

Basic First Aid with Dogs

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General

This section is designed to assist in your knowledge of immediate treatment of injured animals and how to give basic first aid to dogs.

Need to **recognise and treat shock** in animals and to **assist in minor first aid** so that the animal can be safely transported and receive veterinary attention

Handling injured animals so as to enable the animal to be moved with minimal damage to both the animal and the handler.

The major emphasis with any emergency case is recognition of shock and stabilising the patient until veterinary assistance can be reached.

Travelling First Aid Kit

This type of kit is **particularly useful to have on hand for long trips**, especially for the dog showing fraternity. Many dogs develop travel-induced stress eg. **diarrhoea or dehydration** which can occur out in the wilds, a long way from any known veterinarian. The contents are, on the whole, available from veterinarians or your local chemist. The value of having a first aid kit has to be experienced by the lack of one ie. when you are faced with an 'emergency' and you have nothing on hand.

Emergency Kit

Bandage - 1 roll of Elastoplast,

1 roll conforming gauze (soft, stretchy non-stick bandage)

Dressings - gauze swabs, metho swabs (3-4), iodine swabs (3-4).

Cleansers - cotton wool, wound cleanser – iodine/betadine.

Instruments - scissors and tweezers, 3-6 cc syringe

Electrolyte sachet or liquid mix and a supply of water.

Woollen blanket or space blanket (very light foil type wrap) towels.

Thermometer °C. Normal Range (dogs/cats) 37.5-38.9°C, average 38.0-38.4°C
Above 39.0°C is elevated, Below 37.0 is low.

Rescue Remedy* (and/or Brandy) can be very effective for treatment of shock (human and animal)

Useful backup items when travelling

Eyes - Liquid Tears*.

Stomach - diarrhoea mixture, Immodium* or its equivalent, charcoal tabs, *Stemetil*/Maxolon* tabs, (vomiting), *corn flour*.

Creams - anhydrous wool fat (for sore feet), Stingose*, fly repellent.

Tablets – *antihistamines*, laxatives, Sulphonamide tabs (vet only), calcium tablets, vitamin K tabs.

Antibiotic spray or powder.

Most of these items are readily available and should help you deal with accidents and stress type situations thereby giving you time to get to a vet. They may even give you time enough to get home to your own vet.

Emergency First Aid

Handling of Injured Animals

The **3 main aims** of assistance to injured animals are to ensure:-

- 1. That the animal is handled in a way that minimises further damage,
- 2. That the people assisting are not bitten or damaged,
- 3. That effective, appropriate treatment is instigated as soon as possible.

Restraining and moving an injured animal.

- take a *cautious* approach.
- Injured animals are *often in shock*, usually *in considerable pain* and *can lash out* at any object including hands, that approaches their line of vision in an attempt to defend themselves from further injury.
- *caution particularly with the major injuries* such as broken legs, fractured pelvis, severe bruising etc.

If you have a *thick towel or blanket* nearby use it to cover the animal's head if it is trying to bite, or to form a thick loop with it to place around the animal's neck so it cannot bend its neck sufficiently to be able to bite you.

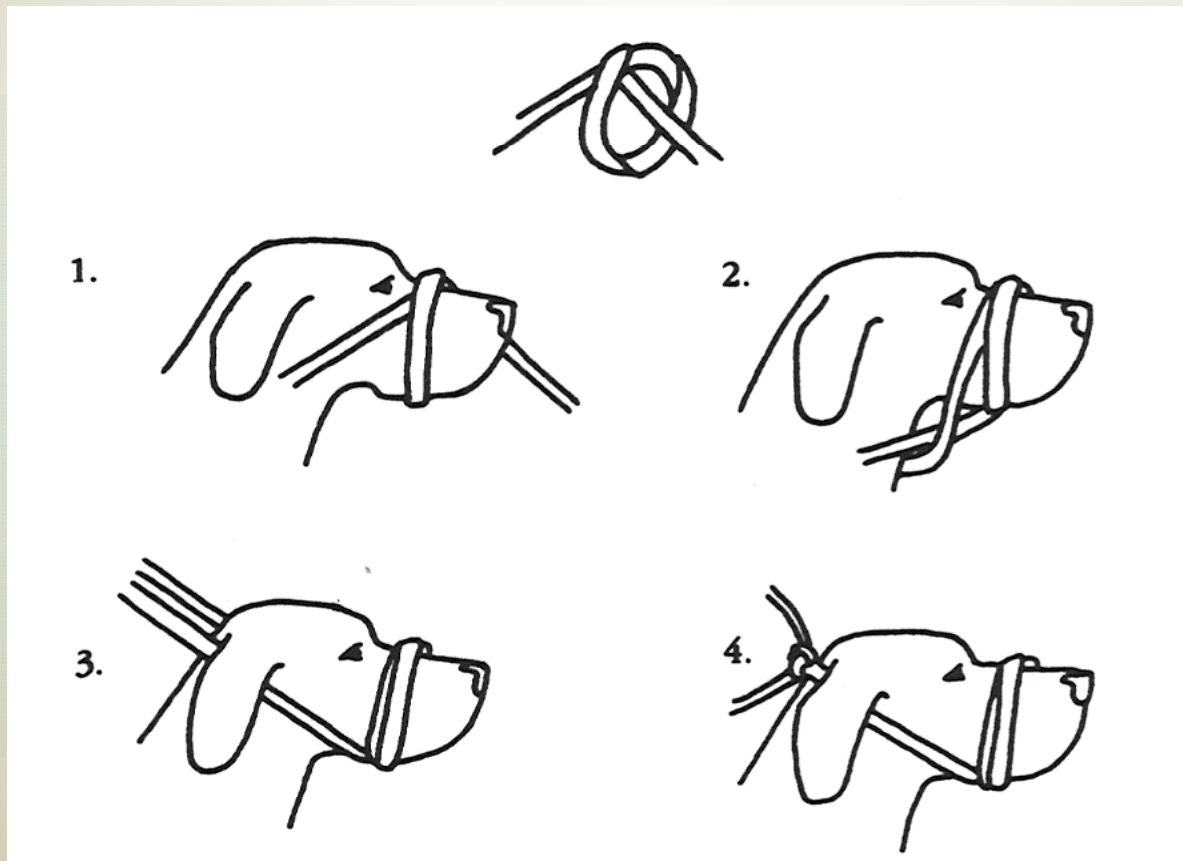
The *thick loop around the neck* is particularly useful in smaller breeds of dogs. Larger dogs can be controlled in the same manner, but should *preferably be muzzled* before being moved.

Applying a Muzzle to Dogs -

Use a gauze bandage, stockings or length of thin rope, whichever is available at the time. Apply firmly but not excessively tight. Loop the tie over the muzzle, tighten firmly, swing the ends down under the muzzle, crossing over before pulling the ends up behind the back of the head and *firmly* tie in a bow or knot that can be easily released.

Not all dogs require muzzling, but be very careful when lifting an unmuzzled dog.

Do not have the dog's mouth near your face while lifting or carrying it.



Moving an injured animal

Gently move (once muzzle secured) by lifting by the scruff or around the chest while supporting the hindquarters. If the neck is injured, lift the animal under the chest supporting the head at the same time.

Place the animal on a flat surface with the head extended.

Keep the injured animal warm by covering it with a blanket, often covering the eyes as well. This keeps the animal calmer as it is not as exposed to external stimuli such as light or sound.

Holding and rocking a badly injured animal, particularly one with broken limbs, is not a good idea.

Assessing the Damage

Once the animal is safely immobilised so that it can be handled without further damage to either itself or its would be rescuer, check the animal over quickly to assess it's condition and if needed, apply some basic first aid.

Initial aims (once the animal is safely restrained) are to:

- **Establish a patent airway** ie. make sure the animal can breathe easily. This usually involves gently clearing the nose of blood from the nostrils and keeping the head slightly extended so as not to cut off the flow of air into the lungs.
- **Check for shock.** - **Shock** is the defensive reaction by the body to cope with severe trauma.

Signs of major shock are:

(i) ***Pale mucous membranes*** of the gums and eyes: very pale to white gums and tongue generally indicates internal bleeding. The paler the gums, the quicker the animal needs to be treated. To check the state of the circulatory system to see how it is coping, press firmly on the gums, release and see how quickly the colour returns. Very slow or minimal return indicates more severe shock.

(ii) ***Rapid shallow breathing*** combined with pale/white mucous membranes can indicate internal bleeding, often of the lungs. Sit the animal up on its chest, with the head extended, so as to get maximum lung room. If needed, put a towel or blanket under the head to support it in the extended position.

(iii) ***Lower body temperature*** particularly of the extremities - cold feet, muzzle and ears. Wrap the animal in a blanket and keep warm. Ideally, a space blanket as this retains the heat or, alternatively a woollen blanket for the same reasons. If doing regular recovery work, keep a supply of either in the car.

***Haemorrhage from the nose, mouth, ears and/or anus is usually indicative of major internal bleeding/damage and the outcome is often poor.**

Apply pressure bandages to heavily bleeding areas.

Apply *a pressure bandage to any heavily bleeding site*, if at all possible.
Feet and leg injuries can bleed quite profusely.

A *firm (not too tight) bandage* of several layers thickness will usually be quite effective. Use several layers of bandage with a tighter layer of bandage on the outside.

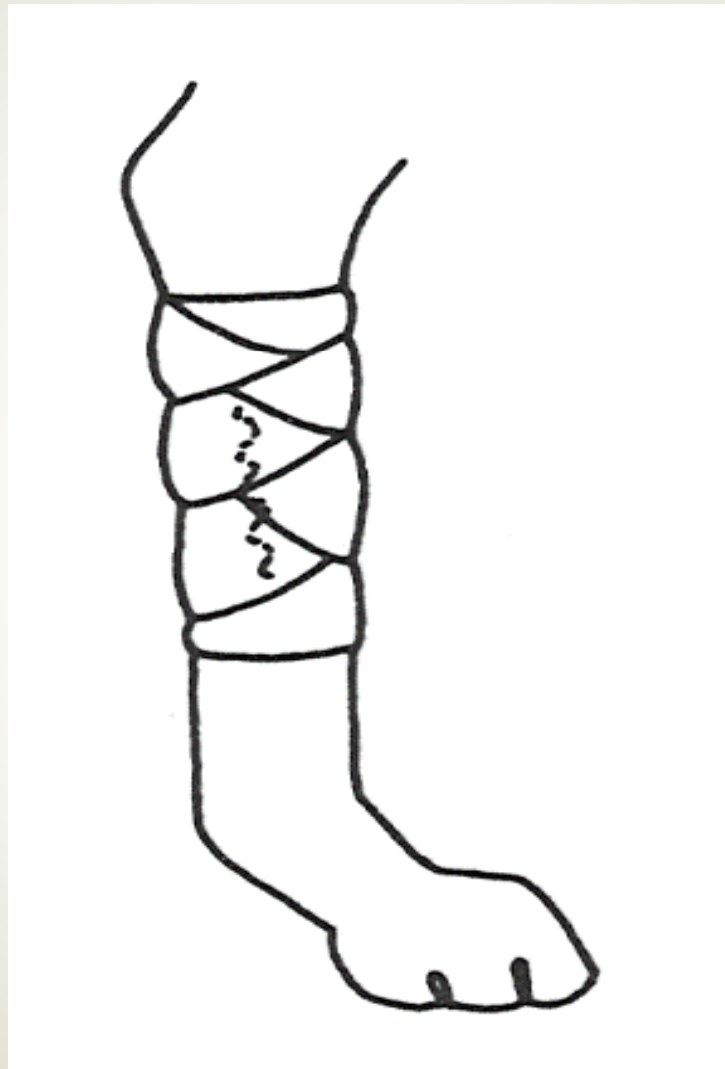
****If there are no bandages to hand at the time, a tee shirt with some electrical tape over the top is quite effective.**

Apply above (closer to the body) and on top of any heavily bleeding area. Very tight bandages are to be avoided, unless the bleeding cannot be controlled in any other way.

For wounds that persist in bleeding despite a firm bandage, apply a further tighter layer on the area. Keep the affected limb elevated in regard to the rest of the body and seek professional attention as soon as possible.

Bandaging

A *figure of eight bandage* tends to stay on better than applying the bandage in layers in one direction.



Bandaging cont-

Heavily bleeding cuts or wounds ideally should be bandaged prior to transporting the dog. Apply a muzzle to the dog before attempting to bandage any wounds.

If transporting for any distance, release any tight bandage for 10-15 seconds every 5 minutes. The bandage should not be so tight as to occlude the blood supply entirely.

If the dog (despite muzzling) refuses to allow any bandage or cover to be applied, transport the dog as quickly as you can to the nearest vet.

*****Minor injuries and scrapes should be left alone, as they are not life threatening.***

Fractured limbs

Where there are no exposed bones or significant bleeding present, *leave the affected limb alone – if the limb is twisted it should ideally be stabilized as soon as possible.*

Obtain veterinary assistance as soon as possible. This applies particularly to animals who despite restraint, are aggressive towards any assistance.

If you do need to support and/or cover a limb, a quick and easy support splint can be made out of any available strong cardboard or *thick layers of newspaper* rolled up. Apply a bandage gently around the splint, with more bandage wrapped above and below the fracture, rather than over the actual fracture site itself.

***** Fractured bones are better left alone, unless you know what you are doing and the animal is fairly placid.***

Very few people will know what they are doing and even fewer animals will be placid!

Emergency treatment cont.

Cover or seal any deep wounds to the chest

These wounds are not common but, when they occur, they can be life threatening. Again a firm (not too tight!) bandage of several layers, with preferably a thick pad over the largest wounds will assist until one can reach the nearest vet.

Get the injured animal to a veterinarian as soon as possible.

Ring your veterinarian if you can, and tell them the colour of the gums, the rate of respiration (rapid/slow/shallow etc), whether the animal can stand on all legs and if it is bleeding.

If the animal is severely injured the vet may be able to come out but it is usually far quicker for you to get there than for the vet to find you, especially late at night.

Remember, *all the necessary equipment is generally on hand at the veterinary hospital.*

If veterinary care cannot be reached:-

*If there is no way of getting to a vet for any appreciable length of time, **apply basic first aid, keep the animal warm and leave it somewhere quiet and dark.***

A small amount of brandy on the gums can help to stimulate the heart and reduce the shock. Rescue Remedy may be used to reduce the shock.*

Leave some water with a little glucose added in a bowl next to the animal. This applies equally to all species..

Helping a Dog Hit by a Car

What to do:

1. If the dog is conscious and in pain, ***muzzle the dog before you examine it***. The animal is usually in shock and may not recognise its owners and bite out of fear and pain. Not all dogs require muzzling, but be careful when lifting an un-muzzled dog. Do not have the dog's mouth near your face.
2. ***Examine for signs of shock such as pale mucous membranes***. The paler the gums, the quicker the animal needs to get to a veterinarian.
3. ***Apply a pressure bandage on any heavily bleeding site***, if at all possible. This applies mainly to legs and feet injuries. Minor injuries and scrapes should be left alone.
4. ***Usually leave fractures alone***, particularly if you are not far from the vet, and especially if the dog is in severe shock. If the animal is quite bright and alert, a quick and easy support splint can be made out of any available strong cardboard or thick layers of newspaper rolled up. Apply a bandage gently around the splint, with more above and below the fracture, rather than on the actual fracture site. On the whole this is better left alone, unless you know what you are doing and the animal is very placid. This would apply to very few people and even fewer animals!
5. ***Move the dog gently by lifting by the scruff or around the chest***. Place the animal on a flat surface with the head extended. Keep the dog warm by covering it with a blanket, often covering the eyes as well. This keeps the dog calmer as it is not as exposed to external stimuli such as light or sound. Holding and rocking a badly injured dog, particularly one with broken limbs, is not a good idea.
6. ***Get the injured animal to a veterinarian as soon as possible to check that there is no serious damage***.
If there is no way of getting to a vet for any appreciable length of time, keep the dog warm and somewhere quiet and dark. A small amount of brandy on the gums (or Rescue Remedy*) can help stimulate the heart, and leave some water in a bowl next to the animal. Ring your veterinarian if you can, and tell them the colour of the gums, the rate of respiration, whether the dog can stand on all four legs, and if it is bleeding heavily.

NB. Phone first if it is late at night or you have no transport or you have a long way to travel to get to the vet. Time wasted may have been used saving your dog's life at the hospital.

Fights, Wounds, Fractures and Sores

General Points

- ▶ (a) *As a general overview,*
 - ▶ **Simple skin wounds take approximately 7-10 days to heal.**
 - ▶ *Deep ulcerative wounds can take up to 3 weeks or more to heal, depending on the extent of the damage.*
- ▶ (b) **Bones** take **10 days** to form a slight callus, **3 weeks** to create a good hard callus and **6 weeks** to fully return to normal.

Never apply any stretchy bandage too tightly as it can contract and the circulation to the area can be restricted or cut off, resulting in swelling of the limb or gangrene in severe cases.**

Fight and accident wounds

These are all treated in the same basic fashion:-

- ▶ 1. **Clean the wound gently** with damp cotton wool or a gauze swab, add betadine to the water.
- ▶ 2. **Make sure there is no hair in the wound**. Hair and dirt are often dragged under the skin by the opponent's teeth in puncture wounds. If the hair and dirt is not removed the wound will become infected and break open.

All hair around the edges of a wound should be pulled out and then trimmed short. Hair that is left to trail into an open wound or wrap under the skin edges, will delay healing and cause infection.

- ▶ 3. **Large holes and deep wounds** where hair or dirt and other foreign material has been dragged in too deep to easily retrieve, must be treated by a veterinarian.

Smaller puncture holes and grazes are easily coped with by an experienced person.

Any swelling which appears around a wound should be examined by your vet, as there may be a developing infection.

- ▶ 4. **Apply an antiseptic agent to the surface of the wound** eg. iodine (Betadine*) or gentian violet and try to keep the animal from licking it too much. Excessive licking can, contrary to popular opinion, cause more harm than good.

Do not use Mercurichrome as it scalds the surface tissue, or Hibitane* as many dogs, cats and humans react adversely. Iodine or gentian violet are the safest.

- ▶ 5. **Clean any discharge daily with slightly damp cotton wool**. Keep wounds as dry as possible at all times. Use a foul tasting spray to keep the animal from licking the wounds excessively. Very useful is the "purple spray" eg. Cetrigen*, which has a fly repellent as well as an alcohol base with gentian violet added. It tastes terrible and keeps the flies away – very necessary in summer.

Smaller Cuts/Wounds

- ▶ Smaller wounds on legs and feet can be readily dealt with by the experienced person provided they are properly cleaned out and disinfected.
- ▶ **Cuts (or wounds)** once they are cleaned out, disinfected (preferably not with something too lethal), can be bandaged if needed or left open to dry out. Very small holes are generally left uncovered. Larger ones, if stitched, may need the Cetrigen spray to stop the dog licking the wounds. If the dog persists in chewing the stitches or licking the holes despite applying spray, the wounds may need to be lightly bandaged.
- ▶ **Bandaging Wounds** - If the wounds are moist or there are large heavily grazed areas, they can be lightly wrapped (depending on the area) with Jellonet*, a vaseline impregnated gel net that lightly supports the tissue as it is healing. This type of bandage must be changed daily until the wound is fairly dry. After it is dry, change the bandage every 2-3 days, depending on how the wound is progressing.
- ▶ **Infected wounds** do very well with products like Dermaclense*, Otoderm* or Betadene* cream. These creams are excellent to pack into deep infected wounds as they promote healing. Once clean and healthy, use the Jellonet*.

Treating wounds cont.

- ▶ **Applying a Bucket/Elizabethan Collar**
- ▶ If the dog persists in chewing bandages, stitches etc you may need to apply an Elizabethan collar or a bucket to the dog's head. This may be necessary for some 3-7 days until the wounds dry out.
- ▶ Applying a bucket (bigger breeds) – Cut out the bottom of a bucket, make small holes around the base, get a collar, then loop a piece of string through the bucket, round the collar and so on all the way round. Then place the base of the bucket over the head, do up the collar and tighten the slack on the string.
- ▶ The end of the bucket or the Elizabethan collar should extend beyond the nose which should stop the dog licking any wound. Leave this on at all times while you are away from home. Remove to feed the dog and/or while you can be there watching the dog..

Once the skin has completely healed, (or very nearly), **leave the wounds open to dry out**. If the healed skin is very thin and dry, apply a very thin layer of zinc cream or Ungvita* (vitamin A, E and zinc) cream. This will help keep the skin supple and promotes hair regrowth, while protecting the new skin from sun damage in summer.

- ▶ ***## Points to remember when treating wounds or skin lesions:***

Dry out wet surfaces.

Moisten dry surfaces such as calluses with creams.

Stings, Bites and Ticks

Bee Stings and Ant bites

The **most common allergic reactions** are as the result of *bee stings and ant bites*.

Symptoms - sudden, swollen, soft pitting swelling, often of the face and lips, less commonly as welts all over the body.

These are not generally life threatening and the reaction is usually limited to swelling around the area which has been bitten. Most bites of this nature do not cause respiratory difficulties unless the animal is particularly sensitive to the cause ie. extremely allergic.

Treatment with antihistamines will quickly relieve symptoms – human ones are quite safe with dogs. Symptoms generally regress over the space of 4-6 hours with treatment.

Snake or Spider bites

are far more difficult to deal with, particularly if you have no knowledge of the initial incident eg. such as the time the incident occurred and/or the causative agent.

Spider Bites - Very few cases of spider bite are confirmed, or the spider identified. Generally dogs rarely react to spider bites.

Symptoms - only cause localised reactions, thick welts and occasional patches of necrotic (dead) tissues over the bite areas. Some general soreness and sluggishness may occur.

Treatment - is generally symptomatic ie. treatment of the presenting signs, usually by the use of short acting cortisones and/or antihistamines.

Snake bites

Snakes that commonly cause problems on the Australian east coast include the **black, the brown and the tiger snake**.

Time of year, areas to avoid - Snakes particularly love hot dry weather and a dry sandy, rocky terrain. As cold blooded reptiles, snakes need to cool off in very hot weather by going towards water and other damp areas. Under tank stands, near water features dams etc are high risk areas.

Snakes are also attracted to birds as part of their natural prey, so if you keep birds, keep any aviaries well away from any dog kennels or yards.

Symptoms of snake bite can vary slightly between the various types of snake. Signs can vary according to the type of snake, the time that has elapsed since the dog was bitten, the amount of venom received and where the dog was bitten (over a blood vessel etc).

Symptoms include: lethargy, trembling, vomiting and profuse salivation, progressing to inability to stand, rapid respiration, bluish mucous membranes (of the gums) and/or sudden collapse. Some dogs may collapse, recover, then go down again within 1-2 hours. The various actions of the venom include an anti-coagulation effect, a paralysis effect and a neurotoxin. There may be a hypersensitivity to noise and light in the form of minor fitting and/or muscle twitching. Additionally, there may be blood in the urine over time.

Time of onset - Some snake bites can take 12 or more hours to manifest with owners, often erroneously, thinking that because there are no obvious signs within 1-2 hours, that the animal may not have received any poison. These dogs are often found collapsed or severely depressed, are often jaundiced and passing blood in the urine.

Treatment - Take the animal to a veterinarian as soon as possible after any suspected bite. Treatment can differ according to the presenting signs and the amount of knowledge as to the cause and time of the incident.

The vast majority of cases will show signs of being affected by the venom within 2-4 hours.

Snake bite cont.

Do not delay getting the dog checked by the closest veterinarian as precautionary treatment is preferable to being too late.

The longer the delay from the initial incident, the lower the survival rate. Diluted antivenom is given as soon as possible in affected dogs. Other treatment with snake bites involves using adrenaline, intravenous fluids, short acting cortisones etc.

Vitamin C in high doses has been anecdotally reported to be helpful in some circumstances.

****It is presumed with all snake bite victims that a full dose of venom was received, therefore all victims receive the same amount of anti-venom, regardless of size.***

Types of Anti-venom

Tiger/brown antivenom - a combination of anti-venom for the **black/brown and tiger snake**. This combination covers the majority of common snake bites including the red bellied black, brown and tiger snakes.

Tiger and Brown snake antivenoms are still individually available and may be used more in areas where that specific snake type is predominantly seen.

Death Adder bites are particularly lethal, generally killing the animal within the hour. These dogs rarely survive long enough to get to the vet. These bites require Death Adder antivenom specifically. As this anti-venom is very expensive and death adder bites relatively uncommon in many areas, most veterinarians do not hold stock of this anti-venom.

Prevention

In known high density snake areas, keep dogs away from dams or cool damp areas such as under tank stands. These areas should ideally be fenced off from the dogs. Keep open areas clear of long grass by regularly mowing the running yards. Close of any drains or small entrances into cool kennel blocks.

Fence around the dog running yards and kennels with bird wire netting from the ground to at least 3 feet up.

Sentinel systems have been developed recently that appear quite effective.

Paralysis Tick Poisoning (Ixodes Holocyclus)

Types of ticks – brown bush ticks, cattle ticks and paralysis ticks.

Bush ticks are brown and the legs are well spaced out down the sides of the body.

Cattle ticks are a strong bluish colour and have legs spaced down the sides.

Tick affected areas - along the **entire coastal belt** of eastern Australia, from Bairnsdale in Victoria all the way up to lower Queensland.

Ticks **require moisture, humidity and warmth**. Affected cases are seen from **spring through to autumn**.

Ticks like to crawl to the top of long grass and low shrubs, and will attach to the coats of animals as they brush past. About **80-90% of ticks are found around the head, neck and shoulder regions**.

Ticks **do not have a separate head**, merely a mouth piece. Where they are attached to the skin, there is an allergic reaction to the tick saliva, resulting in a 'crater'.

Description of Paralysis ticks look like small **slate(blue-grey) coloured** warts and the legs all come out close to the mouth piece. When they first attach they are the size of the top of a biro, when fully engorged, it can be nearly as big as your little fingernail.

Symptoms - Paralysis ticks can kill affected dogs within 3-6 days of contact.

Signs are **incoordination of the hindquarters, weakness of the hind legs, husky cough and loss of voice, loss of appetite and a rapid respiration rate**.

Very early signs are easily missed but, if you are living in a tick area, you should be alert for any change in the dog's habits. Initially the dog may appear reluctant to walk very far, refuse a feed and be slightly off balance when turning. The dog is reluctant to stand, further it walks, the worse it becomes.

This progresses to a total paralysis with laboured breathing and bluish mucous membranes (gums).

Death results from paralysis of the respiratory muscles and lung congestion.

Treatment for tick paralysis

- ▶ *# It takes several days for the effects of the paralysis tick to start showing and 3-4 days for the effects to wear off.*

- ▶ **Treatment** involves removal of all ticks. If no ticks are found, they may already have dropped off. There should still be a **crater**, which is an allergic reaction in the place where the tick was embedded.

Removal of ticks is easily done by placing your thumb and first finger on either side of the tick, pinching down and almost taking a small piece of skin, and then give it a quick half twist. The tick will pop out. Ticks do not have a definite head; removal and/or killing the tick is the initial primary concern. You can pre-spray them with Frontline* directly or any fly spray if you are concerned that you cannot effectively remove the tick.

*The effects of the tick are **still wearing on over the next 48 hours***, so veterinary advice must be sought on all cases that are showing any signs of paralysis.

- ▶ *Where there are respiratory difficulties, the dog should be seen by the vet as soon as possible.*

Treatment - tick serum from hyperimmune dogs. The dog is hospitalised and preferably kept very quiet and covered up to reduce external stimuli ie. light and noise.

Treatment for any respiratory and cardiac symptoms is also initiated, including diuretics to decrease the amount of fluid in the lungs. Sedation and/or Temgesic* is used to keep the dog calm. Severely affected dogs must be kept at normal body temperature as the lack of movement can result in them becoming chilled.

Treatment must be kept up to these dogs around the clock. It can be a very tense time over the period of the next 2-3 days until the breathing becomes easy and more relaxed ie. until the dog stabilises. Once this occurs, the dog is usually out of danger. Aftercare then becomes the same as described below for mild cases.

Tick affected dogs are handled as little as possible to minimise respiratory distress

With paralysis tick poisoning, remember:-

1. *It takes several days for the tick poison to take effect and several days to wear off.*
2. *Severe cases need hyperimmune tick serum to try to reduce the severity of the effects of the toxin.*
3. *Every case is treated according to its symptoms and each case is different*
4. *There should be as little external stimuli as possible at all times while the dog is affected by the toxin.*
5. *There are no guarantees of survival.*
6. *Prevention is the ideal way to avoid the risk to your dog's life.*

Aftercare Treatment and dogs with no obvious symptoms of paralysis

Very mild cases, with no obvious signs of paralysis, should be put somewhere very quiet and dark for 24 hours. However, if it is the first tick they have ever encountered, it is wise to have the dog examined by your vet.

Do not give food or water to the animal, as it is paralysed internally as well as externally.

After 24 hours, give a small amount of water. If the animal drinks, and there is no vomiting or coughing allow free access to food and water. If it is reluctant to drink, then wait another 12-24 hours and repeat the process. If the dog is not drinking after 48 hours or any signs of paralysis or breathing difficulties develop at any stage, immediately consult your vet.

Some dogs can develop heart problems after severe poisoning which generally resolves in several days. Older dogs in particular should be kept very quiet for 4-5 days after recovery and not stressed as there can occasionally be lingering affects on the heart.

Dogs can develop *a relative immunity* to tick poison but it develops slowly from repeated exposure to ticks. The immunity is short lasting (*approximately three months*) and *variable*, which means that by the end of winter there is usually little or no immunity left from the previous season's tick events.

Prevention – topical treatments and collars

Topical applications

Frontline*, a topically applied spray (eg. Frontline Plus* spray) that, if applied all over the dog, can give 4 weeks protection.

Liquid concentrates (eg. Frontline Top Spot*, Advantick*) will give 2 weeks cover, even if dogs are going in and out of water regularly. These compounds are very safe and non toxic.

The other topical treatment which is effective is Permethrin* rinse but it must be applied every week to be effective.

Tick collars are excellent as they cover the primary area where ticks are found on the dog (head/neck and shoulders) and should be changed once regularly during the tick 'season'.

Preventick* collars are the best currently and can safely be used in conjunction with Frontline*/Advantix* treatments.

Do not leave long collar tags hanging loose for other dogs to chew as the side effects of dogs eating these collars can be quite severe.

In very high risk areas for Paralysis ticks you can use Proban Cythioate* tablets 3 times weekly which will kill ticks as they attach. This can be used in conjunction with Frontline and Preventick* collars. Unfortunately, it can become expensive for the larger dogs, but it can be of great benefit.

Long haired dogs are often shaved very short every spring in high tick areas to assist in the finding of ticks.

Prevention of Tick infestations

Tick Season varies according to the weather.

Tick areas - Ticks are rarely found far inland of the coastal belt.

Ticks prefer humidity and warmth, so the ideal times for ticks are spring through to autumn. Usually in the middle of summer when it is very dry, the ticks will usually not be out. If, however you are having a particularly wet summer, they can stay out and about. **Particularly be on the lookout for ticks in the 7-10 days after rain or during periods of high humidity.**

Avoid bushy areas - Ticks prefer to live in thick, overgrown areas and will climb to the top of tall grass, small shrubs and bushes. If you live in a known tick area: keep the grass very short in any dog areas, as well as for at least 2-3 metres around it. High winds can blow ticks into a mown area but the risk of picking up ticks can be reduced to almost nil in a well tended area. Do not take your dog on walks through rough bush or allow it to roam through these areas.

Check your dog daily during the tick periods of the year, paying particular attention to the head, neck and shoulder areas. Beyond this area, the dog will usually bite out any small ticks which are trying to embed themselves into the skin. Despite this, the dog must be fully checked all over. Coated dogs are high risk animals in tick areas as the ticks are extremely easy to miss in the thick hair.

If travelling into known tick areas (as many people go to the beach areas with their dogs during the school holidays), pre-treat the dogs with Frontline 1 week prior to going and ideally put a tick collar on as well. Check the dog daily while there and again for 4-8 days after returning home.

Heat Stress

Due to our hot climate, heat stress is quite a common problem in the hotter months. It must be remembered that this condition can be a medical emergency and failure to act quickly can result in the death of the dog.

Pre-disposing factors affecting the incidence of Heat Stress

1. **Weather** - Heat stress usually occurs on very hot or moderately hot days following several consecutive hot days. The continual heat gradually lowers the dog's body reserves of sugar and salts, so that the longer a hot period lasts, the easier the heat stress can occur. In this situation, it only takes a little extra stress to set heat stress off.
2. **Restricted air circulation** – Heat stress can readily occur if a dog is in an area with such as a closed car, crate, tent or dog trailer where there is *inadequate through circulation of air*. Dark vehicles and dog trailers absorb more heat and so will overheat more rapidly. Air conditioning in stationary cars, if left unattended, can fail quickly because of the power drain required and is also a problem.
3. *Dogs that are* **exercising heavily in hot weather** e.g. Greyhounds, are particularly at risk.
4. **Black** dogs absorb more heat than lighter coloured dogs (as they do not reflect the light, but absorb it), so they are more prone to heat stress.

The dog's main ways of losing heat are:

1. Respiration through **panting**.
2. **Sweating** through **pads**. Dogs do not sweat in the same way as humans.
3. **Heat loss through areas of minimal hair** i.e. belly and anus.

Symptoms and Treatment of Heat Stress

Symptoms - A dog suffering heat stress is usually very sluggish and reluctant to move.

**** *Respiration is extremely rapid and the mucous membranes, i.e. the gums and conjunctiva, are blue-ish.***

The breathing is extremely laboured and there is usually very little salivation. The dog may vomit, stagger and collapse and if not treated quickly at this stage, it will shortly die. The temperature of the dog is usually well over 40.0°C.

Treatment - The first priority is to cool the dog fairly rapidly.

Like humans, the most important area to cool is ***the head and neck***, particularly under the neck. The blood going to the brain must be cooled to prevent brain damage and to settle down the respiration rate.

Turn a cold water tap on full bore to wet the dog thoroughly all over starting on the head and neck, belly and anus. **Keep the water running over the entire dog for a minimum of 8-10 minutes.** If you have any ice or a cool pack, place some on the bridge of the nose (this is especially important on short nosed breeds) and under the neck. Ideally place the dog in a bath or wadding pool so the entire dog can be cooled.

Keep the water flowing over the dog until the respiration settles down. You can wet the dog's mouth but don't expect the dog to swallow much water as it may be incapable of swallowing at this stage. Too much water in the throat at this stage will choke it.

When the dog starts to breathe in a less laboured manner, turn off the tap and keep sponging the dog down with wet towels, still paying particular attention to the neck, abdomen, anus and feet.

Heat Stress treatment cont.

Too rapid a temperature drop can equally cause brain damage – ***do not use iced water***. Bath tubs are great – leave the plug in and keep the water ½ way up the sides of the dog. Take the dog's temperature once the respiration rate is reduced and keep cooling the dog until the temperature is between 39.0°C and 39.5°C

As the respiration rate returns to normal, leave the dog sitting on a wet towel and give it a small amount of water to drink.

******Remember that heat rises - do not place wet towels over the dog, as it prevents the heat escaping!!!. ******

As soon as the dog's breathing settles down, take it to the nearest vet if it has not returned to normal quickly ie. ***if the dog is still extremely sluggish***. The vet will usually administer a very short acting cortisone which returns the body systems to normal and helps the dog to recover from the stress.

It is an idea to administer electrolytes, either intravenously if the dog is severely affected, or orally if it is less severe. The electrolytes replace the salts that the body has lost. Weak glucose solutions with electrolytes are a help. Nothing too concentrated should be given as the idea is to rehydrate the dog by returning fluid to the body.

Prevention of Heat Stress

Prevention of heat stress is of course far better than having affected animals.

1. Always ensure that your dogs have adequate shade and water. If the dog for some reason has to be left in a confined area ensure that:-

- (a) Ventilation is more than adequate.
- (b) Shade is available.
- (c) Water is always available.

2. Puppies, old dogs and brachycephalic breeds are especially susceptible to heat stress. If your dog falls into either category, you should always leave a wet towel or wet newspaper over **part** of their living area.

If you freeze a large dish of water, it can be left out to gradually melt during the day. Leave a sprinkler going over the shed if it can be managed or direct a fan over the animals to stir the air. If using a fan with puppies make sure it is directed **over** them and not on them.

3. In hotter weather it is a good idea to give your dog electrolyte salts to help prevent heat stress. There are two additives that are very helpful, especially after several hot days.

(a) Electrolytes - There are various brands available and they usually contain some glucose. Give one level teaspoon for average to large breeds. In the food is best. If using a liquid electrolyte eg. Lectade* use 10mls of the concentrate for the same size dog.

(b) The bicarbonate ion is one of the main salts that is lost during heat. If it is not in the electrolyte mix, you can add a small amount of bi-cab soda. Give large dogs 1/4 teaspoon daily. If it is very hot, increase to 1/2 teaspoon.

Put the electrolytes in the food as dogs do not like it in water.

Prevention cont.

4. *If travelling in hot weather, in addition to the salts or bi-carb, always travel with plenty of water* (preferably with frozen cool packs as well). If the dogs are at all distressed, wet them down and place them on wet towels. Dogs cool quickest through their feet, belly and anus. Hot air rises, so do not cover the dogs with wet towels.

5. *Cool coats and cool mats* – these contain crystals which when rehydrated keep the area cool. If they dry out (coats in particular), they will start retaining heat, so they must be wet down/resoaked frequently.

6. Small portable fans or *air conditioners straight onto the face* can help cool distressed dogs quickly.

****Remember:-**

1. In hot weather, ALWAYS ensure there is access to shade, through ventilation and water at all times.

2. Heat stress can occur on a relatively mild day, especially if it has been very hot for the previous few days.