Strong undercurrents
- Underwater obstructions
- Becoming trapped under a swimming pool cover

Puppies, older dogs, and certain breeds such as Pekingese, dachshunds, bulldogs and pugs, are more susceptible to drowning. Dogs who suffer from health conditions such as blindness, arthritis, and seizures are also more at risk.

First aid for drowning and near-drowning

The first step is to remove the animal from the water. This may not be easy, and should not be attempted if it will put you in danger too. This is particularly important if the situation involves thin ice or strong undercurrents.

If your pet is conscious, it may not be clear if it needs first aid.

Signs that it does are:

- Pale, colourless gums, eyelids, and skin
- Abdominal swelling
- Coughing
- Breathing problems
- Vomiting

If the pet is unconscious, urgent first aid is required.

Steps to follow:

- If the pet is small enough, hold it by its back legs, and give it 3-4 firm downward shakes. This is to drain the water from its lungs.
- If the pet is too large to pick up, lay it on its side, with the head lower than the body. Place the heel of the hand on his side, in the dip behind the last rib. Give 3-4 thrusts in a forward direction, in a modified Heimlich manoeuvre. Wait for a few seconds to allow the water to escape, then repeat.
- This will often restart the breathing process but, if the lungs appear to have cleared of water, and your dog is still unresponsive, check for a pulse and start CPR or rescue breathing as appropriate, as detailed in Module 4.

If no water is expelled, it could be that your dog is experiencing dry drowning.

Dry drowning is when the respiratory muscles become paralysed, often through fear, or triggered by cold. There is no water in the lungs, but the pet is still unable to breathe.

As with above, check for a pulse and perform rescue breathing or CPR as required.

Once your pet is breathing again, it must be taken to a vet for further treatment and evaluation.

Near-drowning

As mentioned above, near-drowning is when water is inhaled into the lungs to the extent that it affects the flow of oxygen to the brain, and causes carbon dioxide to build up in the body.

While your pet may seem to be fine once the water has been expelled from its lungs, it is vulnerable to several health risks, including:

- Pneumonia, caused by contaminated water or vomit entering the lungs.
- Pulmonary oedema (when the air sacs in the lungs fill with fluid, preventing oxygen entering the bloodstream), or atelectasis (lung collapse), caused by water lodged in the lungs.
- Cerebral oedema due to lack of oxygen. This can present as disorientation, seizures, and coma.
- Spasms of the larynx, leading to suffocation.
- Shock or coma.

Your pet should be checked by a vet anyway, but especially if they start coughing or having breathing problems. This may be accompanied by their lips turning blue or purple, or fluid coming from the nose or mouth. In later stages, loss of consciousness may occur, and vital signs may be affected. It can take up to three days for these symptoms to appear.

Activity 1

Estimated time: 10 minutes

What are hypothermia and frostbite and what causes them?

Why are they so serious?

What are the symptoms for each, and what home treatment can be

provided?

6.6 Infection and Abscesses

An abscess is a collection of pus usually caused by a bacterial infection.



They feel squishy and hot, and occur when bacteria enters the body and is attacked by the white blood cells. Some of the tissue dies and creates a hole, which then fills with a mixture of dead tissue, white blood cells and the bacteria. Abscesses can develop anywhere in the body, including in and between organs.

Bites, puncture wounds, skin abrasions, and scratches from fights are common causes of infections and abscesses. This is because animals carry bacteria under their claws and in their mouths. Cats are more prone to abscesses as they more independent, and owners may not be aware that they have been in a fight or have injured themselves. Unneutered pets can be more aggressive than those that have been neutered, and so can be more likely to fight.

Abscesses in the mouth may develop due to rotting teeth, which are also infected with bacteria. Ruptured anal abscesses can be misdiagnosed as rectal bleeding.

Abscesses can be extremely painful, and may cause your pet to become withdrawn and depressed. An abscess in the mouth may prevent him from eating as normal. For pets covered in fur, it may be difficult to locate the site.

Typical symptoms of an abscess include:

- Swelling and pain – abscesses harden over time and the wall presses against other tissues and nerves
- Redness
- Hot skin over the abscess
- Hair loss
- Loss of appetite and fever
- Oozing sore with foul smelling discharge
- Limping, if the abscess happens to develop near a limb
- In cases of anal abscesses, pets may drag themselves across the floor to try to relieve the irritation
- A tooth abscess may be indicated by a swelling under the eye

As abscesses get larger, they may rupture, allowing the pus to escape into the bloodstream, and so travel around the body. This can cause wider infection, and even sepsis, a life threatening condition.

Abscesses can resolve on their own, but usually require medical attention.

Prevention and home treatment for abscesses

You can prevent abscesses by:

- Keeping your pet's teeth clean
- Ensuring that they don't chew on items that can hurt their mouths, for example, sticks that can splinter
- Cleaning any wounds when they occur. Small wounds can be treated with an antibacterial ointment. Larger wounds should be treated by a vet.

If your dog develops an abscess, it can be treated at home if it does not seem too serious, although it is always advisable to have it checked by a vet.

Home treatment:

- Ensure that your hands are clean, and preferably sterilised with antibacterial hand wash. This will help to prevent spreading the infection.
- Keep the area around the abscess clean. Salt water or antibacterial ointment can be used.
- Apply warm compresses to the area three to four times a day for between five and ten minutes. This will help improve the flow of blood, and so white blood cells, to the area.
- A solution of Epsom salts. This should be boiled and cooled.
- As far as possible, restrict your pet's movements. While walking it, avoid situations where it is likely to get into a fight with other animals.
- Pet owners can try applying a solution of warm and cooled Epsom salts and water.
- Use a medical cone to prevent your pet from licking or chewing the wound.
- Never attempt to prick or pierce an abscess yourself. This should only be done by a vet.

Activity 2

Estimated time: 15 minutes

What is an abscess, and what can cause them?

What are the common signs, and what can happen if they are left untreated?

How should owners treat them and what should they not do?

6.7 Insect bites and bee stings

Pets can be bitten or stung without showing any obvious symptoms.



The normal signs of an insect bite are redness, swelling, and itching. However, some pets have more extreme reactions, which can include breathing difficulties, vomiting, anaphylactic shock, and collapse. Dogs with short or thin body hair are more vulnerable to bites and stings, as their coats offer less protection.

First aid treatment for insect bites and bee stings

If your pet is stung, make sure that the sting is not in the wound. If it is, use something like a credit card to scrape it out, keeping the card parallel to the skin surface to prevent the sting being pushed further inside.

A cold compress or ice pack (wrapped in a towel), can be applied to reduce swelling. A solution of baking soda and water can neutralise the acidic venom.

Common insect bites

Flea bites are itchy bumps surrounded by a red halo. It looks like a red welt, and becomes larger if licked or scratched. It may become a blister or a wound after a few days. Flea bites are most commonly found in the head, neck, and tail areas. If left untreated, bites can lead to rashes, allergies, or even anaemia. Owners can identify if their pet has fleas by looking for droppings, which are usually on a dog's tail or a cat's back. Flea repellents and regular vacuuming can help prevent infestations.

Tick bites have been covered in Module 2. These must be treated promptly to prevent problems such as Lyme disease.

Mosquito bites cause itching and inflammation. While mosquito bites are usually annoying but harmless, a bite from an infected mosquito can cause heartworm, a potentially fatal infestation of the animal's body that leads to coughing, breathing difficulties, and vomiting. Fortunately, there has not yet been a reported case of heartworm that has originated in the UK.

There are a number of spiders in the UK that bite, although none are poisonous. The most common is the False Widow spider, which looks similar to the Black Widow Spider. Spider bites leave puncture marks, and can cause redness, swelling, and pain.

Symptoms of insect bites and bee stings:

- Swelling of eyelids, ear flaps and nose
- Swelling of the muzzle and facial area
- Hives or raised, red welts on the skin
- Weakness, muscular pain and fainting
- Unconsciousness

Home treatment

Most bites and stings can be safely treated at home:

- For stings, apply aloe vera gel. It will soothe the pain and burning sensation.
- Apply a cold compress to reduce swelling.
- For bumps and sores, apply a paste of baking soda and water several times a day.
- Irritation can be treated with milk of magnesia, calamine lotion, or hydrocortisone cream. The first two can be applied as frequently as required. The hydrocortisone cream should be applied in accordance with the instructions on the packet.
- A mixture of one teaspoon of Epsom salts to two cups of water (around 470ml) that has been boiled and cooled can be stored in the fridge and dabbed on itchy and

irritated paws.

Snake bites

There is only one poisonous snake in the UK: the adder. Although it can be found across the UK, it is more prevalent in the south and south west of England, west Wales, and Scotland. Adders rarely bite and, when they do, it is in direct response to a perceived threat. Adders can be found in all sorts of habitats, but they particularly like open ground, such as moors. They hibernate between October and spring, and re-emerge when the weather is warm enough.

While adder bites are uncomfortable for humans, they can be very serious for dogs. Dogs are most likely to be bitten on the face or front paws and legs, and most cases occur between April and July.

The symptoms of adder bites appear within two hours of being bitten. In all cases, there will be swelling, pain, bruising and bleeding at the injury site.

Two thirds of dogs will experience the following:

- Lethargy
- Fast heartbeat
- Rapid breathing
- Drooling
- Vomiting
- Wobbliness

In around 5 percent of cases, dogs will have severe symptoms, including:

- Breathing problems
- Collapse
- Convulsions
- Kidney failure
- Liver damage
- Blood clotting problems
- Shock

- Abnormal heart rhythm

In the event of a snake bite, owners should:

- Carry their dog, as walking can enable the poison to travel around the system more easily.
- Bathe the wound in cold water to reduce swelling.
- Do not attempt to open the wound up or suck the venom out, as this increases the flow of venom into the body.
- Phone your vet, advise them of the situation, and give them an approximate arrival time.
- Keep the dog calm and warm.

6.8 Bloat

Bloat is technically known as Gastric Dilation and Volvulus, or GDV for short.

GDV

It can also be referred to as gastric torsion, and is a life threatening condition where the stomach twists and distends with gas. In some cases, it does not twist, but just expands.

Bloat is the most serious medical emergency not caused by trauma that a dog can experience.

GDV is most likely to occur in deep-chested breeds such as German Shepherds, setters, Basset Hounds and Great Danes. It is thought that this is because there is more room for organs to move.

It is unclear what causes GDV. It is thought that it may be due to excess air swallowing when the dog is nervous, or foods that give off gas at an abnormal rate.

Gastric dilation can become fatal within hours due to:

- Inadequate flow of oxygen around the body
- Excessive pressure on other organs
- Breathing difficulties
- Rupture in the stomach wall

Common symptoms of GDV are:

- Restlessness, and discomfort when lying down
- Excessive drooling
- Dry heaving and gagging
- Pale gums
- Rapid heartbeat
- Shortness of breath
- Weakness and collapse

There is no first aid that can be administered for GDV, and dogs should be rushed to the vet's immediately.

Owners can take preventative measures to reduce the risk:

- Large dogs should be fed two to three times a day
- Owners of susceptible breeds should be particularly observant of symptoms
- Avoid strenuous exercise and excitement immediately after a meal
- Keep the feeding bowl at a slightly raised level

Assignment

Home Care and Treatment for Hypothermia, Drowning and Bites

Time: 30+ minutes

Hopefully, you took in as much of the information in this module as possible. To find out how well you have done, complete the following worksheet.

Download the worksheet below and complete.

[Download Worksheet \(PDF\)](#)

Module Summary

Owners may assume that their pet is adequately protected against the cold by their fur. While a few dog breeds have been bred to withstand cold temperatures, many have not. They can be susceptible to hypothermia, especially young and old pets, and those with thin fur. As hypothermia is invisible, and the visible signs of frostbite can take a while to develop, owners need to know what to look for, and provide suitable treatment. Reducing exposure to severe cold will reduce the risk.

It is often equally assumed that dogs are competent swimmers, and the risk of drowning is minimal, however, there are numerous reasons why dogs may drown. Even when a dog survives drowning and seems fine, owners should seek medical attention as water can be lodged in the lungs. This can lead to serious complications and even death.

Abscesses are sacs of pus and dead tissue, and are often painful. They are caused by trapped bacteria, and can quickly become painful. While small ones can be treated at home, it is always best to have a vet check them over.

In the UK, there are few dangerous animals, but insect bites and stings can cause pets discomfort. There are also some types that can cause serious health conditions. The adder is the only poisonous snake in the country, and is surprisingly common, even though many people have never seen one. A bite can easily be fatal to a dog, and veterinary attention should be sought immediately.

Bloat sounds harmless, but it is the most dangerous condition a dog can experience. There is nothing that can be done by the owner, and if there are any suspicions that your dog may be suffering, owners need to seek emergency medical treatment.

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Course"]

Module 7 : Household Hazards and Pet Medications

In this module you will learn:

- Household hazards that may prove dangerous to pets
- Poisoning and home treatment
- Home care for vomiting and diarrhoea
- Nose bleeds and chest trauma
- How to give medication to pets

7.1 Introduction

Whatever age our furry companions are, they sometimes demonstrate the sense of a toddler, and owners need to pet-proof their home to prevent them harming themselves.



Usually closed cupboards can be tempting when they are left open, regardless of the contents. Young animals, and certain greedier breeds, are more at risk than others. Knowing how to deal with ingestion of a poisonous substance can mean the difference between life and death.

Every pet will experience diarrhoea and vomiting at some point in their life. In most cases it is not serious, and can be treated at home by following some simple steps.

Broken and fractured bones develop due to accidents. Pet owners should always check for broken bones and joints following an accident. Compound fractures are easily identifiable, but identifying other breaks requires more

examination. Breaks and fractures need urgent medical attention followed by a home care programme to ensure that they heal properly.

Chest injuries are some of the most dangerous an animal can suffer, especially when they are caused when the pets are impaled by an object. Such injuries require immediate medical attention, and owners can help to reduce the risk by undertaking first aid before transporting the animal to the veterinary clinic.

Administering medication can be a tricky process, as most animals are not amenable to being given medicine. A little knowledge can make giving treatment easy and painless.

Fact



Dog bones and human bones are almost identical.
Source: acvs.org

7.2 Household hazards

Consumption of some household substances can result in poisoning.

The following items should be kept safely out of the reach of pets:

- Alcohol
- Antifreeze
- Bleach, detergent, disinfectants, and other household cleaners
- All medications, whether prescription or over the counter
- Insect repellents
- Lighter fluid
- Moth balls
- Rodent poison
- Solvents
- Tobacco
- Toothpaste

Certain foods should never be fed to pets, and should be kept away from them.

These include the following:

- Avocados
- Chocolate
- Grapes, raisins, currants, or sultanas
- Garlic
- Macadamia nuts
- Mouldy food
- Mushrooms
- Tea leaves
- Yeast dough

Other items that should not be accessible include:

- Batteries
- Glass
- Glue
- Hair pins
- Cotton swabs

- Razors
- Plastic wraps
- Nylon
- String

Please note that this list is not comprehensive, and there are numerous other materials and items that should be stored where pets are unable to reach them.

For a more complete list, visit www.dogstrust.org.uk

7.3 Poisoning

Human negligence, error, or accident can lead to pets consuming poisonous substances.



While it may seem sensible to induce vomiting, owners should contact their vet and seek advice first as, in some cases, vomiting can worsen the situation by burning the oesophagus. Many containers carry information on how to handle ingestion of its contents, and may clearly state not to induce vomiting.

Signs of poisoning include:

- Bleeding from different parts of the body
- Diarrhoea
- Fever
- Loss of appetite
- Lethargy, weakness
- Seizures
- Swelling of the tongue and drooling
- Loss of balance (staggering), disorientation and dizziness

Some toxic substances result in immediate symptoms. Others may not (known as insidious), and signs may take weeks or months to appear.

If advised by your vet to induce vomiting (known as emesis), you should do so in a safe manner. Owners should be very careful if they have flat-nosed breeds such as Pekingese and bulldogs, as they are at a great risk of inhaling vomit into their lungs.

This is a method that your vet may recommend:

- Using a 3% hydrogen peroxide solution, give the dog one tablespoon of the solution per 10lbs of body weight, or 0.5-1ml per pound. Honey can be added to the solution to make it more palatable.
- Administer the solution with an eye dropper or medicine syringe if possible. Dribble it to the back of the tongue or cheek until they swallow.
- The dog should vomit within around two minutes. Try to collect the vomit, which will contain the poisonous substance, in a container, and take it to the vet.
- Once they have finished vomiting, give them a teaspoon of Epsom salts, dissolved in a little water.

Do not try to induce vomiting by putting your fingers down their throat, or giving them salt or mustard.

Veterinary experts strongly suggest that these methods should NOT be used to induce vomiting.

When not to induce vomiting:

- If it has been over two hours, as the toxin has already left the stomach, and it could worsen the situation. It may even be fatal.
- If the toxin is acidic or alkaline, such as toilet cleaner, oven cleaners and batteries etc. Inducing the pet to vomit can cause harm to the oesophagus.
- When the pet has consumed hydrocarbons and petroleum

distillates such as petrol, kerosene, etc. Petroleum distillates are likely to get into the lungs, which can cause aspiration pneumonia

- If the pet has already vomited. Excess vomiting increases the risk of dehydration.
- If the pet is experiencing seizures or is unconscious.

Additional tips

If the dog has ingested something alkaline, such as a drain cleaner, you can try giving it diluted lemon juice or vinegar.

Activated charcoal (or, alternatively, burnt toast) is known to absorb poisons.

Pet owners should administer activated charcoal after inducing vomiting. The recommended dosage is one 5g tablet for every 10 pounds of body weight.

In cases of mild poisoning, owners can try feeding the dog a quarter of cup of egg white mixed with an equal amount of milk. Mix the ingredients and feed it to your dog using a medicine syringe. This helps coat the stomach and is particularly effective when treating caustic poisons.

For inhaled poisons such as gases, fumes and aerosol spray, take the pet into fresh air at once and administer rescue breathing if required.

If the poison enters the pet's eye, flush it out using water or a sterile saline solution.

Paws in winter

In winter, icy roads and pavements are often treated with salt or chemicals. These harmful substances can stick to paws so it is a good idea to soak pets' paws to remove them.

An effective treatment is a mixture of warm water and iodine, which effectively neutralises chemicals like herbicides and pesticides.

Action as follows:

- Fill a container with warm water
- Add iodine until the water is the colour of tea without milk added
- Soak each paw in the solution for 30 seconds
- Pat the paws dry with a towel

7.4 Diarrhoea and Vomiting

Vomiting and diarrhoea are common symptoms of many conditions.



They are not a disease in themselves, but are indicators of gastrointestinal upsets (stomach upsets); parasites (bacteria, virus, or fungal); or more serious issues such as kidney and stomach cancer.

It is important to understand the difference between vomiting and regurgitation.

Vomiting is the emptying of the contents of the stomach and upper intestine. It will often involve heavy retching, and the pet will need water or a hydrating solution afterwards to replace lost fluid and electrolytes.

Regurgitation is the expelling of half-eaten food from the oesophagus. Dogs will often swallow regurgitated food, and it is usually caused by greed or eating too quickly.

Vomiting and diarrhoea are common conditions, and every dog will suffer from them at some point. They may occur individually or together. Where vomiting occurs on its own, it

is often due to greed or gulping down food.

Between 80 and 85 percent of cases of vomiting and diarrhoea are due to non-serious issues, and can be treated at home. Prompt treatment can prevent a minor issue becoming a serious one. However, if the pet vomits repeatedly, or becomes weak or lethargic, they need urgent medical attention.

Treating vomiting and diarrhoea

If your dog has vomited but otherwise seems well, follow these steps:

- Isolate them from other pets. The cause of the vomiting and diarrhoea may be contagious.
- Remove all food and water.
- After two hours, allow the dog to have small amounts of water hourly. A couple of tablespoons is enough. Alternatively, you can give them ice cubes which will help the stomach wall to relax.
- Withhold food for another ten hours. However, if your dog starts to vomit yellowish fluid, this is caused by their stomach having been empty for too long. Start feeding them small meals in the morning and evening.
- If there are no further signs of vomiting, give the dog very small meals (1-3 tablespoons, dependent on size) every one to two hours. The food should be bland, easily digestible food. Chicken or white fish with rice or pasta, are ideal as they also contain binding agents.
- If there is still no more vomiting, increase the size and frequency of meals over a couple of days, and gradually start mixing in their normal food.

Pets lose both fluid and vital electrolytes when they experience vomiting and diarrhoea, which need replacing. They may also be dehydrated. You can test for dehydration as described in Module 3 by pulling up the scruff of the neck. If it does not spring back, your pet is dehydrated.

A simple hydration solution can be made using common household ingredients:

- Half a teaspoon of salt
- Two tablespoons of sugar
- 2 pints of water

Give the dog a teaspoon of the solution every two hours, and watch the dog over 24 hours. Alternatively, you can freeze the solution so that your pet can lick off small amounts; this is also gentler on the stomach.

In some cases, vomiting and diarrhoea can be serious.

If you see any of these signs, take your pet to the vet immediately:

- Blood in vomit or diarrhoea
- Vomit that smells like faecal matter
- Projectile vomiting not connected with ingestion of food
- Frequent and persistent vomiting that shows no sign of stopping
- Listlessness
- Weight loss
- Laboured breathing

Activity 1

Estimated time: 15 minutes

Name some common household hazards that can cause pets to become ill.

If vomiting is to be induced, what is the recommended method?

In what circumstances is it safe to induce vomiting, and in which situations should it not be attempted?

Can you remember any alternative treatments for different toxins?

7.5 Breaks and fractures

If your dog falls or is involved in an accident, particularly a road one, they may suffer broken or fractured bones.



The bones most likely to be broken are the femur (thigh bones), pelvis, jaw, and spine.

Fractures and breaks are serious and require immediate medical attention. In some cases, known as compound fractures, it is obvious as the bone is visible through the skin.

In less obvious cases, owners may spot a break, fracture, or serious sprain through the following signs:

- Limping or a limb or joint that looks at an unusual angle
- Unwillingness to put weight on one leg
- Refusal to play, walk, or climb stairs
- Swelling and pain in a limb or joint
- Crying or howling
- Unusual aggression

Limping or unwillingness to place weight on a leg or paw, may be a sprain. Owners should observe their pet to see if it resolves within a few hours, which a mild sprain may do. In a more serious sprain, the pet will continue to limp. If there is a fracture, they will probably refuse to use the leg at all.

If an owner is unsure if there is a problem, they should speak to their vet. Serious sprains and bone breaks require immediate attention, and it is better to have the animal checked over. If ligaments are torn, your pet may require

surgery.

Type of fractures

There are two types of fractures; open fractures and closed fractures.

Open fractures – where the bone pierces the skin. These are at high risk of infection as the open wound is vulnerable to bacteria, and require immediate attention.

Closed fractures – the bone does not pierce the skin.

Closed and open fractures are treated in different ways, but they often require general anaesthesia, X-rays, splints, and casts.

Owners can help their pet before they go to the veterinary clinic, by following these steps:

- Muzzle the pet, as the pain can cause them to become aggressive.
- Restrain the pet, as described in Module 5.
- Do NOT attempt to straighten a crooked leg.
- If there is an open wound, cover it with sterile gauze or a sanitary towel to help prevent infection.
- Dependent on the location of the break, the severity, and the age of the dog, you can splint the fracture. This will help until they can receive professional care.

How to splint a broken leg

Never attempt to splint a fracture if the movement appears to make the condition worse.

The most effective splints extend from above the joint above the fracture to under the joint below the fracture. This prevents the entire area from moving, and protects it.

For fractures below the elbow or knee, but above the wrist or

ankle, follow this method:

- Fold a thick newspaper, magazine, or a piece of cardboard around the limb. Centre rolls from toilet rolls or kitchen roll are ideal. Make sure that it reaches from the toes to above the joint.
- Tie it in place with gauze, medical tape, or a necktie. Be careful not to make it too tight.
- Alternatively, put a towel under the injured limb. Splint it as above, then wrap the towel around it.
- Fractures above the knee or elbow are difficult to splint. In these cases, keep the pet restrained and as still as possible. Transport the pet on a firm, flat surface, as described in Module 5. Never use the legs to manoeuvre the animal, as this can cause further injury. Carry small dogs with the injured side away from your body, and cuddle it close to you.

Joint, jaw, and skull fractures require immediate medical attention and probably surgery. Surgery may require the insertion of screws, pins, or wire to enable healing.

Home care after treatment of a fracture

Aftercare is very important following a break or fracture. The correct home care can make a real difference to the speed of healing and recovery.

The following steps will help post-operative healing:

- Restrict movement for about six weeks. This may be achieved by using a crate. The pet should not be allowed to run, play, or jump. If they do, it can aggravate the injury and lead to further surgery.
- If your pet goes in the car, lift them in and out. They may be particularly likely to jump out from habit.
- Ensure that any wound dressings are clean and dry, and that the pins securing the bandage are firmly in place. Loose pins can prick the skin and cause pain.

- Use a cone to prevent your dog from licking and biting the wound. As well as making the wound sore and delaying its healing, the mouth is full of bacteria, which can cause infection.
- If your pet has suffered a spinal fracture, a sling under the abdomen will help support their weight as they move. For larger dogs, two people may be required.
- For breaks in the front legs, use a splint around the chest.
- Wherever the injury is, your pet may need help getting up and down. Be very careful if you have slippery flooring, such as laminate, as slipping can cause further injury.
- Use short leads to take them to the garden to toilet, as this will restrict unnecessary movement. Any walks should be short, and owners should allow their pet to set the pace. If the wound is on the paw use a cover, such as a boot or a plastic wrap to reduce the risk of dirt and bacteria entering it.
- Reduced activity requires reduced calories to stop weight gain. Weight gain places extra strain on the skeleton and can delay recovery. A reduction of 30-40 percent is usually recommended.
- As the break heals, the vet may recommend gentle movement of the affected area, through the extension and folding of the joint. Only undertake this on professional advice.
- As your pet will be lacking their usual activities, give them lots of attention and care. However, be careful not to pet it too much initially, as it could cause them pain.
- Ensure you follow the prescribed care plan. You will probably need to administer medication, and may need to change bandages. Compound fractures may require application of antibiotic cream.
- The vet may recommend that you apply insulated ice packs to the area of the break. These should be applied for no

more than 10 minutes.

Additional information

Be aware that, following fractures and orthopaedic surgery, it is usually at least 3 months before the pet can be allowed to move about freely. However, after around a week, they should be able to start using the limb to an extent, and should show a steady and gradual improvement.

As with humans, younger animals will heal more quickly. Their bones contain additional protein repair tissue which promotes faster healing and recovery. They are also less likely to be overweight.

Initially, walks should be no more than 10 minutes long, twice a day. Increase this to 15, then by 5 minutes each week. For at least the first six weeks, they should be kept on a lead.

Hydrotherapy

Hydrotherapy is an excellent rehabilitation treatment. It allows the dog to exercise without placing strain on the body, as the buoyancy of the water supports their weight. While it is important to allow the break to heal, muscles will become weakened during enforced rest.

Hydrotherapy will help rebuild the muscles, plus improve circulation, and reduce inflammation. Consult your vet before beginning hydrotherapy to ensure that your pet is recovered enough to begin rehabilitation.

When to consult the vet

If your pet shows any of the following signs after being treated for a broken bone or fracture, you must contact your vet:

- Loss of appetite
- Lethargy

- Holding the injured paw completely off the ground for more than a week after treatment
- Unusual aggression, howling, whining or crying
- Excessive chewing or gnawing at the bandage site

Activity 2

Estimated time: 15-20 minutes

There are two types of fracture. If it is not a compound fracture, how can owners identify that there is a problem?

How should owners stabilise the pet before moving them?

What types of treatment might a vet undertake?

And what home care plan should be followed to assist recovery?

7.6 Home care and treatment for chest injuries

Chest injuries are most commonly caused by road traffic accidents, kicks, or falls. Injuries may be caused by blunt force trauma, or penetration by a sharp object.



Chest injuries can result in the bruising of the heart and lungs, and can rapidly escalate into a life-threatening condition.

A chest injury may be indicated by the following:

- Elbows pushed outward when standing
- Unexplained bleeding
- Pain

- Shallow and laboured breathing
- Reluctance to stand
- Unconsciousness

Treatment and first aid for chest wounds

Owners should be careful to check for puncture wounds following an incident that may have caused chest trauma. The inside area of the chest is a vacuum. When it is breached, it creates a new, dangerous, air pathway in the chest that sucks air into the cavity.

These are known as sucking wounds and, as they can crush the lungs, require immediate treatment.

The obvious signs of a sucking wound are:

- Bubbling blood
- Breathing difficulties
- The sound of air being sucked into the chest

If you identify a sucking wound, follow these steps:

- Immediately cover the wound with a plastic or bin bag to close off the air pathway to the chest. This can help to re-establish the vacuum and help your pet breathe more normally.
- Secure three of the edges of the plastic wrap with tape, so that air can escape if necessary.
- Carefully transport your pet to the vet immediately.

7.7 Managing injuries caused by stabbing or impalement

Impalement is when an object becomes lodged in the body of the animal. It may be caused by falls, trips, or accidents.



Where an object is still in the pet, owners should never attempt to pull it out. Removing it can cause further damage, and may cause heavier bleeding, as it can act as a 'plug'.

Place sterile bandages or sanitary towels around the wound at the point of entry, using the techniques described in Module 3. Stabilise the impaled object with bandages to prevent movement, which can cause further damage.

If the injury is to the chest area, stop the bleeding, and listen for a whistling sound. Do not apply any ointments. Take the pet to the vet immediately, taking extreme care when lifting, moving, or transporting the animal.

7.8 Treating a nose bleed

Nosebleeds are usually not serious, and can be easily treated using an ice pack placed on the bridge of the nose.



However, they may be caused by infections, injury, foreign objects becoming lodged in the nasal passage, or more serious reasons, such as tumours. Repeated nosebleeds require investigation.

When a nosebleed occurs, owners should:

- Keep the pet calm.
- Check the colour of the gums. If they are pale, the pet

requires urgent veterinary attention. Owners should also check for signs of bleeding gums.

- If the pet is sneezing, count the frequency. Excessive sneezing may make it difficult to stop the blood flow.
- Place an ice pack on top of the muzzle. The cold will constrict the small blood vessels, which will help to slow the bleeding.
- Try to keep the pet calm and prevent movement once the bleed has stopped. The blood will have clotted, and too much movement can cause the clot to rupture, leading to more bleeding.
- If the bleeding does not stop, take your pet to the vet.

Pets that experience a nose bleed may swallow a considerable amount of blood. This can lead to black, tar-like stools, or vomit containing blood clots. In this situation, owners should monitor their pet to ensure that it is not gastrointestinal, but should not be overly concerned.

7.9 Administering medications to pets

Some over the counter medications are suitable for pets, and owners may wish to keep some at home, ready for use.



Owners should always check with their vet if the medication is appropriate.

The only medications that owners should keep at home specifically for pets are:

- Benadryl for allergies and itching. The dosage is 1mg

per pound of weight, administered every 8-12 hours.

- Pepto Bismol for diarrhoea, gas, and vomiting. Give one teaspoon per ten pounds of weight.
- 3% hydrogen peroxide solution, to induce vomiting. The method for administering this is covered earlier in this module.

The easiest way to administer medication is to mix it with food. Meat, cheese, or yoghurt are good options if the medication is in tablet form. However, some dogs will refuse if they can smell the medicine, or think that it is there.

When giving medication to pets, owners should:

- Have the medication ready. If it is liquid, shake the bottle, and measure out the right amount in a medicine syringe or dropper.
- Call the dog to you in the way that you normally would.
- Get your dog to sit or stand with a hard surface, such as a wall, behind them. This will help to prevent them running away. Some owners find that putting them on a raised surface can also help.
- Holding the dropper or syringe in one hand, tilt the pet's head up slightly with the other and hold it by the muzzle. You may need help if you have a larger dog.
- Place the syringe between the dog's cheek and back teeth. Squeeze small amounts into the mouth. Do not squeeze too much at a time as this can cause choking or vomiting.
- Gently but firmly close your dog's mouth, and hold the muzzle closed with their head tilted slightly back. This encourages swallowing. You can also stroke under the throat in a downwards motion.
- If the dog spits out the medication, do not administer any more unless you are certain that they have spat out all of it.
- Praise the dog throughout the process. Afterwards, give them a small treat as a reward. This will make it easier

the next time.

Activity 2

Estimated time: 15-20 minutes

There are two types of fracture. If it is not a compound fracture, how can owners identify that there is a problem?

How should owners stabilise the pet before moving them?

What types of treatment might a vet undertake?

And what home care plan should be followed to assist recovery?

Assignment

Household Hazards and Pet Medications

Time: 30+ minutes

Hopefully, you took in as much of the information in this module as possible. To find out how well you have done, complete the following worksheet.

Download the worksheet below and complete.

[Download Worksheet \(PDF\)](#)

Module Summary

Every household contains substances that can be hazardous to animals if ingested. These include plants, household cleaners, certain foods, and items such as hair grips or even toothpaste. Where toxins are consumed, owners should immediately contact their vet, and follow their instructions. In some cases, inducing vomiting will help, but in others it can cause further harm. Owners should make themselves aware of when inducing vomiting is appropriate, and when it is not.

Diarrhoea and vomiting are a common condition, and every pet will suffer from them at some point. They are a symptom of other conditions, rather than an illness in their own right. Usually, they can be treated at home by limiting access to food and drink until they have passed.

Breaks and fractures are both painful and serious. While they require professional attention, an owner can stabilise the affected area before moving their pet. The care that a pet receives after medical intervention can make a real difference to their recovery. Limiting movement, protecting the wound, and rehabilitation all play an important.

Chest injuries are some of the most serious a pet can suffer, particularly if it is a sucking wound. A sucking wound is one that pierces the chest cavity, allowing air to be sucked in. Untreated, this will cause the lungs to collapse. In some cases, the object causing the injury becomes impaled. Owners should know what first aid to administer in each of these circumstances, before they transfer the animal to the veterinary clinic.

There are many circumstances where an animal will be prescribed medication. It is useful to know the best way to administer treatment, to minimise distress for all concerned.

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