

Unit 301 Understand and Promote Animal Health

Outcome 1 Be able to recognise indicators of health in animals

Assessment Criteria

The learner can:

1. Describe the **indicators** of good and ill health in animals
2. Carry out **health checks** on animals
3. **Handle animals** in a way that complies with **legislation, minimises stress and injury**

Range

Animal Management – companion (dog or cat) and either small mammals (rabbit and rodents) or exotics or large mammals (goat, camelids, donkey, pig or other available large mammals)

Unit content

Indicators

Physical signs e.g. behaviour, movement, posture, coat condition, weight, ears eyes mouth and nose, tail, toes/feet/hooves (as appropriate) clinical signs e.g. temperature, pulse, respiration

Health checks

Routine, non-routine, animals of different life stages (young, breeding/pregnant, lactating, adult, geriatric), recording requirements, reporting requirements, acting on findings of ill health or problems

Handle animals

Reasons and techniques for handling - grooming, health checking, transportation, sexing, administration of treatments, handle animals of different ages, sizes and temperaments

Legislation

Animal Welfare Act 2006 and Animal Health and Welfare Act (Scotland) 2006, Health and Safety Act 1974, Welfare of Animals (Transport) Order 2006, Control of Substances Hazardous to Health (COSHH) 2002, The Welfare of Animals at Market Order 1990 (as amended 1993), The Welfare of Farmed Animals Regulations 2000 (as amended 2003), The Veterinary Surgeons Act 1966 (as amended 1996), The Welfare of Animals Regulations (slaughter or killing) 1995 (England) (amended 2007), Horse Passports Regulations (England) 2004, Pet Travel Scheme (PETS)

Minimising stress and injury

Safe and correct handling techniques, handling and restraint equipment (as appropriate to the species) pet carriers, collars, halters, headcollars, bridles, leads, muzzles, crates, catchpole, cattle crush, chases/runs, gates, tethers, snake hooks, snake bags, gloves and bird bag

OBJECTIVES

- Evaluate the importance of good animal health as a component of good animal welfare.
- Recognise the components of a visual health check.
- Identify indicators of acute and chronic pain in zoo animals.
- Identify factors that identify poor health and how to minimise them.



REASONING

- Prompt veterinary diagnosis and treatment is essential in minimising any impact of pain, injury or disease.
- Developing good animal welfare practices will minimise the likelihood of poor health outcomes, disease transmission and injury.



- Health checks can be non-invasive and simple.
- Visual health checks should be part of your everyday routine as an animal carer.
- Knowing your animal's individual needs and behaviours can help identify problems more quickly.
- Prevention is better than cure – know how to prevent diseases or injuries taking place.
- Set up good lines of communication between your zoo and a vet to ensure animals are regularly checked and cared for.
- Look out for obvious signs of ill health, but remember that some animals will try and hide that they are ill.
- Observation is key to ensuring good animal health. Observing your animal's physical health as well as psychological well-being through behavioural observations is important. Faecal matter can also tell you a lot about an animal's health.
- Strict quarantine protocols are essential to prevent the spread of disease. Although areas must be easy to clean and disinfect, animal welfare should still be considered. Behavioural needs must also be met within a quarantine facility, for example, through environmental and behavioural enrichment provision.

WHAT IS A VISUAL HEALTH CHECK?

The knowledge and understanding which animal care staff have in regards to the species (and the individuals) within their care is vital in maintaining good health and welfare of captive animals.

Carrying out a regular visual health check of an animal forms an integral part of this ongoing knowledge and understanding.

A visual health check allows for abnormalities in health or behaviour to be promptly identified, reported and any relevant action taken. This will help to ensure consistently good animal welfare standards.

THE VISUAL HEALTH CHECK

- Inspect all animals daily through health and behaviour observations.
- However, don't use a daily inspection if it may negatively affect the animal, for example, disturb a stage of the breeding cycle.
- If the animal is trained to voluntarily sit on scales, weighing that animal weekly or monthly can assist in early identification of health problems and give a good indication of physical fitness.



Remember!

Visual health checks should be part of your daily routine. Don't do a health check only when you think there may be a problem, but instead assess each animal daily to help you identify early warning signs. Make sure you record the data for others to be able to access (e.g. in a daily diary).

Know Your Animals.

Learn to spot injuries or sickness by regularly checking and recording what you observe.

As an animal carer, it is important that you can recognise and observe good health and welfare signs in your animals. These include:

- A bright, alert animal that reacts to new or unexpected stimuli.
- Good physical condition of the animal.
- Absence of pain, disease, trauma or distress.
- Development and expression of natural behaviours.
- Normal levels of growth, development, reproduction and life expectancy.
- Active interaction with environment and normal behaviours (e.g. rest and play).

THE DAILY VISUAL HEALTH CHECK



EYES. Are they clear, bright, free from secretion and reactive to the environment?



EARS & NOSE. Are they free from secretion and clear of debris e.g. skin sheds in reptiles. Are ear tags still present (if used)? Is there any sign of injury? Has the position of the ear changed which might indicate pain?



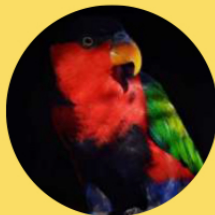
MOUTH/TEETH/BEAK. Are there any sores on the mouth, broken teeth, or an overgrown, damaged or injured beak? Are there signs of pain whilst eating?



HOOVES/CLAWS/HORNS. Are they overgrown, damaged, cracked or impeding movement? Do they need trimming/shaping or the addition of objects or substrates to help wear them down in the enclosure?



MOVEMENT. Is the animal moving and behaving normally? Is there a limp or change in gait? Is the animal showing signs of pain when moving or reluctance when weight-bearing on a particular limb?



COAT/SKIN/FEATHER/SCALES. Is the coat shiny, even and parasite-free? Do feathers look smooth and uniform? Are there any scales out of place or retained scales from sheds? Are there any growths, scratches or other signs of injury? Is there any damage to fins, tentacles or antenna?



HINDQUARTERS/FAECES. Is the back end clear from parasites and clean of faecal matter? Do the faeces look normal and well formed?



BODY CONDITION. Does the muscle definition and general physical status of the body look normal and healthy?



STOOL CHARTS

FAECAL ANALYSIS



You can tell a lot about an animal's health from its poo. Whilst cleaning it up, it's a good idea to check that it looks normal in colour and consistency. Changes could indicate a health or nutrition problem that should be investigated and a potential dietary adjustment made. A diet that is too high or low in a particular nutritional element could cause faecal consistency changes, for example, normally firm stools might become more liquid. Be aware that other aspects can also have an impact. For example, feeding beetroot will turn stools red! Faecal screening twice a year is advised, to check for infections and parasites.

Below is an example of a stool chart. This example shows how you can classify and compare what you are seeing in one species. These charts can also be a useful training tool for less experienced animal care staff.

Bongo (Tragelaphus eurycerus) faecal scoring chart - created by Rachel Puncher.



1 - Optimum. Leaves the body as small firm pellets. Firm and dry.



2 - Individual pellets but moist, mis-shapen and clumped. Will hold their form but sticky to touch.



3 - Pellets still apparent but forming sticky clumps and very sticky to touch.



4 - Leaves the body as a large clump. Quite fibrous in texture.



5 - Appears to be one unit. Loose in texture, does not hold form when picked up.



6 - Requires effort to expel from the body. No defined shape, leaves a very sticky residue and falls apart when picked up.



7 - Falls easily from the body, splatters on the ground, very loose, no texture and extremely sticky. Leaves residue on the animal.

Non-mammalian species - If you notice sudden changes in colour, texture or odour of droppings in reptiles and birds, this might indicate a problem which could require veterinary attention. For example, in many reptile species that originate from desert regions, excretions should be relatively dry so apparent diarrhoea could be an indication of a health issue. However many of these species can also use liquid excretions as a defence mechanism in stressful situations. Birds, reptiles and amphibians all excrete urine and faeces from one opening, the cloaca, which is why poo from these species has white deposits.

GERIATRIC CARE

Many animals live longer in captivity than their wild counterparts, due to a reduction in the pressures experienced in the wild. These could include the necessity to find enough resources to sustain themselves and the lack of risk of being attacked by a predator. In captivity, the provision of good nutrition, a safe environment and medical care can extend longevity. Caring for elderly animals can be challenging as they will experience physical and mental changes as they age. These changes will require extra consideration in terms of husbandry to ensure a good standard of welfare is experienced throughout their entire life.

Some of the most common ailments related to the physical aspects of ageing are listed below.

- Dental problems such as tooth fractures, gum disease and missing teeth.
- Lethargy and reduced activity levels.
- Degeneration of joints and compromised mobility.
- A change in body composition e.g. decreased muscle mass and increased body fat.
- Increased chance of disease development.
- Poorer skin, feather and coat condition.
- Pain.

In addition, mental changes such as a gradual deterioration of cognitive and sensory function as well as changes to sleep cycles, appetite and social behaviours may occur too.



Managing these changes through observations and health assessments are important, as well as ensuring that the elderly individual still experiences opportunities to problem solve, make choices and express rewarding behaviours. It is also important to ensure that the enclosure meets the varying needs of the animal throughout their life. Managing pain through medication should be discussed with a veterinarian and continually assessed for effectiveness. Dietary supplements can help ease symptoms of joint degeneration, and food presentation can go some way into the management of dental issues.



QUALITY OF LIFE ASSESSMENT

As animals age, their quality of life can be impacted by multiple health problems. When the welfare of an individual is compromised due to poor physical or psychological health. It is up to animal care staff and veterinarians to continually assess the quality of life experienced by the animal. Regular assessment can help decide when geriatric problems are no longer manageable through husbandry and medicinal practices. If quality of life is continuously impaired, euthanasia should be considered.

PREVENTATIVE MEDICAL CARE



As an animal carer, you should regularly consult with your manager or the resident or local vet to ensure appropriate treatment and veterinary care is being given. It is useful to think about the following during your veterinary consultations:

- Consider all individuals in your care and what their specific health needs might be (e.g. elderly, lactating, recovering from injury etc).
- Consider the diseases which commonly occur in your country or are found in that particular species.
- Ensure health screening protocols are in place which include urine, faecal and blood tests.
- Have regular veterinarian visits if there is not a veterinarian on site.
- Keep full detailed health records for all animals in your care so you can easily share information with your veterinary support team.
- Consider chronic diseases which may need different treatments to acute health problems e.g. chronic arthritis.
- Post-mortem examinations of any animal that dies within the facility should take place by a veterinarian.
- Review of historical health records to identify on-going/long-term issues.



MANAGING ANIMAL HEALTH

Prompt veterinary diagnosis and treatment are critical to minimise the impact of pain, injury and disease in the animals within your care.

Clear communication between veterinary staff and competent personnel is vital.

Veterinary treatment must only be administered by appropriately qualified veterinary personnel who are professionally competent to do so, or under guidance and instruction by qualified veterinary personnel if appropriate. Veterinary personnel have a legal obligation to ensure the health and welfare of all animals under their care.

Veterinary drugs must be stored in accordance with local legislation. Expiry dates should be checked and out of date drugs should not be used. Safety protocols should be in place for handling and administering of all drugs/medication.

Veterinary facilities should be in place for the safe examination, diagnosis and treatment of animals, with a dedicated room with examination table, hot and cold running water, lighting, power and safe storage of all veterinary equipment and drugs.

ADMINISTERING MEDICATION



Whilst it is always important to remember that trained professionals such as veterinarians should be the ones to administer medication through injections, it can be useful for animal care staff to know how to administer oral medication as this will sometimes be required on a daily basis. Training your animals for this and to voluntarily accept veterinary treatment makes management easier for you and less stressful for the animals.

Remember: positive reinforcement training leads to compliant behaviours. Punishment and forceful restraint leads to avoidance behaviours that are both stressful and sometimes dangerous.

When giving an animal medication, it is often best to hide it in a favourite treat. This treat should be of a very high reward value for the animal (e.g. honey for a bear). Try to avoid offering the same treat every day during the course of treatment as the more the animal receives it, the less of a reward value it holds, particularly when it tastes of medication. It is sometimes a good idea to separate the individual from the group to ensure they get the entire dosage.

Medication can come in pill, powder or liquid form. Capsules can sometimes be split to access the powder inside which might make it easier to administer although check with a vet in case this alters the effectiveness of the drug. Learn which type of medication your animals may be more likely to take and the best ways in which to hide them.



- **Quarantine** of new animals is necessary to safeguard existing animal health and welfare. This will prevent the spreading of disease and allow thorough examination of new arrivals. All animals in quarantine should be adequately examined to assess their health status before they are introduced to the facility and before meeting other animals. A minimum period of 30 days in quarantine is a good guideline to use. Strict personal hygiene for animal care staff must be adhered to, as well as complete segregation between quarantined and non-quarantined animals.
- A safe and effective pest control programme must be in place which also considers the most ethical methods for humane extermination. These methods must not cause harm to non-target species and not cause any undue pain or distress to target species.
- Animal carcasses should be correctly handled and disposed of.
- Staff should wear appropriate personal protective equipment (e.g. gloves, boot covers etc) whenever necessary to prevent the risk of a potential zoonosis, which is a disease that can be transmitted from animals to humans. Protective equipment will also prevent the transmission of reverse zoonosis, which is a disease that can be transmitted from humans to animals.
- Staff should report to their supervisor if they become ill with any infection they believe could have come from, or be passed to, an animal within their care.
- Staff should follow all institution protocols at all times, reporting to their supervisor if they have any concerns.

RECOGNISING PAIN - WHAT TO LOOK FOR

We must pay close attention to animal behaviour and activity levels, and investigate any changes in behaviour which may be associated with pain. Pain can be divided into two categories:

Acute pain – short-term pain, usually in response to an injury or surgery. This pain is more easily recognisable as we may see the injury, or notice a specific sign such as sudden lameness.

Chronic pain – long-term pain which often develops slowly over time and can be difficult to detect as the animal may modify its behaviour to 'mask' the pain. It is associated with degenerative health problems such as osteoarthritis, dental disease, ocular or skin disease.

IMMEDIATE ACTION MUST BE TAKEN IF AN ANIMAL IS INJURED OR UNWELL OR IF POOR WELFARE IS IDENTIFIED AT ANY TIME. Report to your supervisor or senior personnel and consult a veterinarian.

INJURIES OR DISEASE

A diseased or injured wild animal will often hide obvious signs of being ill. This is why it is important to be very observant to even the smallest changes in movement, body and skin condition, dietary intake or behaviour that deviates from what is normal for that individual. Different species will show that they are unwell in different ways. For example, a social animal may stop interacting with others in a group and could be subject to bullying.

It is important that you know your animals and can tell if they are not acting normally. If an animal in your care is displaying any of these signs, you should inform your vet immediately:

- Lethargy, excessive sleeping or depression.
- Injury such as lameness or abrasions.
- Vomiting.
- Unusual levels of aggression.
- Reduced social interaction in a normally social species.
- Social conflict.
- Hiding for extensive periods of time.
- Over-grooming (may have parasites).
- Reduced appetite.
- Abnormal repetitive behaviours.



Sometimes it is obvious if an animal is unhealthy, but at other times an animal will try to hide that it is unwell. Showing illness in the wild would put them at risk of predation or competition. It's important to know your animal so you can easily and quickly spot any changes to its behaviour that may indicate poor health. Animals will incur minor injuries from time to time, but it's important to be able to recognise when to act on them.

Summary

- Animals are unpredictable, especially during the joining (mating) season.
- Make sure yards, sheds and equipment are in good repair.
- Ensure that workers are appropriately trained and familiar with the temperament of the animals on your farm.
- Take care when visiting other people's farms.

Farmers and farm workers can easily be injured by livestock. Cattle, pigs, horses, sheep, dogs and other farm animals can be unpredictable and should be treated with caution at all times. Attempting to lift or push animals can cause injury and animals may also transmit certain diseases. Plan ahead for any task, maintain a barrier between the animals and yourself, and get help if you need it. To prevent farm accidents, assess the breed, temperament, gender mix, size and training of your animals. Remember that both male and female animals may be more aggressive during the mating season. Make sure workers are adequately trained and familiar with the temperament of the animals they are working with. Also ensure that yards and fences are well designed and properly maintained. Always wear suitable protective clothing (pants, boots) and use appropriate animal-handling facilities and aids such as cradles and crushes.

Farm safety risk assessment – animal handling

You can assess potential animal handling risks in many ways:

- Walk through all animal-handling areas and look for hazards, such as broken gate latches, broken posts, or restraining equipment not working.
- Reflect on injury records to pinpoint recurring dangers, including less obvious ones like lacerations and sprains.
- Talk over safety issues with family members, workers and other animal handlers.
- Make sure at least one person on the farm is trained in first aid.
- Remember that inexperienced workers and bystanders are more likely to be injured.

Yard design, equipment and safety

General suggestions for improving yard safety include:

- Yards, crushes, cradles and sheds should be suitable in size and strength for the animals being handled.
- Avoid blind corners and sharp turns in the design of your yard.
- Keep the walkways and laneways dry and non-slip wherever possible.
- Make sure your gates, footholds and access ways are well positioned.
- Keep all equipment in good repair: gates moving and hung, latches working, hinges greased.

Safe handling of horses

Suggestions for handling horses include:

- Use appropriate riding equipment that is kept in good repair.
- Wear suitable protective clothing, including a helmet.
- Exercise a horse before you attempt to mount.
- Make sure that inexperienced riders aren't teamed with aggressive or nervous horses.



Safe handling of pigs

Suggestions for handling pigs include:

- Keep boars separate at all times.
- Use a drafting board when moving boars.
- Use nose ropes and crushes to restrain pigs when necessary.
- Lifting a pig should be avoided, but if you must lift a pig, sit it down facing away from you, draw it close to your body and pick it up by the back legs, making sure to lift with your thigh muscles.

Safe handling of sheep

Suggestions for handling sheep include:

- Plan musters in advance.
- Assume that rams will act unpredictably.
- Use suitably trained sheep dogs to control the mob.
- Avoid isolating individual sheep.
- Lifting a sheep should be avoided, but if you must lift a sheep, sit it down facing away from you, draw it close to your body and pick it up by the back legs, making sure to lift with your thigh muscles.
- When shearing, use a harness to support your back.

Animal and human diseases

Many diseases can be transferred from animal to human through contact with skin, wool, hair, blood, saliva, faeces, urine and foetal products. Precautions include:

- Keep your animals appropriately vaccinated.
- Familiarise yourself with the symptoms of animal diseases.
- Treat any sign of illness promptly.
- Practise good personal hygiene – for example, washing hands and getting out of soiled clothing.
- Cover all cuts and open wounds before coming in contact with animals.
- If you come in contact with animal blood, urine or saliva, wash well with soap, water and antiseptic.
- Don't feed offal to dogs as it can transmit hydatid disease.

Animal Welfare Act

Prior to the Animal Welfare Act, animal welfare law was largely reactive and action could only be taken once an animal had suffered unnecessarily.

The 2006 Act has introduced an important and new concept for pet owners and those responsible for domestic animals, e.g. breeders, those who have working animals or farm animals in England and Wales.

What does this mean for those responsible for animals?

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

Preventing animals suffering

This means enforcement agencies and our inspectors can now act by advising and educating owners before their pets suffer. If this advice is not followed or the animal's needs are not being met then action can be taken whether through a formal warning or in some cases a [prosecution](#).

What does the law actually say?

Section 9 of the Animal Welfare Act places a duty of care on people to ensure they take reasonable steps in all the circumstances to meet the welfare needs of their animals to the extent required by good practice.



Why is COSHH important?

COSHH is important for farms due to the nature of their operations, which frequently use or generate hazardous substances. Adhering to the regulations delivers significant benefits, including:

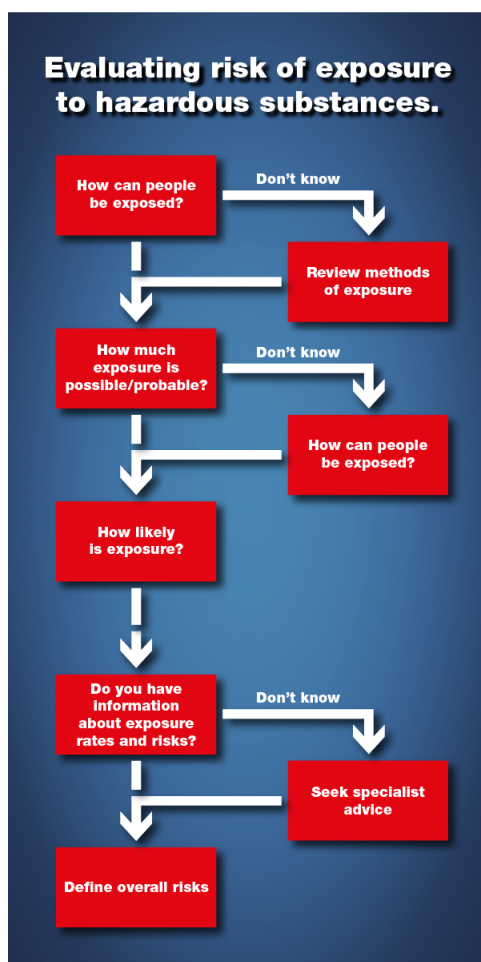
- **Improved health and safety.** COSHH helps farms to protect farm workers from potential health risks associated with hazardous substances. While corrosive and toxic substances grab the headlines, others can have longer-term (chronic) effects, such as mutagenic (DNA damaging), teratogenic (harmful to unborn children), carcinogenic (causing cancer), and sensitising effects, such as causing asthma and dermatitis.
- **Environmental protection.** COSHH requires waste from hazardous substances to be disposed of safely in a way that doesn't put the environment at risk.
- **Legal compliance.** Failing to comply with COSHH regulations is dangerous, and can lead to major penalties, including unlimited fines and even imprisonment. Further, it is normally a condition of your farm insurance that you comply with applicable industry legislation.



What are employer responsibilities under COSHH?

Farm employers have a wide range of responsibilities under COSHH. The key ones are as follows:

- **Identifying hazardous substances** used in the workplace or generated by working activities. These can include everything from pesticides to poultry dust or veterinary medicines.
- **Planning how to prevent harm to health.** This is done by conducting a COSHH risk assessment (see below).
- **Having control measures to prevent harm to health.** These could include elimination (removing a hazard), substitution (using a safer substance), engineering controls (isolating people from the hazard), administrative controls (changing the way people work) and ensuring workers use suitable PPE.
- **Making sure control measures are used.** Control measures need to be adhered to during day-to-day work on the farm.
- **Keeping control measures in good working order.** This could include ensuring you always have adequate PPE in stock and that all new workers know safe working practices.



What are employees' responsibilities under COSHH?

Farm workers also have responsibilities under COSHH to keep themselves and others safe. These include:

- **Complying with control measures.** Workers need to adhere to any control measures that are in place, such as procedures for handling, using, and disposing of hazardous substances.
- **Using PPE.** Employees should always use appropriate PPE provided by their employer. It should be worn in accordance with the manufacturer's instructions, stored correctly and, if it could cause contamination, removed before eating, drinking, or smoking.
- **Taking part in training.** Workers have a responsibility to participate in training provided by their employer regarding the risks associated with hazardous substances and the proper use of control measures and PPE. This helps them understand the risks, improve their awareness, and ensure their safety and that of others.
- **Reporting concerns and incidents.** Employees should promptly report any concerns or incidents related to hazardous substances to their employer or supervisor. These might include accidents, spills, leaks, equipment malfunctions, or any signs of ill health that may be related to their work. They should also report any defects in PPE immediately.
- **Personal hygiene.** All farm workers should practise good personal hygiene, such as washing hands before eating or drinking, and follow proper decontamination procedures if they come into contact with hazardous substances.
- **Health monitoring.** If health surveillance is provided by the farm employer, employees should participate. This may involve regular health checks and providing relevant information about their health and exposure history. Health monitoring is particularly important for workers exposed to dust that can cause lung disease, substances such as solvents that can cause skin issues, not to mention sheep dips that contain organophosphorus (OP) compounds.



What are hazardous substances on farms?

Many hazardous substances on farms fall under the scope of COSHH. The HSE [outlines the types of substances](#) covered in all workplace settings. These include chemicals, products containing chemicals, fumes, dusts, vapours, mists, and gases.

For the purposes of farming, common hazardous substances include:

- **Pesticides, herbicides, insecticides, and fungicides.** Some of these chemicals can be toxic and pose risks if not handled, stored, or used correctly.
- **Veterinary medicines.** Livestock farms will use veterinary medicines such as antibiotics, vaccines, or parasiticides. These substances can be hazardous if mishandled or if workers are exposed to them without proper precautions.
- **Fertilisers.** Some fertilisers contain ammonium nitrate or other nitrogen-based compounds, which release toxic gases or cause chemical burns if not handled with care. Inhalation or contact with these substances can be harmful to health.
- **Cleaning agents.** Farms use cleaning agents for equipment, animal housing areas and other facilities. These agents can contain corrosive, toxic or irritant chemicals, posing risks to workers if used improperly or without adequate protection.
- **Silage and animal waste.** Silage and animal waste can release harmful gases that pose respiratory risks to workers if exposed to high concentrations.
- **Dusts and allergens.** Farms often generate dust from harvesting, feed processing, or animal bedding. Dust particles can contain allergens, pathogens, or harmful substances, causing respiratory issues or allergic reactions.

Pet Travel Scheme (PETS)

PETS allows pet dogs, cats and ferrets to travel between and into EU Member States (including NI) without quarantine, as long as they meet the conditions of the scheme.

The EU Pet Travel Regulation covers the movement of up to 5 pets with their owners. Where more than 5 pets are travelling in a consignment (see exception for travelling to shows below) or in the case of the commercial movement of pets, as well as the preparations needed for pet travel, the requirements for commercial trade laid down by the Animal Health Law Regulations 429/2016 must also be met.

- Pets must be microchipped - Always check that your pet's microchip works whenever you go to the vet!
- Pets must be vaccinated against rabies after the microchip and hold a current rabies vaccination. Pets must be at least 12 weeks old at the time of vaccination.
- 21 days must have passed after the rabies vaccination.
- Pets must travel with an GB Health Certificate. If you are getting GB health certificate completed, then it must be endorsed by the necessary authority (this is not the same vet that completes the paperwork).
- Pets must travel on an approved route with an approved airline.
- Dogs only: Must be treated for tapeworms between 24 and 120 hours prior to arrival in the UK. The treatment must be with a licenced product containing praziquantel.

Please note: Pets must travel with supporting documentation- this means:

- Proof of microchipping: certificate of registration/ patient notes/ letter from vet.
- Proof of rabies vaccination: Vaccination card/ Rabies vaccination certificate - these MUST have the microchip number on or there will be delays.

Now that the UK is no longer part of the EU, new rules have been introduced which means that there are additional requirements you need to be aware of when travelling to a European country with your pet.

Your pet MUST have the following:

- 1 Microchip**
Your pet must be microchipped before travelling to the EU or Northern Ireland.
- 2 Rabies Vaccination**
You must get your pet vaccinated against rabies before travel. They will be eligible to travel to the EU 21 days after this vaccination.
- 3 AHC**
Pet Passports are no longer valid and you will need an Animal Health Certificate instead signed by an OV Vet. You will need to get this no more than 10 days before travel.
- 4 Tapeworm Treatment**
Depending on the country you are visiting, your pet may need to be given tapeworm treatment. This must be given by an OV vet no less than 5 days before arrival.

Unit 301 **Understand and Promote Animal Health**

Outcome 2 Understand common disease and disorders, their treatment and prevention

Assessment Criteria

The learner can:

1. Examine the **role of pathogenic organisms** in animal disease and the **immune system**
2. Explain **common diseases and disorders** in animals and their impact on health and welfare including **notifiable** and **zoonotic**
3. Explain the reasons and methods of **preventative care** and treatment measures used for animals

Range

Animal Management – companion (dog or cat) and either small mammals (rabbit and rodents) or exotics or large mammals (goat, camelids, donkey, pig or other available large mammals)

Unit Content

Role of pathogenic organisms and the immune system

Bacteria, viruses, fungi, prions, protozoa, ecto and endo parasites, the methods of disease transmission, infection, the immune response, immunity (passive, natural, active and artificial)

Common diseases and disorders

Principle causes (bacterial, viral, fungal and parasitic) routes of transmission – and signs of commonly found diseases and disorders in the range of species

Notifiable diseases

A notifiable disease is a disease named in section 88 of the Animal Health Act 1981 or an Order made under that Act. Section 15(1) of the Act – cover diseases appropriate to animals from the range

Zoonotic diseases

Diseases and infections which are naturally transmitted between vertebrate animals and man – cover diseases appropriate to animals from the range

Preventative care

Vaccinations, endo-parasite prevention, ecto-parasite prevention, care of teeth, claws/hooves and coat, use of prophylactics, isolation and quarantine

A pathogen is any organism that causes disease. Viruses, bacteria, fungi, and parasites are all examples of pathogens.

An animal's body is naturally full of microbes. However, these microbes only cause a problem if their immune system is weakened or if they manage to enter a normally sterile part of the body. Pathogens are different and can cause disease upon entering the body. All a pathogen needs to thrive and survive is a host. Once the pathogen sets itself up in a host's body, it manages to avoid the body's immune responses and uses the body's resources to replicate before exiting and spreading to a new host. Pathogens can be transmitted a few ways depending on the type. They can be spread through skin contact, bodily fluids, airborne particles, contact with faeces, and coming into contact with an area of an infected animal.

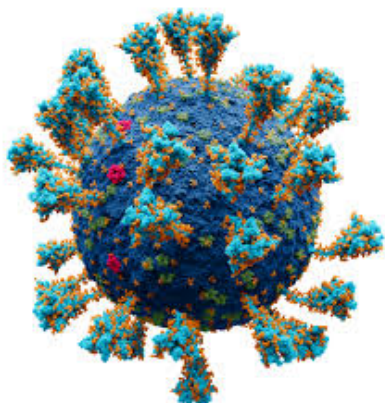
Viruses

Viruses are made up of a piece of genetic code, such as DNA or RNA, and protected by a coating of protein. Once you're infected, viruses invade host cells within your body. They then use the components of the host cell to replicate, producing more viruses.

After the replication cycle is complete, these new viruses are released from the host cell. This usually damages or destroys the infected cells.

Some viruses can remain dormant for a time before multiplying again. When this happens, a person appears to have recovered from the [viral infection](#), but gets sick again.

[Antibiotics](#) do not kill viruses and therefore are ineffective as a treatment for viral infections. Antiviral medications can sometimes be used, depending on the virus.



Bacteria

Bacteria are microorganisms made of a single cell. They are very diverse, have a variety of shapes and features, and have the ability to live in just about any environment, including in and on your body. Not all bacteria cause infections. Those that can are called pathogenic bacteria.

Your body can be more prone to [bacterial infections](#) when your immune system is compromised by a virus. The disease state caused by a virus enables normally harmless bacteria to become pathogenic.

Antibiotics are used to treat bacterial infections. Some strains of bacteria have become resistant to antibiotics, making them difficult to treat. This can happen naturally, but also happens because of the overuse of antibiotics, according to the [World Health Organization \(WHO\)](#).

NOTIFIABLE DISEASES

Reasons for making diseases notifiable

1. International Trade

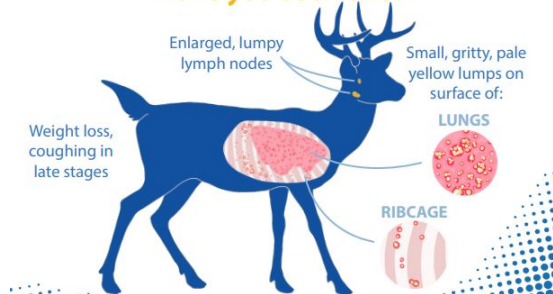
- Once a notifiable disease is identified and declared, many countries will refuse to accept animals or animal products until the situation is resolved
- Many export health certificates require confirmation of freedom from notifiable diseases
- Transparency and openness when reporting notifiable diseases ensure mutual trust between trading partners.



BOVINE TUBERCULOSIS

Bovine Tuberculosis (BTb) can affect livestock, wildlife and people.

Have you seen this?

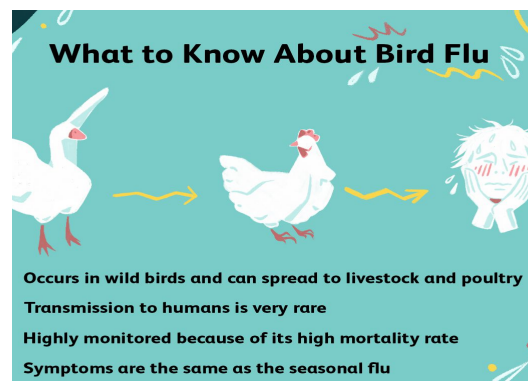


2. Public Health

- Clearly, it is essential to control any disease with significant public health risk
- Close working with the relevant public health authority is important
- Education and provision of information is very important when dealing with zoonotic notifiable disease.

3. Animal Welfare

- Some notifiable diseases cause welfare problems; for example, foot and mouth disease can cause severe pain, and rabies probably causes extreme confusion and discomfort
- Never overlook the fact that having notifiable disease confirmed in a group of animals can cause human welfare problems too.



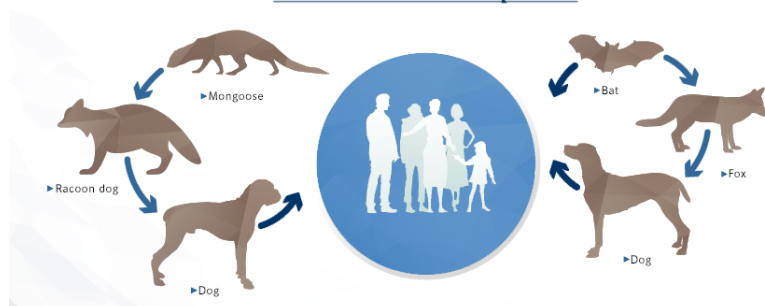
4. Wider society

- Restrictions on farms will limit other businesses, such as tourism, feed merchants, contractors and vet practices
- In some cases, disease outbreaks can generate over-reactions to animal products; for example, reduced purchase of meat due to fears about vaccine residues or contamination of meat
- The national reputation can also suffer.

Endemic and Exotic Notifiable Disease

- Most notifiable diseases are exotic.
 - They are not present in this country. Examples include:
 - foot and mouth disease,
 - rabies and
 - avian influenza
- Some notifiable diseases are endemic.
 - They are present in this country. Examples include:
 - bovine TB,
 - scrapie and
 - EBL(2) bat rabies.

How rabies can spread



PREVENTATIVE CARE

- Vaccination
- Parasite control
- Behaviour
- Neutering
- Nutrition
- Dental health
- Blood test
- Exercise
- Fecal analysis
- Heartworm medication
- Health surveillance
- Veterinary examinations

Preventative healthcare works on the 'prevention is better than cure' approach, and makes sure that animals have as much protection as we can give them against a range of problems, including some nasty diseases and parasites, unwanted litters, and loss.



Environmental enrichment is the process of manipulating the pet's environment to make it more interesting, to promote species-typical behavior, and to occupy the pet's time to minimize boredom and frustration. Enrichment enables the pet to run, play, stalk, figure things out, etc. Enrichment is vital for the welfare of all pets, whether housed in a home, in a kennel, or outdoors. Training plans (eg, puppy kindergarten or other positive reinforcement training classes or resources) can be incorporated into enrichment of the pet. Incorporating enrichment and training can enhance the bond with the owner, enable more complete grooming, and help avoid or mitigate unwanted behaviors.

Routine Care and Grooming of Small Animals

Routine care and grooming not only help maintain pet health but also enable early identification of health problems. Compared with disease in humans, disease in animals is generally identified at a later stage. Close observation of pets enables the evaluation of changes in appetite, thirst, urination, defecation, ambulation, and general behavior. Any changes may suggest the need for a more thorough examination and possible intervention. Special attention should be given to hair coat, skin, ears, eyes, and teeth. Anal sac impaction and overgrowth of nails are common problems.

Diseases:

1. It is the state of the body when it feels discomfort and unease due to the entry of pathogens.
2. Animals are infected by various diseases which are harmful to their growth.

Few measures to prevent diseases in animals are:

1. Vaccination:

1. It is the process of injecting dead microbes into the body to increase immunity.
2. Animals should be vaccinated regularly in order to prevent diseases.

2. Maintaining a hygienic condition:

1. We should maintain a hygienic environment around the animals to prevent them from various diseases.
2. A clean environment makes the animal health as they remain disease-free.

3. Providing nutritional food:

1. We should provide a balanced diet to the animals.
2. A balanced diet contains all the nutrients which are required by the animals for their normal body growth.

Unit 301 Understand and Promote Animal Health

Outcome 3 Be able to promote and maintain the health and wellbeing of animals

Assessment Criteria

The learner can:

1. Develop **plans** to promote and maintain animal health and wellbeing throughout the year
2. Implement measures to **promote** and maintain **the health and wellbeing of animals**
3. **Monitor and report** on animal health and wellbeing

Range

Animal Management – companion (dog or cat) and either small mammals (rabbit and rodents) or exotics or large mammals (goat, camelids, donkey, pig or other available large mammals)

Unit content

Plans

Animal health management plans are to record individual details, day/time, and include the following assessments: behavioural, physical and clinical with records on diet and faeces, breeding and weight. Weekly, yearly and seasonal plans with recorded measures taken to maintain and promote health

Promote the health and wellbeing of animals

Five animal needs, animal health care routines with minimum guidelines as set out by Department for Environment, Food and Rural Affairs (Defra) (England), Welsh Assembly Government (Wales), Scottish Executive Environment and Rural Affairs Department (SEERAD) (Scotland), or Department of Agriculture and Rural Affairs (DARD) (Northern Ireland), or individual animal advisory bodies

Monitor and report

Monitor animal health and management plans, record keeping, and reporting procedures for disease control

The 5 Welfare Needs Of Animals:



The need to exhibit normal behaviour patterns



The need for a suitable environment



The need to be protected from pain, suffering, injury and disease



The need for a suitable diet



The need to be housed with, or apart from, other animals

ANIMAL HEALTH PLANS

An animal health plan should consider the following aspects:

- Background information
- Record keeping and monitoring
- Preventing disease entering
- Disease reduction and control plan
- Promote positive health and natural behaviour
- Vaccinations

An animal health plan is an active management tool aimed at promoting the health and welfare of animals by setting out disease prevention, detection and management procedures. It should be based on farm specific issues and at its most basic, it should ensure that illness, injury and mortality amongst animals are at minimum levels. More progressively, it should also be seen as providing procedures that promote positive health and welfare.)

Background information

Most animal health plans start by listing some key details about your farm, such as the farm address and key farm personnel and other important farm contacts such as the farm vet and feed suppliers. Also details about your animals, such as numbers, breeds, and age of your herd or flock.

Record keeping and monitoring

In order to effectively reduce both disease and medicine use, it is necessary to understand what the current levels are, and therefore a disease recording and monitoring system needs to be in place. An animal health plan can only be fully operational once the disease recording and monitoring systems has been implemented. The information from these systems allows an accurate analysis of medicine use and the herd or flock status and a plan can be designed taking into account the specific features of each farm. It is important that a local vet is involved in health planning to ensure good understanding of the local disease situation.

Vaccinations in Health Planning

The animal health plan should list the currently used vaccines and immunisation procedures and the reasons for each vaccine use. If it is intended to reduce the vaccine usage on the farm, a clear plan of action should be established.

Promoting positive health and natural behaviour

A health plan that incorporates the “positive health” approach would need to concentrate on health rather than disease diagnosis, identification of risk factors and disease avoidance.

Routine Healthcare

- Vaccinations.
- Neutering.
- Dental care and pet dentistry.
- Microchipping.
- Flea prevention and treatments.
- Worm prevention and treatments.
- Parasite control.
- Pet Nutrition and pet weight clinics.

A healthy animal will have bright eyes, clean ears, eyes and nose and be interested in what is going on around it.

The amount of food an animal eats varies a lot between individuals – if your pet's weight remains constant then they are eating the right amount of food. You should be concerned if your pet's appetite or water consumption suddenly changes, or your pet suddenly starts to gain or lose weight.

When in good condition a pet's coat should be shiny, soft and free of parasites. Animal's skin ages (just like in people) and may become less elastic and more dry in an older pet.

To keep your pet in good condition it must be fed a healthy diet and allowed regular exercise. Mental stimulation in the form of an interesting environment and opportunities to play are also important. Many cats are allowed to range outdoors and so entertain themselves – if you do not let your cat out consider whether the home environment offers it enough stimulation and opportunities to play. Coat condition can be affected by diet. Fish oils or evening primrose oil capsules may help improve a dry coat. Groom your pet every day with a soft brush.

Regular exercise is important to keep all animals healthy. Most cats are good at regulating their exercise and match their food intake to their energy needs; dogs are less good at this.

If your pet is showing signs of stiffness when they get up from rest they may be getting arthritis. If so the exercise programme should be altered accordingly. Regular short walks will allow your pet to maintain mobility better if they are arthritic. If your pet is overweight then a diet may help improve its condition and allow it to exercise better.

A healthy diet is a balanced diet containing all the nutrients your pet requires. Dietary requirements change with age and may also be affected if your pet is

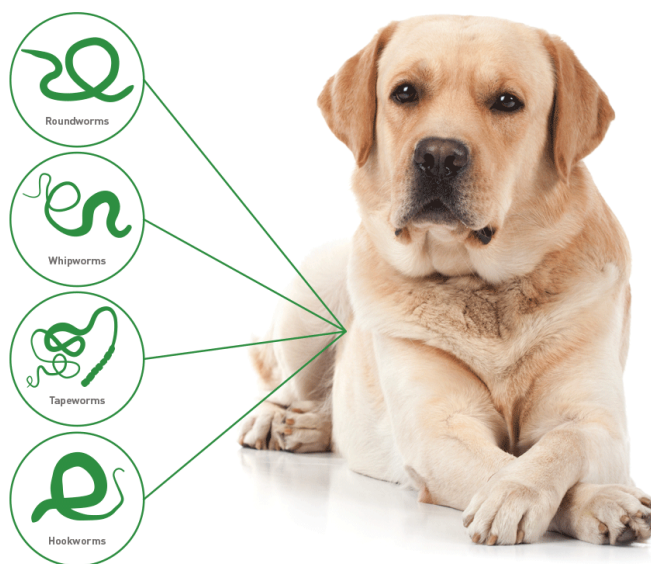
suffering from some diseases. As pets get older they may lose muscle mass and gain weight more easily.

Overweight animals have a higher risk of diseases such as arthritis, heart disease and diabetes. Check your pet's weight every 6 months to make sure it is not overweight and prevent excessive weight gain by cutting back on calories if your pet's weight increases.

There are a number of measures that can help prevent your pet developing diseases. You should discuss these options with your vet to work out the best plan for your pet.

Worming

All pets have worms at some stage in their life and many will be re-infected unless they are given regular, routine worming treatment. Except in rare cases, worms are unlikely to cause serious harm. Getting rid of worms is relatively simple and inexpensive so regular treatment with a wormer is strongly recommended, particularly as some types of worm can be passed onto humans. Make sure your pet is wormed every three months against roundworms and tapeworms. Some worms are transmitted by fleas so routine flea control all year round is important.



Flea control

Fleas are the most common parasite in cats and dogs – almost every pet is likely to be infected at some stage in its life. However, modern flea control products mean that it is possible to prevent fleas from becoming a problem in your household. Working closely with your vet, who will give you advice on how to use these products effectively, you will be able to stop these nasty little insects making a meal of your pet and you!

Neutering

It is a sad truth that the number of kittens and puppies born every year is far greater than the number of good homes that can be found for them. As a result, thousands of healthy animals are destroyed and many unwanted animals are left to fend for themselves. Having your pet neutered will not only help to reduce these numbers, it is also one of the simplest, safest and most practical ways of safeguarding your pet's health and welfare.

Vaccinations

There are a number of highly infectious and potentially fatal diseases that can affect our pets. There is no treatment for many of these diseases and young animals who catch them often die. However, for many of these conditions there is a simple protection in the form of vaccination. Ensuring that your pet completes an initial course of vaccinations and then receives regular booster jabs is important if you want them to stay fit and healthy.

Dental care

Dental disease is very common in cats and so dental care is important. Surveys show that after the age of three years, about seven out of ten cats have some kind

of tooth disorders. If left unattended these may cause irreversible damage to the animal's teeth, gums and jaw bones. Dental disease can be prevented by stopping the build up of plaque on the teeth.

A fever (increase in body temperature) is often one of the first signs of illness. If your pet has a fever they are likely to be quieter than normal and probably will be off their food. If you check your pet's temperature and find it is raised then contact your vet for advice.

Any changes in your pet's behaviour, altered appetite or water consumption, or the presence of signs such as coughing, vomiting or diarrhoea should alert you to the fact that there may be a problem with your pet. Most animals recover from illness in 24-48 hours – if your pet does not seem to be improving in this time or is getting worse then you should contact your vet.

Most owners can tell if their pet is limping or crying with pain, but it can be harder to see if your pet is suffering from a long-term discomfort such as arthritis. Cats generally show a change in behaviour or temperament when they're uncomfortable. A normally happy and affectionate pet may become grumpy and avoid human contact, preferring to sit or lie quietly by itself. If the animal can reach the painful area, they may lick, scratch, or bite at it.

Signs and symptoms of Anthrax (splenic fever)

- Staggering
- Trembling
- Depression
- Unconsciousness
- Difficulty in breathing
- Convulsions



Why vets need specific antibiotics for animal health

Science and animal welfare should always come first

No matter how well they are cared for, both farm animals and pets may get life-threatening diseases which can only be treated by an effective antibiotic.

By prohibiting the only therapeutic choice available, these animals will be left unprotected against bacterial infections, leading to unnecessary suffering and maybe even death.

Here are just a few examples:



For our cats, common urinary infections are very painful and *Mycoplasma haemofelis* infections can be life-threatening.

For our dogs, urogenital infections cause severe pain and serious skin infections cause swelling and blistering making simple movements like walking impossible.



Newborn calves are very susceptible to bacteria involved in diarrhoea during their first weeks of life which can cause severe dehydration and illness.



Young foals can pick up *Rhodococcus equi* from the soil, which seriously impacts the respiratory system and may cause pneumonia.



Unit 301**Understand and Promote Animal Health**

Outcome 4

Know how to deliver and record basic animal treatments

Assessment Criteria

The learner can:

1. Describe how to deliver a range of **basic routine** and **non-routine animal treatments** safely in line with codes of practice and legislation
2. Describe the importance of **monitoring animals** after treatment
3. Describe the methods for monitoring animals and the **records** required

Range

Animal Management – companion (dog or cat) and either small mammals (rabbit and rodents) or exotics or large mammals (goat, camelids, donkey, pig or other available large mammals)

Unit content**Basic routine treatments**

Endo parasite prevention, ecto parasite prevention, care of teeth, claws/hooves, routes of administration (topical, enteral, and parenteral). Frequency of treatment, timing, sourcing treatments e.g. where to purchase, assessing animal for adverse reactions, limitations of treatment (effectiveness) and limitations of person providing treatment (Vet Surgeons Act 1966 and Veterinary Medicines Regulations 2009)

Non-routine animal treatments

Accidents and injuries: Shock, Road Traffic Accident (RTA), hypothermia, hyperthermia, convulsions, fractures, eye and ear wounds, hoof, paw or claw wounds, choking, poisoning, abscesses, burns and scalds, bites and stings

Bandaging techniques, cleaning and dressing wounds, administering first aid and medication, sick nursing, consideration of working with an unpredictable animal and precautions to take

Monitoring animals

Observation of physical signs and behaviour, frequency of monitoring, expected recovery times/rates, knowing when to seek assistance from the vet or supervisor

Records

Veterinary records, feeding and water intake records, monitoring of clinical signs against expected recovery, frequency of defecation and urination

Endo and Ecto Parasites

Parasite prevention is an integral part of taking good care of an animal. Parasites also pose a threat to human health, as some pet parasites cause zoonotic infections, which means they can be transferred from pets to people.

Animals can get parasites in a variety of places — whether they go outside or not. Fleas and ticks can live outside year-round but are most abundant during spring and autumn. Other animals can bring parasites into your home, and once fleas get in the house, they can be a year-round problem.

Because parasites can be found all year long, it is important that the animal is always protected. Vets offer a series of popular prescription products that are easy to use and will help to protect the animal.

The harm from parasites to an animals health can range from minor irritation to severe conditions that can be fatal. Below are some common parasites found in the United Kingdom:

- **Ticks** – Tick bites can cause allergic reactions or infections at the site of the bite. They can transmit infectious diseases such as Lyme Disease, Babesia & Ehrlichiosis.
- **Worms** – There is a wide variety of worms, such as tapeworm, roundworm, heartworm, whipworm, and hookworm. These are common parasites in the UK and can affect the animals health. They also carry a human health risk, especially for children.
- **Lungworms** – Lungworms are potentially deadly parasites that are carried by foxes, slugs, and snails. It is the first fatal parasite to be endemic in the UK.
- **Fleas** – Fleas affect dogs and cats and can be seen all year round. They can also pass on tapeworms. Signs that your pet may be suffering from fleas include itching, scratching, and licking. You may also see ‘flea dirt’ – tiny dark specks that look a little like grains of soil and go red when wet. It is possible to see fleas with the naked eye!

With advances in veterinary medicine, most parasitic infections can be prevented with routine preventative care.

Alongside preventative treatments, it is also important to practice good personal hygiene, including washing hands after handling pets and before eating food. Grooming animals regularly helps to reduce the risk of coat contamination, and when going on walks, cleaning up pet faeces is vital as most intestinal worms are transmitted by worm eggs or larvae in faeces.

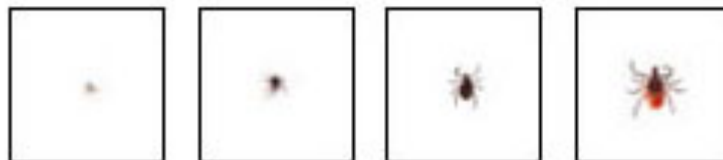
It is important to remember that parasite treatments are only to be given to the animal they have been prescribed for, as certain products can be fatal to other species.



Dog Tick
Dermacentor variabilis



Deer Tick
Ixodes scapularis



Lone Star Tick
Amblyomma americanum



What is shock?

Shock is defined as an inability of the cells to produce sufficient energy to function. This usually happens because, for some reason, oxygen supply to the body tissues is reduced.

Oxygen is carried from the lungs to the tissues by the red blood cells within the circulatory system. Conditions that affect either the red blood cells, the blood circulation or the amount of oxygen available within the blood stream can result in the development of shock.

What are the different types of shock?

Shock can be classified according to the underlying cause:

Hypovolemic shock

Hypovolemia literally means a low blood volume. In this form of shock there has been a loss of blood circulating within the body. This is commonly seen in animals that are bleeding, either internally or externally. Most common causes are traumatic events like road traffic accidents, gunshot injuries, a fall from a height or due to a problem with the blood clotting system. It can also be seen in animals that have lost a large amount of body fluids rather than blood (ie animals with profuse vomiting and diarrhea or extensive burn injuries).

Cardiogenic shock

In cardiogenic shock there is an underlying problem with heart function. There is poor circulation due to the heart not pumping the blood through the body effectively. Typical examples are animals with severe heart disease or with very irregular heart rhythm.

Distributive shock

Distributive shock means that there is the correct volume of blood, but it is not correctly distributed throughout the body. It usually occurs due to an abnormal dilation of the blood vessels. Rather than the blood flowing normally through the body and back to the heart and the lungs where it can get oxygenated again, it tends to 'pool' in the blood vessels. This type of shock is typically seen in anaphylaxis (ie severe allergic reactions), excessive heat exposure (ie 'heat stroke') or in severe infections that result in sepsis and septic shock (ie pyometra or womb infection in queens or an abscess which may be deep inside the body).

Obstructive shock

As the term indicates, this type of shock occurs due to an obstruction that prevents the normal blood flow to or from the heart. This could be a blood clot within a vessel or external compression of the vessel such as a severely bloated stomach that presses on big abdominal veins or fluid accumulation in the chest

Pet Poisoning Information

No matter how diligently you work to minimize the risk of pet poisonings, not all accidents can be prevented. Being as ready as possible for a worst-case scenario is just as important as prevention.

In the Event of a Pet Poisoning



DON'T PANIC!



TIME IS CRITICAL.
YOUR FIRST STEP SHOULD BE A CALL TO A QUALIFIED SOURCE OF HELP



GATHER ALL MATERIALS
RELATED TO THE POISONING



IF APPLICABLE,
SEAL YOUR PET'S VOMIT OR STOOL IN A BAG FOR TESTING



KEEP TRACK OF ALL THE SYMPTOMS
YOU OBSERVE AND THEIR TIMELINE



NOTE HOW MUCH OF THE TOXIC SUBSTANCE YOU BELIEVE YOUR PET WAS EXPOSED TO AND WHEN THE EXPOSURE OCCURRED.



WHEN CALLING A PET POISON CONTROL HOTLINE OR OTHER SOURCE OF HELP, BE PREPARED TO PROVIDE THE ABOVE INFORMATION, ALONG WITH BASIC DETAILS ABOUT YOUR PET. IDENTIFY YOUR PET'S SPECIES, BREED, SEX, AGE, AND WEIGHT. IF MULTIPLE ANIMALS ARE AFFECTED, COMPILE SEPARATE INFORMATION FOR EACH ONE.

Pet Poisoning Preparedness Kit

- A **pet carrier** for easy transport to your vet's office or animal hospital
- **Phone numbers** for an animal poison control hotline, your vet, the nearest animal hospital, and the nearest 24-hour animal hospital
- A bottle of 3% USP **hydrogen peroxide** to induce vomiting, along with a baster or oral syringe for administration
- **Saline solution** to flush the eyes and artificial tears to lubricate them afterwards
- A mild degreasing **dishwashing liquid** to remove hazardous substances on the skin and coat
- **Tweezers** to remove stingers or objects embedded in the skin
- A **muzzle** for safety when your pet is agitated, afraid, or stressed
- A can of your pet's preferred **wet food**

Poison-Proofing Your Home

When poison-proofing, keep these facts in mind:

- **Ingestion of human drugs and supplements** is the leading cause of calls placed to animal poisoning hotlines
- **Pets will potentially eat or drink anything** with a scent that catches their attention
- Cats, dogs, and other animals demonstrate surprising ingenuity, resourcefulness, and determination when exploring surroundings or trying to get something they want
- Almost all **chemical cleaning products** contain at least one hazardous component
- Most **pest control products**, whether they are made for pets or not, are poisonous
- Numerous **common indoor and outdoor plants** are toxic to animals
- An estimated **10,000 cats and dogs** die each year from ingestion of antifreeze, commonly found in puddles outside

