Curaçao
Heart Foundation

Act, Support & Save

First Aid & CPR for Cats and Dogs

Dedication

This information is dedicated to all the pet lovers and pet parents.

Introduction

This course has been created in cooperation with the cooperation of the Veterinary Doctor, who works at the animal shelter on the Island of Curacao. The course is meant for people who wish to learn how to take care of animals and how First Aid can apply to animals. Before we begin learning First Aid, it is important to know how the daily care of an animal should be. This book is an emergency preparedness ready-reference for dogs and cats. Wise preventive measures, intelligent use of first aid principles, coupled with recognition of abnormal symptoms and treatment of disorders, diseases, and problems, lead to effective health care.
A working knowledge of this information will help you eliminate some potentially dangerous circumstances and help you prepare for emergency situations. It includes information on what to do and what not to do in specific emergency situations.
The authors encourage careful reading and occasional review.

Thank you

A Big Thanks to the people who helped make this project a reality:

Veterinary Doctor:

Curacao Heart Foundation Volunteers:
Henriette Walle, Peter Damiana, Verrien Martina, Maurice Walle, Vrandall Martina, Kevin Boekhoudt.

Table of contents

1. Preventing a Health and Safety Crisis

This section discusses prevention of health and safety crisis.

Nutrition and Feeding

Good nutrition is essential for a healthy pet. Nutrients in pet foods should provide what is needed for metabolic body processes and should help fight off disease.

Proper feeding habits with nutritious food on a regular schedule can prevent:

- Disease
- Nutritional deficiencies
- Irritation or malfunction of the digestive system

Improper feeding habits can cause or contribute to:

- Obesity
- Dental disease
- Heart disease
- Liver disease
- Pancreatitis
- Arthritis
- Inflammation and/or bleeding in the intestines

Many animals die each year from such diseases. Avoid table scraps, high fat foods, and foods that cause choking. Your pets should be offered foods developed for them or recommended by your veterinarian.

Provide Plenty of Clean Water

All animals, especially the very young and the very old, are susceptible to dehydration and kidney disease if deprived of water, quickly leading to serious complications.
Nutritious food and clean, fresh water are important to your pet's health!

Avoid Vigorous Exercise after Meals

Vigorous exercise after meals can lead to a life-threatening condition called bloat, which affects all breeds of dogs, but large, deep-cheated dogs are affected more frequently. With early and aggressive medical and surgical treatment, 80% or more of these patients survive this horrible disease.

Safe Environment

Unsafe situations may occur in your pet's surroundings, even with animals who are confined to the house or an outside run. A responsible pet owner should always have control of their pet and their pet's environment. Injury or death after being hit by a car or being attacked by another animal can be prevented if your pet is properly controlled. Your pet may be shot or injured if allowed to wander unrestricted. Controlling your pet and providing a safe home can eliminate several dangerous situations.

Temperature

Animals have more problems in hot environments than in cold. Pets can suffer heat prostration and die in a short period of time, even minutes, under severe conditions. Good ventilation is vital. Animals cool themselves by panting, which becomes inefficient in extreme heat, poor ventilation, or when dehydration causes a lack of moisture on the tongue. It is never acceptable to leave your pet in the car, even for a short time, even with the windows partially open. In the summer, the car's interior can quickly rise to over 150°, and your pet's body temperature may rise to 110° or more, causing irreversible brain damage and/or death within minutes.

Exercise

Your pets need room to move around safely to get exercise. Provide an area with adequate room, shelter, and bedding that can be cleaned. Lots of space to exercise, some toys, and clean, comfortable bedding are some simple things that can add years to your pet's life.

Leash Choking

Confinement created by a chain tied to a post or a cable can result in death by suffocation if the chain becomes too tightly wrapped around the post or around your pet's neck.

Proper Identification

Remember to have ID on your animal; people will usually return your pet if your phone number is provided. Also, if your animal is injured and transported to a veterinarian by someone else, the doctor can reach you for medical decisions.
Proper identification tags will help you recover your pet if he wanders off.

Electric Cords

Electric cords should be inaccessible to pets, especially puppies and kittens, who tend to chew on anything. A bite through the insulation can result in a serious burn, fluid accumulation in the lungs, or death.
Dangling electric cords are an irresistible (but dangerous) temptation to a playful kitten or puppy. Make sure all cords are inaccessible!

Choking

Many common household items can cause your pet to choke:

- String
- Needles & Thread
- Hosiery
- Garbage
- Balls
- Yarn
- Socks
- Bones
- Gristle
- Small toys

These items should be kept away from pets, as ingestion may cause foreign body blockages or injuries to the esophagus, stomach or small intestine. Make sure that small household items are kept in a place where your pets can’t reach!

Poisoning

Accidental poisonings can be tragic. Guard against ingestion of:

- Garden Supplies: such as insecticides, fertilizers, and snail bait.
- Poisonous Plants: Many plants in their live or dried forms are toxic. Even food items like dried onions can cause problems in pets. Discuss potential problems with your veterinarian or check with the nursery or a more complete reference before buying plants.
- Pennies: Some pennies contain zinc, which can cause vomiting, anemia, and even death if ingested.
- Chocolate: As little as one ounce of unsweetened (Baker's) chocolate may poison a small dog. Milk chocolate isn't as toxic, and if ingested in reasonable quantities there is no cause for alarm. Many dogs, however, ingest unreasonable quantities and may be poisoned.
- Antifreeze: Antifreeze has a sweet taste to dogs and cats, and they may lick it off the ground. As little as one teaspoonful (easily available from a radiator boil over) can lead to irreversible kidney damage and death in a small dog or cat.
- Medications: Some medications that are safe for us are not safe for pets: Tylenol (acetaminophen) is deadly poison to cats; No-Doz may cause convulsions in both cats and dogs; Solarcaine may cause anemia in cats; Advil (ibuprofen) may cause kidney damage or gastric ulcers in dogs.

Ask a professional before administering drugs of any kind to your pet.

Travelling

Animals must be contained while riding in a car or truck. Cats jump out of cars quickly. Put them in well-ventilated pet boxes. Dogs can be trained to a seat belt. We recommend that dogs not ride in the back of trucks. In some states it is illegal for a dog to ride in the back of a pick-up truck without tethers. Besides the risk of injury from a fall, the dog may be killed in traffic. Even properly tethered dogs have little protection in the event of an accident.
If your dog must travel in the back of a pick-up, then he should be securely tethered in or in an approved vet car carrier/crate tethered in.

Regular Veterinary Check-Ups

Regular veterinary examinations will help avoid some preventable disease problems and permit early detection of others, thus facilitating treatment. Your pet should be seen by your veterinarian at least once a year. During the check-up regular vaccinations are given and the animal is given a physical exam, a dental check-up, and teeth cleaning.
Your pet's annual/ physical is vital to her continued good health.

Vaccination Programs

Many dangerous infectious diseases can be prevented or lessened in severity with a proper vaccination program. No vaccine is 100% effective, but regular vaccinations are the most effective way to prevent such diseases. Approved vaccines are available for the following diseases:

Dogs:

- Rabies
- Distemper
- Parvoviral Enteritis
- Coronoviral Enteritis
- Hepatitis Leptospirosis
- Parainfluenza/Bordetella
- Lyme Disease

Cats:

- Rabies
- Panleukopenia
- Rhinotracheitis
- Caliciviral Pneumonitis
- Feline Leukemia Virus
- Feline Infectious Peritonitis

With so many formerly deadly diseases now preventable by vaccination, you owe it to your dog or cat to make sure she is up on her booster shots. Consult your veterinarian for the vaccines needed in your area and a proper vaccination schedule.

Dental Health

Dental problems that go untreated not only cause problems in the teeth and gums, but their effects may extend to other areas of the body.
Infections from decaying teeth may spread directly to the sinus cavities or the eyes.
Bacteria from dental infections and/or plaque accumulation may spread to the heart, liver, kidneys, or other organs.
Good oral hygiene and regular veterinary examination and treatment can eliminate dental problems.

Dental health and good overall health go hand in hand.

Prevention: A Final Note

Seek professional veterinary help immediately if your pet suffers an accident or illness. Getting help early prevents complications and more suffering. Waiting can only result in undue worry, serious deterioration of conditions, and make recovery more difficult.

2. What is First Aid?

First aid is the immediate care given to a pet that has been injured or is suddenly taken ill.

The Goals of First Aid for Animals are:

- Lighten the suffering of the Animal.
- Save the life of the animal.
- Prevent the worsening of the animals symptoms.
- Promote recovery of the animal.

The immediate care includes:

Primary Survey and Resuscitation: The primary survey is the first impression the first aid provider has of the situation, and the immediate action that is taken. A well-informed owner will be able to make a quick assessment of the scene and a quick examination of the victim. Immediate attention is given to the animal's level of consciousness, airway patency, breathing, and circulatory functions (including pulse). Resuscitation is the prompt treatment of life-threatening problems.

What to check and maintain:

Circulation: If you cannot feel a pulse in the groin, try to feel it on the chest. You can also place your ears against the chest of the animal and try to hear the heartbeat. If you do not hear or feel anything, begin with CPR. How to do CPR will be explained in Chapter 8. Always keep an eye on the heartbeat.

Respiration: If you cannot see or feel any breathing (you can place your head at the snout of the animal to hear if it is breathing) check first to see if there is anything blocking the airway, like a tight band or something in the throat. If there is something in the throat, try to remove it. If the animal still cannot breathe by itself, begin with rescue breathing. How to do rescue breathing will be explained in Chapter

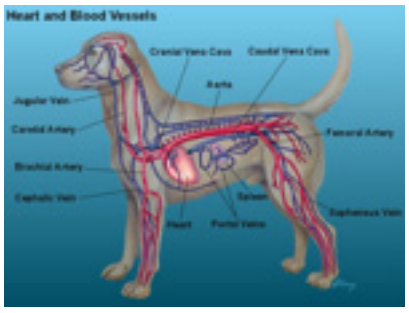
Arterial Bleeding: By arterial bleeding, bright red blood comes out like rhythmical spouts. This is on the rhythm of the heart. This bleeding must be stopped immediately. You can do this by pressing the wound with a dressing. You can also use a tourniquet. This will be taught in the section Bandaging. An internal bleeding you cannot see cannot be treated. Only the Vet can take care of this.

Treating Shock:

What is Shock? In 1872 S.D. Gross defined shock as “a manifestation of a rude unhinging of the machinery of life.” A recent veterinary textbook defines shock as “the clinical state resulting from an inadequate supply of oxygen to the tissues or an inability of the tissues to properly use oxygen.” Many attempts have been made to define shock, but because it is such a complex disorder, no single definition has been successful.

Shock and the Cardiovascular System: To gain a basic understanding of shock, one must first have an understanding of the normal cardiovascular system of dogs and cats. Envision the cardiovascular system as the closed circuit diagrammed on the following page, consisting of a pump (the heart) and a series of stretchable tubes (blood vessels). The system is filled to capacity with a fluid (blood) which circulates through the tubes delivering fuel (oxygen and other metabolic substances) and picking up trash (carbon dioxide and other metabolic waste). In order to be efficient, the pump must be able to deliver a proper amount of the fluid and there must be enough fluid to completely fill and stretch the system of tubes. An insult to any part of this system that results in lower fuel delivery, excess fuel burning, and/or excess waste accumulation may result in a condition analogous to shock.

The Circulatory System



Oxygenated blood leaves the heart through the left ventricle (A), and circulates to the body (F) through the arterial system where its precious oxygen is distributed. The deoxygenated blood then travels to the right atrium (C) and the right ventricle (D) of the heart, where it is pumped to the lungs (E) to pick up more oxygen. The newly oxygenated blood returns to the heart via the left atrium (F), travels to the left ventricle, and the circulatory cycle begins all over again.

An animal who has been hit by a car is in danger of suffering life-threatening shock.

Shock will ultimately lead to involvement of the entire cardiovascular system and, if left unchecked, will result in the death of the pet. For example, if a pet has been hit by a car and sustains injuries that cause blood loss, there will be a deficiency in the fluid that carries fuel. The pump (heart) operates on this fuel. Since an inadequate fuel supply is being delivered to the pump, it begins to fail. As the pump fails, it is unable to circulate the fluid that is present, so even less fluid is delivered. Without adequate fuel, the blood vessels become inelastic and are less efficient in fluid movement -- again, less fuel. Eventually, these events will result in total collapse of the cardiovascular system and the death of the pet.

Causes of Shock: The most common causes of shock in our pets is trauma: e.g., fights with other animals, being struck by a car, and gunshots. Other causes include poisoning, insect stings, fluid loss from vomiting and/or diarrhea, infections, burns, and lack of oxygen caused by heart failure or obstruction of airways (pneumonia or choking, for example). Regardless of the cause, shock is life-threatening. Immediate identification is crucial.

Signs of Shock

- Early Stages of Shock
- Pink gums.
- Very rapid capillary refill time.
- The pet may be either excited or subdued.
- Rapid heart rate.
- Pulse not difficult to find.
- Rectal Temperature normal (38C - 39C)

Middle Stages of Shock

- Gums appear pale or “muddy”.
- Abnormally long capillary refill time.
- The heart rate is frequently above normal.
- The pulse weakens and may be difficult to locate.
- The pet will most likely be subdued, depressed and weak.
- Respiration often shallow and rapid (but may be normal).
- Rectal temperature often below normal (may be normal or even elevated).

Late Stages of Shock

- Gums extremely pale or show a bluish discoloration, and are often “blotchy” in appearance.
- Capillary refill time is longer (sometimes longer than 3 to 4 seconds).
- Heart rate is probably elevated and irregular, but may be normal or below normal as heart muscle begins to fail.
- The pulse will be very weak and difficult or impossible to locate.
- Respiration may be slow or rapid, shallow or deep.
- The eyes may take on a glazed appearance and appear not to focus normally.
- Mental condition deteriorates from depression to stupor to coma.
- Rectal temperature will be below normal, often critically so.

Treatment of Shock: What to Do: Successful treatment of a patient in shock involves prompt recognition of the signs, immediate initiation of first aid procedures, and safe and rapid transport to the veterinary facility for definitive treatment.

- First aid procedures include:
- Providing adequate breathing (see CPR).
- Stopping blood loss (see bleeding).
- Immobilizing the pet.
- Protecting obvious fractures from further injury (see splints).
- Preventing loss of body heat by covering the patient with one or more blankets.
- Immediately transporting the patient to a veterinary facility for definitive treatment of shock and other injuries and illnesses (see transport).

Treatment of Shock: What Not to Do: Well-meaning pet owners often use first aid procedures that may seem helpful, but, in fact, may prove dangerous to the animal.

Do not allow the injured pet to move about without supervision. Walking about or any unnecessary movement (especially allowing the pet to jump in or out of the transport vehicle) may increase internal bleeding. Unnecessary use of muscles “burns fuel”, which can be fatal to a patient in shock.

Do not apply a heating pad to a sick or injured patient. He may suffer a severe burn. In addition, application of heat will cause the vessels of the skin to dilate. These dilated vessels require more blood to fill them and decrease

the efficiency of the already failing cardiovascular system, resulting in worsening of the shock condition.

Do not pour water (or anything else) into the animal's mouth. Animals in shock are weak and may inhale anything given by mouth into the lungs, causing a serious complication.
Do not administer any medications (including aspirin or other pain relievers) unless instructed to do so by a veterinarian.

Do not assume the pet is not in shock after an accident. Early, mild stages of shock are difficult to recognize, and the pet may deteriorate rapidly if not treated.

Do not hesitate in seeking veterinary assistance. Many injuries and illnesses that cause shock may cause irreparable damage in minutes. Any hesitation could mean the difference between a pet making a full recovery and a pet that cannot be saved.

Treat cerebral symptoms:

There are two types of cerebral symptoms:

- Epileptic attack
- Unconsciousness

In both cases, you must admit the animal to the Vet as soon as possible. You personally cannot help the animal. The best way to lay an unconscious animal is in the chest-abdomen position. This is a position that will help the animal breathe easily.
In case of an epileptic attack, you can try to tranquillize the animal. If you notice that the tremors worsen when the animal is spoken to or touched, avoid stimulations as much as possible. Make sure there are no objects that can harm the animal in the vicinity. If you approach the animal, it may want to bite you. This happens unconsciously, so your own pet can bite you. Place a muzzle on the animal and transport to the Vet as quickly as possible. These attacks are very exhausting for the animal and can be fatal if it persists.

Secondary Survey and Definitive First Aid

The secondary survey consists of an examination and assessment of the animal's eyes, ears, nose, neck, chest, abdomen, back, extremities, and rectal temperature and the procedures to stabilize and protect the animal from further harm.

What to check?

- Mucous Membrane: check the gums. See if they have a beautiful pink color, if they are moist enough, or there is no visible bleeding and if you manage to press it, the pink color returns within 1 second.
- **Pulse:** You can feel this on the inside of the groin. If you apply a little pressure in this area, you will feel a kind of tube running. The pulse is then assessed for:
    - Strength: is each beat equally strong
    - Regularity: is there always the same length of time be tween beats
    - Symmetric: are left and right the same
    - Synchronously: a pulse precedes a heartbeat

Mark the time and count how often a minute you feel the pulse (you can also count for 15 sec. and then multiply this 4 times).

- **Breathing:** Count the number of times the animal breathes in and out. You can see this on the flaks (sides) of the animal, where the ribs are. It is also important to see if the animal's breathing is regular. An animal can have different types of breathing, namely chest-abdomen, abdominal only, chest only or oscillating. Even this is important information for the Vet.

- **Reflexes:** The Vet can get lots of information if the reflexes of an animal are not good. The first reflex that is taken is the pupil reflex with a lamp (placing your hand over the eyes to make it dark and then removing to let light in can also be done). If this reflex does not work, most of the time the animal already dead. Hereafter you can check the eyelid reflex. The eyelids should always close when there is something near the eye.

The withdrawal reflex can also be
tested. For the withdrawal reflex, pinch the skin between the toes of the animal. The animal should withdraw its leg. You can also place the legs over each other. The animal will place the leg back in its original position. If the animal is standing on the table, you can let one leg hang at the edge. The animal will put the leg back where it was.

Animal	Temperature (°C)	Breathing (per min)	Pulse (per min)
Dog	38-39	10-30	60-120
Cat	38,5-39,5	20-40	120-180

- **Temperature:** It is also wise to measure the temperature of the animal, because even this could make you draw conclusions. Please find the normal values in the table below.

Transport

Many emergencies will require professional help. Knowledge of the proper way to transport the pet to a veterinary medical facility for professional care can prevent further injury, protect the owner from dangerous situations, and allow for timely care.

Injured animals cannot always be placed in a car for transportation to the Vet.

We should take into consideration the type of animal, if they can walk themselves. A cat has to be treated differently from a dog. A cat should be placed in a basket (with cloth/newspaper) so it can find a comfortable position itself to lie down. Dogs on the other hand, which can walk, let them do so themselves. They will feel better and less stressed. It would be advised to help the animal climb into the car, which is sometimes too high for them. The animal can find a comfortable themselves to lie in the car.

Animals that cannot walk themselves can be transported in different ways. This has partly to do with the size of the animal. A small animal can easily be carried in your arms, a basket or box. You should always support the animal at the front and back when you are going to lift them up. If the animal is too big to lift, use a stretcher. This can be made with wood sheets of doors. Lift the animal with more people to avoid back injuries to yourself. Pay attention during transportation to the vet that the animal remains stable, and keep talking to him. Drive carefully so that the animal does not get tossed around in the car by every bend.

First Aid Kit

Emergency supplies are a necessity. The following list will help you assemble the resources you need.

- 1” and 2” adhesive tape
- 2” roll gauze (for muzzle)
- newspaper
- rectal thermometer
- Chlorhexidine or Povidone iodine (antiseptic)
- Elizabethan collar
- eye wash (saline in a squirt bottle)
- isopropyl alcohol 3% hydrogen peroxide (or syrup of ipecac)
- 2” and 4” gauze
- 3” x 3” or 4” x 4” gauze pads
- scissors - cotton balls and Pledgets
- blanket with heat pack
- flat transport surface
- plastic food wrap (e.g., Saran- Wrap)
- petroleum or K-Y jelly
- ice pack
- activated charcoal
- tweezers
- bulb syringe

A complete first aid kit for your pet is a must.

Preparedness Phone Numbers

In a convenient location, make a list of important phone numbers that includes the phone numbers of the following:

- Your veterinarian
- Your veterinarian’s emergency (after-hours) number
- Your nearest 24-hour veterinary emergency facility
- Your local poison control center
- National poison control centers

Emergency numbers should be kept near your phone for easy access. Update numbers as necessary.

General Directions for First Aid

A wide variety of problems arise that require first aid skills. Decisions and actions vary according to the circumstances, including:

- Scene of the accident
- Emergency equipment available
- Species, size, age, temperament, and condition of the animal requiring first aid
- Your emotional condition
- Other emotionally stable people available to help you.

First aid begins with a quick but careful survey of the scene. Then quick decisions need to be made, depending on the circumstances.

Make sure the accident scene is safe before proceeding. Take steps to prevent further injury to you or your pet.

Enlist the help of others.

Call, or have someone call, your veterinarian or the emergency veterinary center. (Keep those phone numbers handy at all times!) Describe the animal; give a short description of what happened and what has been done. Give your name and telephone number. Don't hang up until the professionals have told you what to do.

Administer essential first aid. Carefully transport the animal to the veterinary facility for examination if there is any question as to the seriousness of the injury or sudden illness. It is highly recommended to telephone first in all but the most life-threatening situations.

3. Muzzling

When attending a dog that has been injured, it is important that the first aid provider takes steps to prevent bite wounds inflicted by the animal being treated. Many dogs, even the family pet, may bite when hurt or frightened. A muzzle is an excellent way to prevent being bitten while rendering first aid. Commercial muzzles are best, as many of them can be used without interfering with breathing; the problem is they are not always available during a crisis.

If a muzzle is not available, the first aid provider must improvise. To make a muzzle, get a rope, cord or other similar strong material (such as a necktie or a belt). Wrap the cord or rope two or three times around the muzzle, being careful not to wrap the material too close to the soft, fleshy part of the nose. The muzzle must be applied to the bony part of the nose to avoid interfering with breathing. Bring the ends up past the ears and tie the securely behind the head.

These muzzles cannot be used on dogs who are having difficulty breathing, are unconscious, or have an injury to the mouth. They're also not indicated for short nose breeds (e.g., Chinese Pug, Pekingese and Bulldog).
Some injured dogs may vomit. If the dog appears to become nauseated or begins to retch, the muzzle should be removed at once.

Primary Survey and Resuscitation

The primary survey is often referred to as the ABC's of first aid, indicating the following areas of emphasis:

- "A"irway
- "B"reathing & "B"leeding
- "C"ardiovascular (which includes heart function, pulse, and capillary refill time)

In most cases, the pet owner will administer a minimal amount of first aid and then transport the animal to a veterinary facility. Occasionally it is necessary to continue the care with some additional procedures, particularly if veterinary help will not be available for some period of time. Please read the following sections carefully.

"A"irway, "B"reathing, and "C"ardiovascular are covered in the sections on CPR and Shock. The sections on bleeding and bandaging will cover information on controlling bleeding. First aid for fractures is covered in the section on splints. First aid treatment for poisoning and choking cases is described in poisoning and choking.

Safe Rescue

In order to administer first aid to an animal, it may be necessary to remove him (and yourself) from a road or a highway. Remove your pet from the highway only after making sure it is safe to retrieve him. Direct the traffic if necessary. If the pet appears likely to bite because of pain or excitement, cover the pet (including the head) with a blanket and/or muzzle the pet before handling. If there is any evidence of head, neck, or spinal injury (such as inability to move the rear legs), you should move the animal onto a flat surface for transport rather than picking him up.

Make sure to secure an accident scene before attempting a rescue.

4. Abscess

A localized accumulation of pus, usually caused by an infection introduced from an animal bite or other penetrating wound. It may appear as a painful swelling or, if it has ruptured, as a draining wound.

What to Do: If it has ruptured, clean the wound with soap (not detergent) and water. Rinse well and pat dry. Repeat several times a day.

If there is swelling, apply warm, moist compresses for 10 to 15 minutes. Repeat 3 or 4 times daily.

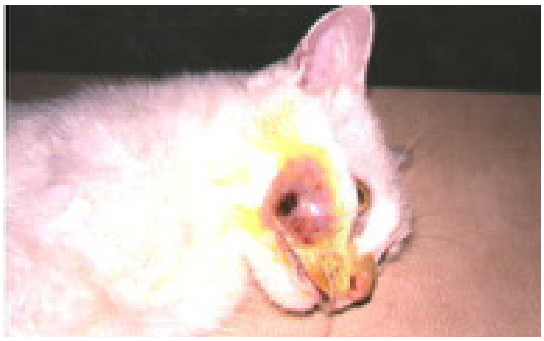
Abscesses should be examined by a veterinarian within 24 hours.

What NOT to Do:
Do not attempt to open the abscess yourself.

Do not apply medicines, potions, or home remedies unless directed to by a veterinarian.

Abscesses are a frequent problem in cats, especially unneutered males who get into territorial or breeding disputes.

During these disputes, the pet may receive a bite or a scratch. If the wound becomes infected, an abscess may form within a day or two. Neutering your male cat will reduce his “need” to fight. Without the influence of male hormones he will mark out a much smaller territory and will be less likely to engage in fights over a female.



5. Type of wounds

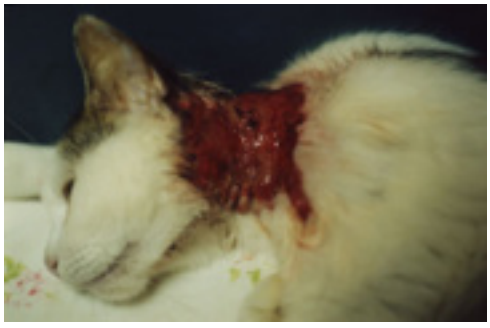
An animal can get different injuries. Each type of injury has its own treatment. Most of the treatments are/have to be done by the Vet, but it would be better if they know what type of injury to expect.

Cuts

A cut has a straight wound edge. The edges are usually clean and easy for a Vet to sew together.

Tear

The edges of these wounds are not straight, mostly serrated. These wounds are relatively difficult for a Vet to attach together. It is also possible that a sort of flap skin is formed by these types of wounds. These wounds are difficult to attach, because there are usually dirt and bacteria under the flap, which could cause inflammation and infection.



Abrasion

These wounds are superficial and need no treatment by a Vet. The upper layer of the skin has been scraped off. These wounds burn quite a lot, but cures relatively fast.

Puncture

These are usually very dirty wounds, because they have a very small area and mostly very deep. At this depth, a lot of bacteria could settle. If you noticed that the animal has this wound, simply rinse the area and let it bleed. Do not place a dressing (gauze/bandage), otherwise the dirt will now be removed! Always go to a Vet for the right treatment.

Shot

Small hole/cut. If it bleeds heavily, place a dressing that applies pressure to stop the bleeding and bring to a Vet as soon as possible. These can be very dirty wounds, so if it does not bleed heavily, avoid covering.

Burns

These wounds are cause by contact with extreme heat of cold. This type of wound can be categorized in 3 degrees namely:

1st Degree: This is the least severe burn. This burn is recognized as a red area on the skin, which feels warm and is painful (sunburn is a good example). The consequence of this burn is not severe and will disappear within a couple of days.

Superficial 2nd Degree: This burn is a bit more severe than the first. The upper layer of the animal's skin has been damaged. The skin is wet and very painful. You may also see blister formation.

Deep 2nd Degree: This burn is even more severe than the previous form. This is indeed a real wound. The skin is whitish, wet and very painful.

3rd Degree: The skin has been completely destroyed. The skin is black or white in color. Very dry, mostly painless because the nerves in this part of the skin are badly damaged.

When an animal receives a burn, it will get a 1st degree, which will go over to a 2nd degree and may become a 3rd degree. With a 3rd degree burn a 2nd and 1st degree are always present. The center will be the 3rd degree, around this the second degree and further out the first degree burn.

What to Do: Extinguish all flames. For thermal or electrical burns, immediately apply cold water compresses to the site of the injury, changing them frequently as necessary to keep the site cool and wet. Continue this for at least 30 minutes.
For chemical burns, see the chemical injuries section.
Transport your pet to a veterinary facility as soon as possible.

What NOT to Do:
Do not apply ointments.
Do not delay seeking veterinary attention.
Do not attempt to remove burned hair or skin yourself.

6. Poisoning

Poisoning is something that happens regularly on our Island. It is always very important to contact your Vet about what steps to take.

It is important to keep poisonous substances away from the animals. If you use any kind of pesticide or rat poison, you must ensure that your pets cannot get to is with their mouth. Place rat poison on a shelf or cover in such a way that only the rats and mice can get to it.

Whenever you see your pet eating poison, get rid of the poison first! Try to remove any poison that is still in the mouth to ensure that less poison gets in. When your animal ingested insecticide, some types of rat poison or Paramyte, it may start convulsing, foam from the mouth, collapse and lose consciousness. The animal must be transported immediately to the Vet to receive an antidote. If you witnessed that animal taking this kind of poison, induce vomiting. If you are unsure what the animal ate, it is better not induce vomiting, since you may cause more harm.

You can induce vomiting within 2 hours of ingestion, because the poison will still be in the stomach. Induced vomiting longer than 2 hours after ingestion, will not remove the poison, since there will be nothing left in the stomach. In this case, transport the animal to the Vet as soon as possible.
Vomiting can be induced by an injection given by the Vet, or by giving the animal a spoon of salt to the back of the tongue (you may also use full strength (3%) hydrogen peroxide or syrup of Ipecac). Try not to do this more than two times, since this could bring the animal's body out of balance and it could get worse.

It is not recommended to induce vomiting to an animal that ingested something sharp, is unconscious, has an epileptic attack or ingested something with a very high or very low pH level. Let this animal drink as much as
possible.

If the animal ingested a very large object, do nothing. Bring it to the Vet for treatment.

If the animal ingested something sharp, you could help by giving it gingerbread to engulf the sharp object to minimize damage.

Ensure to bring the packaging of the poison or a sample, so the Vet can adjust the treatment accordingly.

7. Bandaging

We use bandages for several reasons: to protect wounds from the environment, protect the environment from wounds, and to discourage the pet from licking or irritating a wound. They may be applied as support for strains or sprains and to prevent motion. Proper application is important.

Cleaning the Wound

The process of bandaging begins with careful cleaning of the wound. All dried blood, dirt, and debris should be washed away using mild soap and copious amounts of water. Hair should be clipped away so that it cannot lie in the wound, and, if possible, the area should be patted dry.

The first step in proper bandaging is making sure the wound is clean.

The Contact Layer

After cleaning the wound, the contact layer is the first layer applied. Ideally, this layer should:

- Be sterile and inert.
- Stay in close contact with, but not stick to, the wound.
- Be very absorbent.
- Be free of particles or fibers that might shed into the wound.
- Conform to all shapes. Allow drainage to pass to the next layer without becoming wet.
- Minimize pain.

A Telfa-Pad, available at most pharmacies, comes closest to meeting these requirements.

After cleaning the wound, place the contact layer over the wound. It is desirable to apply an antibiotic ointment (such as Neosporin) to the pad, but this is not absolutely necessary. Frequent bandage changes are more important.

After cleaning the wound, a clean Telfa-Pad should be applied over the area.

The Absorbent Layer

After the contact layer is in place, apply the second (absorbent) layer to hold the contact layer snugly, but not tightly, over the wound. This layer is usually a cotton or Dacron material which comes in various widths. Generally, 1-inch rolls are used for small limbs and the tail, 2-inch rolls are for medium-sized legs, and the 3- and 4-inch rolls are for large legs and the body. It is important to use the proper size. Materials that are too narrow often cause a tourniquet effect, especially if the wound causes swelling.

If materials are too wide, they are difficult to apply smoothly. Any wrinkles or ridges may cause the bandage to become uncomfortable for your pet. Uneven pressure may cause necrosis (tissue death) of the underlying tissues.

Begin with just enough absorbent layers to hold the contact layer in place. If the wound is on a leg or the tail, proceed by wrapping from the toes or the tip of the tail towards the body. If you begin at the top of the leg or the tail, the bandage is more likely to restrict blood flow and cause swelling, which may cause tissue damage. Apply several layers of absorbent material, which will soak up the fluid from the wound and increase the patient's comfort by cushioning the wound.

Make sure the material you use as the absorbent layer is the proper width, and wrap from the toes or tail tip towards the body.

The Outer Layer

Finally, apply the outer (tertiary) layer, usually made up of porous adhesive tape or elastic tape (i.e., Elastikon, Vetrap). Wrapped from the toes towards the body, this layer should also be smooth and snug. Do not pull elastic tapes to their limits, as this will interfere with circulation and result in bandage failure. The tape should be in contact with the skin (hair) at the bandage margins, anchoring the bandage so it will not slip.

The outer layer of a bandage should be applied smoothly and snugly, but not tight enough to cutoff blood circulation.

Bandage Changes

Bandages should be checked frequently for any signs of swelling discoloration or coolness of the skin, odor, or saturation of the bandage material. The bandage should be changed whenever any of the above are noticed or any time it appears to be uncomfortable for the pet. Wounds that are draining heavily may require bandage changes every 1 or 2 hours. Bandages over wounds with little or no drainage should be changed every 24 hours.

8. Cardio pulmonary Resuscitation (CPR)

Cardiopulmonary resuscitation (CPR) is the treatment required to save an animal (or human) life when he or she has suffered respiratory and/or cardiac arrest. CPR consists of two parts:

Rescue breathing and chest compressions.

These two techniques combine to keep the lungs supplied with oxygen and keeps blood circulating, carrying oxygen to the other parts of the body.

- Basic CPR is CPR performed by trained bystanders at the scene of the arrest.
- Advanced CPR is CPR performed by trained teams of professionals.
- Basic CPR is the most important, and will be described in this section.

All tissues require a steady source of oxygen. If the source is interrupted for only a few minutes, irreversible damage may be done. If an arrest occurs, basic CPR must be initiated at the scene.

Basic CPR: Rescue Breathing

Make Certain the Animal is Actually Arrested and Unconscious: Talk to the animal first. Gently touch and attempt to awaken the pet. You could be seriously injured should you attempt to perform CPR on a pet that was only sleeping heavily and was startled awake.

Ensure an Open Airway: Extend the head and neck and pull the tongue forward. Look in the mouth and remove any saliva or vomit. If it is too dark to see into the mouth, sweep your finger deep into the mouth and even into the throat to remove any vomit or foreign body. Be aware of a hard, smooth, bone-like structure deep in the throat. This is likely to be the hyoid apparatus (Adam's apple). Serious injury could result if you pull on the hyoid apparatus.

Observe for Effective Breathing: Sometimes an animal will begin to breathe spontaneously when the head is put in the position discussed above (head and neck extended, tongue pulled forward). Watch for the rise and fall of the chest while listening closely for sounds of breathing. If no breathing is evident in 10 seconds, begin rescue breathing.

Begin Rescue Breathing: Rescue breathing is performed by covering the animal's nose with your mouth and forcefully blowing your breath into his lungs. In cats and small dogs, you must hold the corners of the mouth tightly closed while you force the air in.
In larger dogs, the tongue should be pulled forward and the mouth and lips held shut using both hands cupped around the muzzle. Force the air into the lungs until you see the chest expand. Take your mouth away when the chest has fully expended. The lungs will deflate on their own. Air should be forced into the animal's lungs until you see the chest expand.

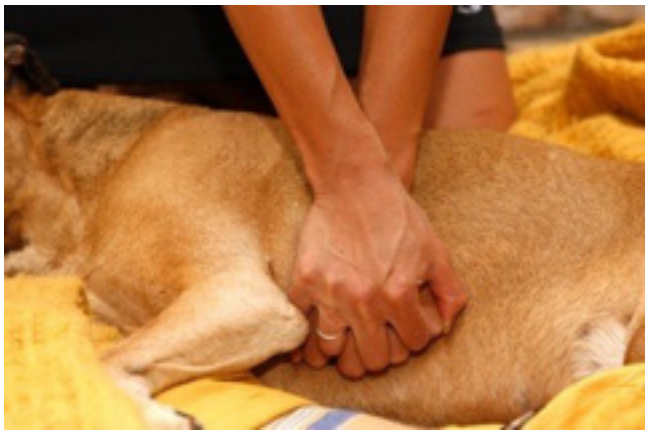
Give 3 to 5 Full Breaths: After several breaths are given, stop for a few seconds to recheck for breathing and heart function. If the pet is still not breathing, continue rescue breathing 20-25 times per minute in cats or small dogs, or 12-20 times per minute in medium or large dogs. Push down on the stomach area every few seconds to help expel the air that may have blown into the stomach. If the stomach is allowed to distend with air, the pressure will make the rescue breathing efforts less effective.

If breathing is shallow or Non-existent: And the animal is still unconscious, continue rescue breathing 10 to 15 times per minute and transport the animal to the nearest veterinary facility.

Basic CPR: Chest Compressions: After Giving 3 to 5 Breaths, Check for a Pulse(Sometimes, you can just place your hands low on your dog's chest, near the elbow joint, and feel the heart beats. You can count how many beats you feel in 15 seconds and then multiply it be 4. That will give you the pulse. A second place to find the pulse is high on the inner side of the thigh). If no pulse is detectable, begin chest compressions.

In Small Dogs or Cats squeeze the chest using one or both hands around the chest. Depress the rib cage circumferentially. Do this 100 to 150 times per minute.

In Large Dogs compress the chest wall with one or two hands, depending on the size of the dog (and the size of the rescuer). If the dog is on her right side, place the hand(s) on the side of the chest wall where it is widest. If the dog is on her back, place the hand(s) on the sternum (breastbone). Depress the rib cage or sternum 1.5 to 4 inches, depending on the dog's size. Do this 100 to 120 times per minute.



Coordinate Rescue Breathing and Chest Compressions: Give breaths during the compressions, if possible. If it is not possible to give breaths during the compressions, give two breaths after every 12 compressions.

When two or more Rescuers are working together: Rescue breathing should be given during every second or third heart compression.

Continue CPR Until:

- You become exhausted and can't continue.
- You get the animal transported to a veterinary facility and professionals can take over.
- The pulse is palpable or heartbeats are felt and they are strong and regular. In the vast majority of cases, artificial ventilations will continue to be required for a period of time, even though heart function has returned. This is due to nervous system depression secondary to the arrest.
- All resuscitated animals should be transported to a veterinary facility for further examination and care!

Secondary Survey

The secondary survey is performed once resuscitation measures have been successfully performed or when it is decided that resuscitation measures are not required. In some circumstances (because of ongoing resuscitation), the secondary survey is never completed and the animal is transported directly to the veterinarian or emergency hospital during resuscitation.

A general examination (from the tip of the nose to the end of the tail) should be performed. Determine and record:

- pulse rate and character
- respiratory rate and character
- mucous membrane color
- capillary refill time
- Rectal temperature.

Examine the eyes, ears, nose, neck, mouth (if possible), chest, abdomen, back, pelvis, legs, and tail. First aid treatment should be performed as necessary during transport to the veterinarian. Taking and recording your pet's pulse is an important part of the secondary survey.

9. First Aid for Choking

Choking is interference with breathing caused by foreign material in, or compression on, the trachea (windpipe).

Perform a Finger Sweep

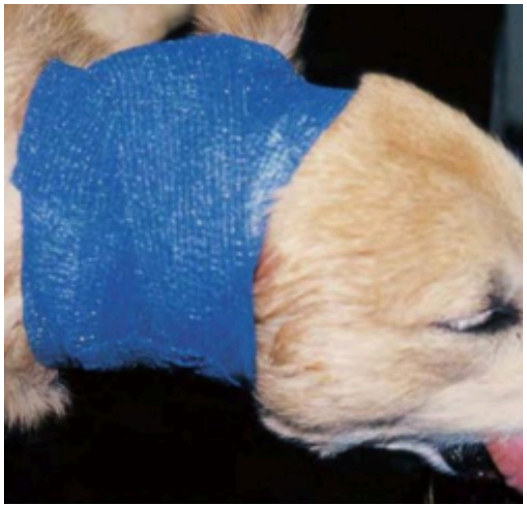
Continue CPR Until:

- You become exhausted and can't continue.
- You get the animal transported to a veterinary facility and professionals can take over.
- The pulse is palpable or heartbeats are felt and they are strong and regular. In the vast majority of cases, artificial ventilations will continue to be required for a period of time, even though heart function has returned. This is due to nervous system depression secondary to the arrest.
- All resuscitated animals should be transported to a veterinary facility for further examination and care!

10. Supplemental Information

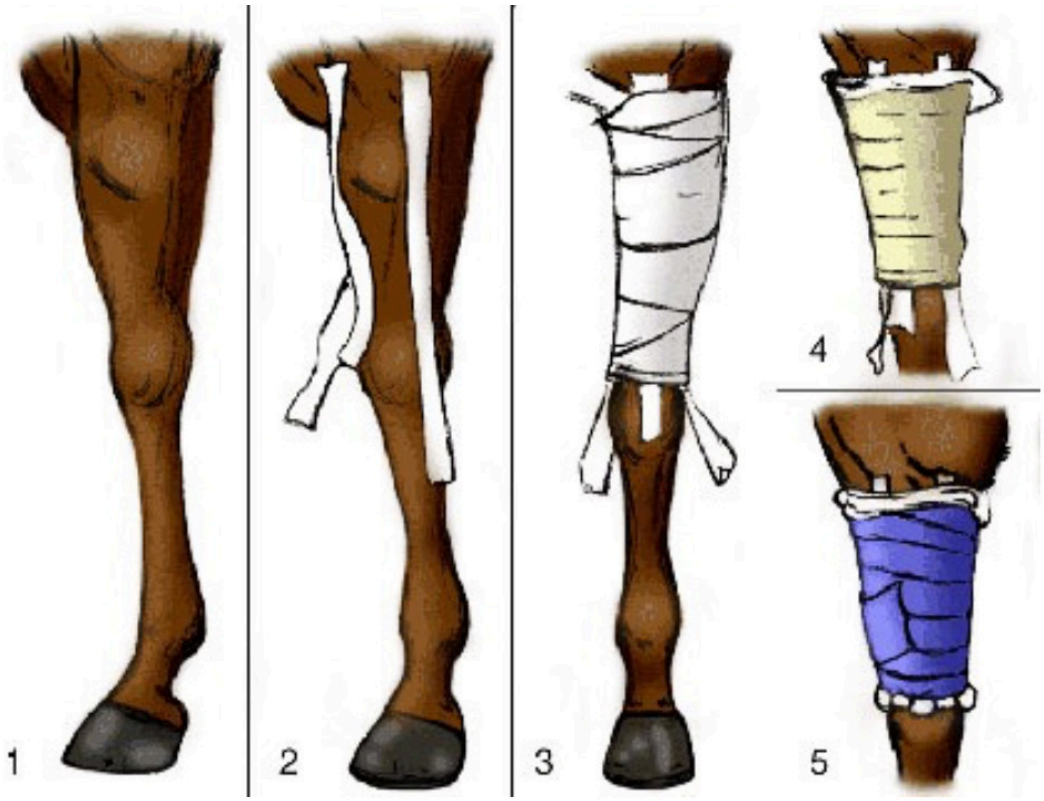
Bandaging the ear after a surgical procedure:

1. Place short strips of tape on the front and end margins of the outer curved surface of the pinna (ear)
2. Use a longer piece of tape on the inner curved surface of the pinna (ear) so that these tape pieces contact the tape on the outer curved surface.
3. Place the ear over the top of the head and place a non-adherent (non stick) pad over the incision (cut).
4. Apply cast padding and Kling over the ear, then use Vetrap or stockinet as an external layer.



Bandaging the leg of a Horse, Donkey, Goat or Sheep.

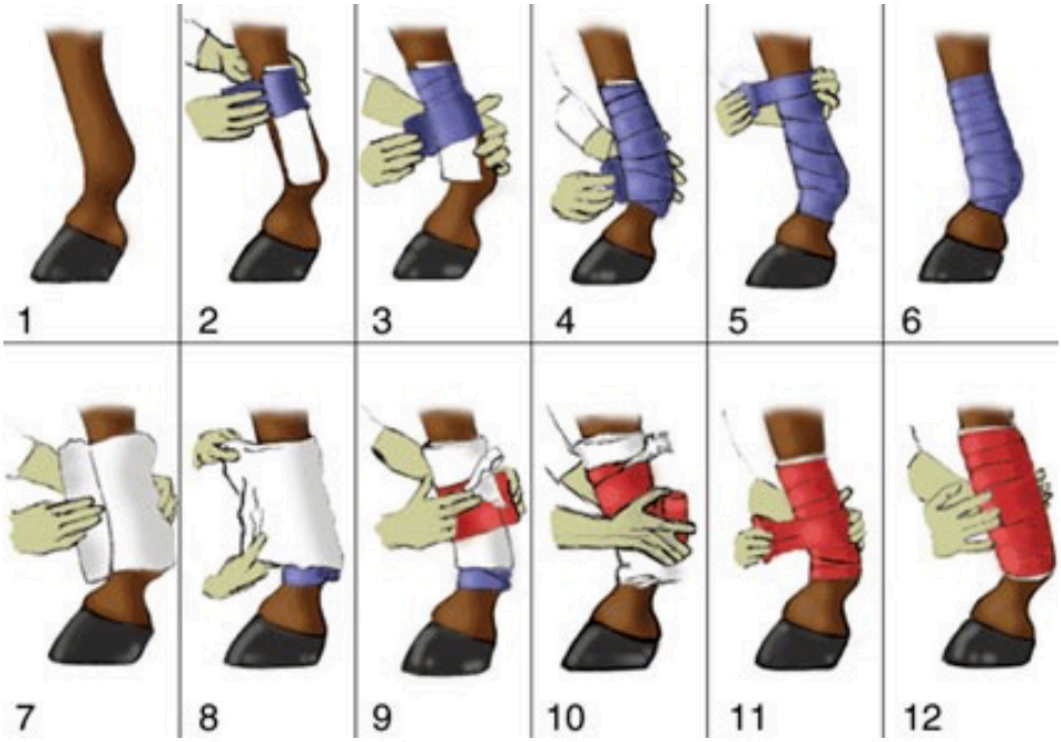
Wounds on a horse's forearm are difficult to bandage because of the forearm's shape. The tapering of the forearm will cause the bandage to slip off.



Numbers correspond to leg drawings above. Note all hand positions.

1. Make sure the leg is cleaned, dried, and ready for routine dressing.
2. Apply two or three long strips of adhesive tape vertically;
3. Apply medicated gauze pad and wrap with flexible bandage such as Kling Gauze, starting in the middle of the forearm and spiraling downward, then back up and to the middle.
4. Wrap cotton around leg.
5. Start self-adherent elastic wrap in the middle of the forearm under edge of cotton wrap and secure with a second wrap. Work the ends of adhesive tape into the elastic wrap. Remember to work down the leg, then back up and to the middle.

Proper Way to Wrap the Cannon Bone

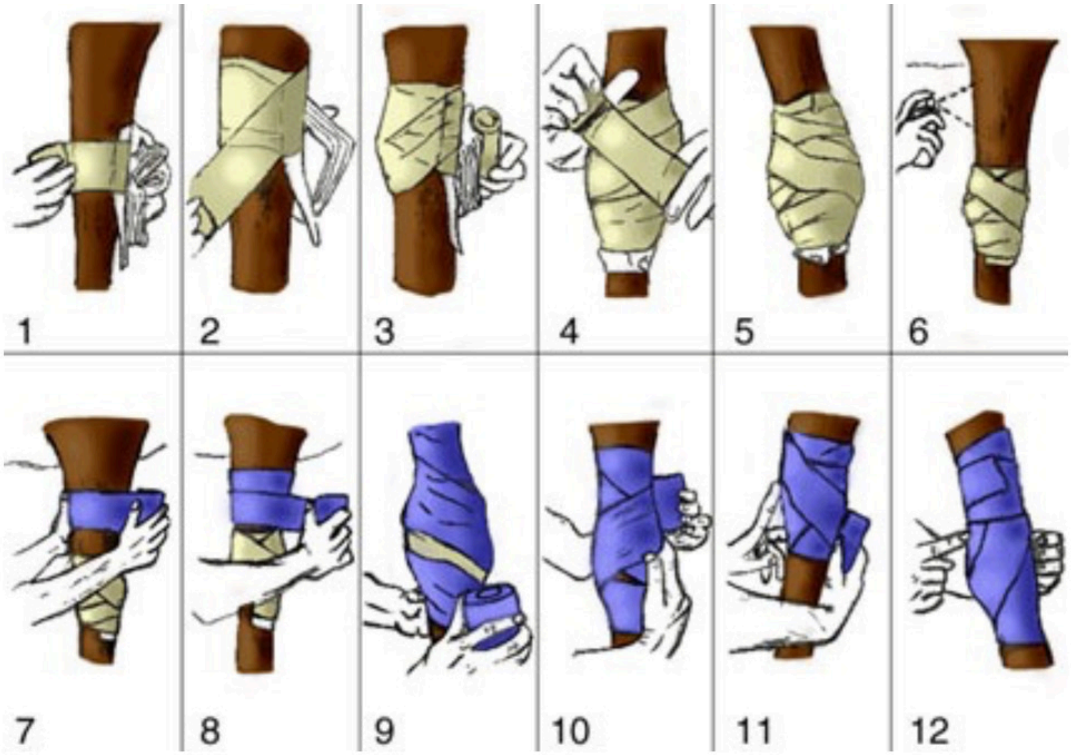


Numbers correspond to leg drawings above. Note all hand positions.

1. Make sure leg is cleaned, dried, and ready for routine dressing.
2. Apply medicated gauze pad and wrap with a flexible bandage such as Kling Gauze.
3. Progressively turn the bandage wrap, moving downward.
4. Turn the wrap back up the leg well below injury.
5. End well above the injury, just below the knee.
6. Finish primary wrap.
7. Apply padding to relieve tension.
8. End of padding should be carefully smoothed out.
9. Start on the middle of the cannon bone with a self-adherent stretch bandage under the padding wrap and secure with a second wrap.
10. Continue to wrap with successive turns, spiraling down the leg.
11. Continue all the way back up the leg and back to the center.
12. Press the final wrap so that it adheres to itself.

Proper Way to Bandage a Knee

It is more difficult to apply bandaging over the knees and hocks. Care must be taken to not place pressure on the bony prominences located just under the skin of these joints. Otherwise the horse will have bandage sores. Numbers correspond to leg drawings above. Note all hand positions.



Numbers correspond to leg drawings above. Note all hand positions.

1. Apply medicated gauze pad, and take two or three wraps with flexible wrap such as Kling Gauze above the knee.
2. Wrap a figure eight around the knee about 12 times.
3. Wrap a figure eight around the knee about 12 times.
4. Wrap a figure eight around the knee about 12 times.
5. Wrap a figure eight around the knee about 12 times.
6. Spray tincture of benzoin on the hair above the knee to aid in sticking the self-adherent elastic wrap.
7. Starting 6 to 8 inches above the Kling Wrap, take two wraps with the elastic wrap around the leg.
8. Use moderate tension as you start wrapping downward.
9. Continue wrapping down the knee, trying not to cover the bony prominences of the inside and back of knee.

10. Continue wrapping down the knee, trying not to cover the bony prominences of the inside and back of knee.
11. Continue wrapping down the knee, trying not to cover the bony prominences of the inside and back of knee.
12. Continue wrapping down the knee, trying not to cover the bony prominences of the inside and back of knee.