



Welcome to the safe@work Veterinary Module.

Have you read the General Module, completed the test and gained your safe@work General certificate?

The Veterinary Module should be done AFTER the General Module or Review Module.

If it is some time since you have completed the General Module you should read the Review Module. The test for the Veterinary Module contains some questions based on the Review Module.

There are common hazards in the veterinary industry. It is important to learn about these hazards and how they can be controlled so people at work are not exposed to risk.

The Veterinary Module contains information on:

- Animals
- Hazardous Substances
- Radiation
- Sharps
- Manual Handling
- Slips, Trips and Falls
- Biological hazards
- Zoonotic Diseases

Working in a veterinary practice, you may be instructed to carry out work such as:

- feeding and grooming animals
- weighing animals to update their medical records
- restocking food and other items
- cleaning out cages and litter trays

Your employer must explain each task *before* you start work on it. You must be provided with instruction, training and supervision. You must know the first aid and emergency arrangements too, so if anything goes wrong you will know what to do.

Key Point

It is important that your employer has taken action to control risks. You must know and follow safe working procedures – not just for your own safety, but also for the safety of others working with you.



Animals

Handling animals is an essential part of working in a veterinary clinic. Veterinary nurses and other staff are trained to assist in medical and surgical procedures for animals. They also have experience dealing with animals in pain or distress, which may be liable to bite or scratch as a result of fear.

Animals may be kept at the clinic following surgery, or while undergoing tests to diagnose illness. These animals must be fed and provided with water and clean litter trays. Most veterinary clinics offer animal boarding facilities while their owners are on holiday, and many clinics also provide bathing, grooming or nail clipping services.

A survey in the United States has shown that 3 out of 4 injuries in veterinary practice are caused directly through contact with animals (this includes birds, reptiles and insects). Most of these injuries were caused by bites. While dogs are more likely to bite than cats, a cat bite or scratch is more likely to cause infection.

As animals must be handled in veterinary practice, and as their behaviour is not always predictable, there is no simple risk control which will eliminate the hazard entirely. Avoiding incidents with animals is best managed by a combination of:

- assessing the animal before any attempt is made to handle it – this may include discussion with its owner about its temperament and the likelihood of the animal becoming aggressive
- training – appropriate techniques for approaching and handling animals must be understood by all workers who will come into contact with them
- experience – inexperienced workers should never be asked to handle an animal which may bite or scratch until they have gained an understanding of when and how this is likely to happen
- use of personal protective equipment (PPE) such as thick gloves and forearm protection if an animal is distressed or aggressive. It may be necessary to tranquillize the animal before it can be treated or moved.

Trained and experienced workers will be more capable of approaching an animal confidently and calmly. This is important, as animals will react to what they may interpret as aggressive behaviour if a worker is hesitant or afraid. There will be occasions when a second person – another worker or the owner of the animal – is required to calm the animal to enable examination or treatment.

Key Point

If you are unsure about the likely behaviour of any animal, leave it to more experienced workers to approach and handle it.

If a bite or scratch does occur, standard first aid procedures must be applied.



Your employer must:

- assess the likely behaviour of any animal before less experienced staff members are asked to approach it
- have a system in place for safely handling animals which have been injured or are distressed
- train you in the procedures established to enable safe work with animals. If you are in doubt, ask your employer or supervisor for instruction
- provide any PPE you may need, such as gloves and overalls

In large animal practices (such as those treating farm, wildlife park or zoo animals) there are specific handling and treatment procedures which will be applied in different environments. Away from the veterinary clinic, inexperienced or untrained workers should not be asked to work with animals.

Obviously, many animals which have not been domesticated cannot be approached until they have been tranquillised from a distance. This requires specialist expertise, training and experience, and inexperienced workers must never be placed in a position where these animals could attack them.

Some people suffer allergies to certain animals. Exposure may trigger asthma attacks, eye and nose irritation or allergic skin conditions. Washing your hands with soap and hot water after handling animals is important. If you suffer any reaction of the kind described above, you must inform your employer or supervisor without delay.

Hazardous Substances

There are many hazardous substances which must be used in veterinary practice including animal medications, anaesthetics, sterilising chemicals, cleaning products and solvents.

Injuries caused through accidental exposure to hazardous substances include poisoning of specific organs or of the whole body, chemical burns, eye irritations, respiratory problems and skin conditions such as contact dermatitis.

Long term exposures can in some cases lead to the development of cancers. Many chemicals are now known to be carcinogens, or cancer-producing substances.

Your employer must make sure hazardous substances are used according to the manufacturer's or supplier's written instructions (in the form of a material safety data sheet, or MSDS) and the safe working procedures in place at the veterinary clinic.

Hazardous substances must be stored securely and labeled clearly. A number of the substances used in veterinary practice must be kept in locked storage and accessed only by veterinary practitioners.

Employers must make sure employees are properly trained to understand the nature of the hazardous substances present in the workplace, and to follow agreed practices for their handling and storage.



Key Point

Your employer must make sure you have read and understood the material safety data sheet (MSDS) for any hazardous substance you are required to use.

While access to the chemicals and drugs used for animal treatment will be limited to trained veterinary staff, you may be asked to use solvents, disinfectants and cleaning chemicals to perform routine tasks. These too are classed as hazardous substances, and you may need to wear gloves and other PPE to carry out cleaning tasks.

Radiation

Note: Students in work experience programs must **NOT** be exposed to radiation. This information is designed to give students an understanding of the hazard and some of its risk control measures.

Radiation causes ionizations in the molecules of living cells. At low doses, such as we receive every day from background radiation, the cells repair the damage rapidly. At higher doses, the cells might not be able to repair the damage, and may either be changed permanently or die.

The body is able to replace most cells that die, but cells changed permanently may go on to produce abnormal cells when they divide. These cells may become cancerous. This is the origin of our increased risk of cancer as a result of radiation exposure.

The use of x-ray equipment in veterinary clinics is essential for diagnosis and treatment of illness and injury in animals. Potential employee exposures to radiation must be safeguarded against, and only qualified persons will be permitted to be involved in x-ray procedures. Unless assistance with an animal is needed, no individual other than the operator should be in the x-ray room during exposures.

If an animal is held in position during radiography, mechanical supporting or restraining devices should be available and used where possible. If the animal is held by an individual, that person must be protected with appropriate shielding devices (protective gloves and apron), and positioned so that no part of their body could be in the path of the x-ray beam.

In addition, the radiation exposure of any worker who carries out this job must be monitored. No person should routinely be asked to hold animals for x-ray. In the majority of cases, animals will be anaesthetised prior to x-ray, so there will be no need for any person other than the operator to be in the room.

X-ray rooms should be provided with sufficient radiation shielding, and veterinary x-ray facilities should be inspected every three years.

Key Point

Radiography is an important tool in diagnosis and helps to determine treatment, but radiation hazards are significant and safety procedures and practices must be strictly followed.



Sharps

Note: Students in work experience programs must **NOT** handle sharps. This information is designed to give students an understanding of the hazard and some of its risk control measures.

'Sharps' include syringes used to inject drugs, to take samples of body fluids (such as blood for testing), and to tranquillise or anaesthetise animals in veterinary practice. They are also used in euthanasing animals.

Other sharps in veterinary practice include scalpels used in surgical procedures. These, like syringes, present significant health risks if not handled and disposed of with great care. They may be contaminated with animal blood and other body fluids, or with unknown substances.

Sharps must always be disposed of into a clearly labeled and appropriate sharps container. The container must be puncture resistant and leak proof. It must have a lid or top which can be securely closed, and must carry a "biohazard" label.

These should be replaced when they are only three-quarters full, to prevent people from forcing used sharps into a near-full container and risking injury. Sharps should be placed in the containers using tongs or tweezers – *not* with the fingers.

Key Point

You must report any sharps-related injury to your employer or supervisor immediately. Veterinary practices will have procedures to limit potential harm from accidental contact with sharps.

There are some standard procedures for treating blood and body fluids. The basic steps will usually include the following:

- gloves should always be worn where your hands could come into contact with potentially infected material (such as animal blood and body fluids)
- your hands must be washed with soap and water immediately after glove removal
- cleanup must be done in a way that will minimise splashing or spreading of droplets
- if some splashing may be unavoidable during cleanup, additional PPE (eye and face protection) should be used
- a solution of 1:10 bleach to water (or other approved disinfectant) should be used to disinfect surfaces and equipment (including cleaning equipment) where body fluids have been spilled.

Manual Handling

Lifting animals, replenishing stocks of tinned and dry food, stacking boxes – these are some examples of manual handling tasks you may have to do in the veterinary industry. At times, your work tasks may involve bending and stretching as well as twisting sideways, or working with materials and equipment above shoulder height. All of these increase the risk of manual handling injury.



It is your employer's responsibility to assess and control manual handling tasks that may present risk, and to provide instruction, training and supervision for manual handling activities.

Risk controls may include:

- organising the work to reduce the number of manual handling tasks involved
- providing mechanical lifting devices such as trolleys and hoists where appropriate
- making sure you do not work long shifts involving manual handling activity
- making sure the workplace layout allows enough space to move and work safely and comfortably

Key Point

You must talk to your employer or supervisor if you find a job is too heavy or too difficult, or if you feel it may put you at risk of injury.

Slips, Trips and Falls

A slip, trip or fall can result in serious injury: neck and head injuries can cause damage to the spinal cord and nervous system. Many employees have suffered permanent disabling injuries as a result of a fall.

Your employer can reduce the risk of slips, trips and falls by providing suitable non-slip floor surfaces, good lighting and safe work procedures. In some work places, floor surfaces can be chemically treated to increase traction and ramps provided where floor levels change.

Key Point

Slippery floors in the work place are a serious hazard and can result in far more serious accidents than simply slipping and falling over.

You must follow instructions and safe work procedures provided by your employer, which may include:

- cleaning all spills immediately
- making sure there are no trailing electrical cords on the floor
- keeping floors and walkways free of boxes and rubbish

Biological Hazards

Exposure to some micro-organisms can result in severe infections, allergies or toxic effects.

Biological agents can cause three types of disease: infections, allergies, and poisoning (or toxic) effects. Pathogenic micro-organisms can enter the human body by penetrating damaged skin, or by settling on mucous membranes. They can also be inhaled or swallowed, leading to infections of the upper respiratory tract or the digestive system.

Whenever people are in contact while working with natural or organic materials like soil, clay, plant materials or substances of animal origin (fur, blood and other body fluids or



excrement), they may be exposed to biological agents. Anyone exposed to these organisms in a veterinary environment is also at risk.

Cleaning animal cages and litter trays can expose you to the risks of illness, if not done carefully. You should be provided with disposable gloves, and with bags in which to place the contents of soiled litter trays before placing it in bins or skips for collection.

Key Point

Personal hygiene procedures are essential to maintaining health and safety of workers in the veterinary industry.

Even when you have been wearing disposable gloves for clean-ups, you must still wash your hands immediately afterward, with soap and hot water. Your employer should provide clothing – overalls, apron or other suitable apparel to protect your 'street clothes' – which can be changed after cleaning jobs which could expose you to biological hazards.

Zoonotic Diseases

Zoonotic diseases are diseases carried by animals which can be transmitted to humans. In small animal veterinary practice, there are a number of these which must be guarded against.

They include cat scratch disease (*bartonellosis* , sometimes called 'cat scratch fever'), cat bite abscesses, *leptospirosis* (a bacterial disease in dogs) and ringworm (*dermatophytosis*).

Birds can transmit *chlamydiosis* , a bacterial disease most common in cockatiels and parakeets. The incidence of this disease is relatively low among pet birds, but an infected bird can transmit the disease to humans.

Fleas and ticks feeding on infected animals can also transmit infections. Flea infestations must be treated, to lower the risk of transmission to humans.

Key Point

If they have any open wound on hands or fingers, veterinary workers should wear gloves when handling animals. Hands must still be washed afterwards with soap and warm water.

Self-Assessment Questions

Now try the self-assessment questions.

There are 16 questions. If you get 12 or more correct you will be awarded a safe@work Certificate. The Principal of your school will then sign the certificate and validate it with the school stamp.