The following information is a guide only. Please talk to your vet about their preferred treatment and prevention for snake bites.

**Myths, Statistics and Facts**

- There are about 3000 snakebites to humans in Australia each year.

- The snake bite rate for dogs is much higher, given that they spend a lot of time in the garden, bush, farm and areas where snakes reside. Actual figures are not available as many dogs die before they can be taken to a vet and their bites are not recorded.

- The survival chances of a dog bitten by an Australian snake is dependent on the type of snake and how much venom has entered the system of the dog.

- Around eighty (80) percent of pets survive snake bite if treatment is administered quickly. The survival rate is much lower however for pets that are left untreated, and death often occurs.

- Care should be taken when dealing with snakes. They are a protected species and should not be disturbed. However, if there is immediate danger, you should try to remove the dogs from the danger or call for professional assistance.

It is not recommended under most circumstances that you try to kill the snake yourself. Many people are bitten by snakes because they have attempted to interfere with the snake or kill it.

Their defense mechanism in protecting territory and their own safety is biting and injecting venom. In Australia we accept that living with snakes is a way of life, even in the outer suburbs of the city and around our parks and gardens.

Prevention is always better than cure. Reducing the bushes and gardens in and around your home will help reduce the likelihood of snakes in your area. Walking the dogs in areas where you can see clear ground and checking banks of waterways and the water carefully before letting your dog swim.

- Be aware that some dogs will display the symptoms of a snake bite and then **stage a brief recovery prior to suffering a total collapse**. If in doubt, always attend the vet to have your dog checked. Attending medical attention promptly is a factor in successfully treating snake bites.

- Previous snakebites in dogs **does not create an immunity** against future snakebites; every snakebite must be treated as serious and life-threatening.

- **Do not bleed a dog; this is a misguided tale.** Australian snake venom travels through the lymphatic system, so bleeding will not assist the dog and will simply weaken, hurt and stress the dog more.

- Be very wary of the "vitamin C" remedy; **it may or may not buy time for a dog** but it will not prevent death - it is not a treatment.
COMMONLY ENCOUNTERED SNAKES

EASTERN BROWN SNAKE
Also known as: common brown snake. Found throughout the eastern half of mainland Australia.

Fast-moving, aggressive and known for their bad temper, eastern brown snakes, together with other browns, are responsible for more deaths every year in Australia than any other group of snakes.

Not only is their venom ranked as the second most toxic of any land snake in the world (based on tests on mice), they thrive in populated areas, particularly on farms in rural areas with mice.

If disturbed, the eastern brown raises its body off the ground, winding into an ‘S’ shape, mouth gaping open and ready to strike. Its venom causes progressive paralysis and stops the blood from clotting, which may take many doses of antivenom to reverse. Victims may collapse within a few minutes.

TIGER SNAKE
This snake is distributed along the south eastern coast of Australia, including Victoria, eastern New South Wales, part of South Australia and Tasmania. This includes many of the most populous areas of Australia, and tiger snake bite is currently one of the most common snake bites in Australia, along with brown snake bite.

They are solidly built, with broad, flattened heads. When disturbed, tiger snakes may flatten their necks in a threat display. They usually strike low to the ground. Adults are usually banded, and colour may vary from pale yellow to almost black. Occasionally, the bands may be absent, leading to difficulties with identification.

A dog bitten by a tiger snake tends to react immediately, becoming agitated and hyperactive. Shortly after this the dog may collapse with its tongue hanging out. Breathing becomes very laboured. Lethargy sets in and the dog will die. Recovery can only occur with the appropriate and immediate treatment.

AUSTRALIAN COPPERHEAD SNAKE
The Copperhead can be found above the snowline because they are adapted to cooler climates. The copperhead snake is limited to Victoria, Tasmania, the highlands of New South Wales and the southern parts of South Australia.

They are found in river, swamp and marshland areas. Envenomations may be effectively treated with tiger snake antivenom.
RED BELLIED BLACK SNAKE
black top and red base.

Red-bellied black snakes are also called the common black snake. Distributed down the east coast of Australia, not including Tasmania, and slightly into South Australia. The red-bellied black snake prefers swampy, moist areas around creeks, rivers and lakes. They prey on rats, mice, frogs, lizards and birds, as well as fish and eels, as they are good swimmers. They also eat other snakes, including those of their own species.

Red-bellied black snakes are mostly active during the day, and are not particularly aggressive. When threatened, they will flatten their bodies and hiss loudly, but will usually attempt to escape if possible.

EFFECTS OF VENOMOUS SNAKE BITES ON DOGS

The following information is taken from the Australian Venom Research Institute. (I have added some descriptions in italics to help with the medical terms.)

“Whilst the nature and proportion of the relevant venom toxins (pro- and anti-coagulants, myotoxins and pre- and post-synaptic neurotoxins) will determine the range of effects of Australian snake bites, muscular paralysis is the dominant clinical sign in all serious and fatal cases. The paralysis is usually of the ascending type, first affecting the hindquarters and then progressing to complete paralysis, with death due to respiratory failure.

Although paralysis clearly aids the diagnosis, it is the earlier signs which are especially valuable. For example, in dogs and cats, dilated pupils with absent or reduced pupillary light reflexes appear to be an early and most important (although variable) sign that significant envenomation has occurred. Only in severely envenomated cases may paralysis occasionally be seen before pupillary dilation. The occurrence of pre-paralytic signs almost invariably indicates the patient has received a lethal dose of venom.

The severity of illness will vary considerably from animal to animal and snake bite can produce diverse clinical signs (see table). Any or all of the following signs may be observed:

- trembling
- vomiting
- salivation
- defecation
- ataxia – lack of co-ordination of muscle movement (wobbly legs etc)
- dilated pupils
- slow or absent pupillary light reflexes
- respiratory distress
The onset of signs may be sudden. The animal may collapse dramatically within a few minutes of the bite, then appear to recover completely over the next thirty minutes and then deteriorate with evidence of systemic poisoning. This sudden collapse in dogs may be due to cor pulmonale (failure of the right side of the heart by high blood pressure) and inadequate left ventricular filling caused by transient acute obstruction of the pulmonary circulation and indicates severe envenomation. This effect occurs with brown and tiger snake envenomation and possibly with taipan envenomation.

Other animals may become ill within minutes of the bite and progressively worsen over the next few hours. In only about 30 per cent of cases can the bite site be found on the animal and there is usually little swelling in the area involved. Sometimes the bite site is found because it is bleeding.

### The main early clinical signs in dogs and cats suffering from snake bite

<table>
<thead>
<tr>
<th>Sign</th>
<th>% seen in dogs</th>
<th>% seen in cats</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dilated pupils</td>
<td>74</td>
<td>87</td>
</tr>
<tr>
<td>Absent or sluggish pupil light reflexes</td>
<td>70</td>
<td>92</td>
</tr>
<tr>
<td>Hind limb ataxia</td>
<td>59</td>
<td>53</td>
</tr>
<tr>
<td>Salivation</td>
<td>77</td>
<td>0</td>
</tr>
<tr>
<td>Vomiting</td>
<td>66</td>
<td>29</td>
</tr>
<tr>
<td>Rapid respiration</td>
<td>51</td>
<td>36</td>
</tr>
<tr>
<td>Depression</td>
<td>44</td>
<td>73</td>
</tr>
</tbody>
</table>

All dogs presented for treatment within one hour of the bite, but the average time for the cats was twenty-one hours. This is consistent with the findings that onset of symptoms of envenomation in dogs (1-6 hours) is faster than the onset for cats (15 hours).”
What to do in the event of a snake bite

Try to identify the type snake (colour of the snake, approximate size, any distinctive markings) in order to match the anti-venom. If the bite area can be found the vet can take a swab of the bite site using a snake detection kit to identify the snake venom. However, identifying the type of snake can expedite treatment if your identification matches the dog’s symptoms.

Seek immediate medical attention and ring ahead to alert the vet clinic that you will be arriving. It assists the vet in planning your dog’s treatment.

Treating the dog before arriving at the vet.

Travelling to the vet’s clinic can take time and the more venom that has been injected into your dog, the worse your dog’s chances become of surviving.

You can assist your dog’s chances of survival by applying a pressure bandage to a limb bite. This is a firm bandage not a tourniquet. Blood flow must remain to the area. Remember that bite areas may be very difficult to identify because of your dog’s hair. There is often no localized swelling and bite sites don’t always bleed.

Carry your dog if possible. Movement will spread the venom.

If the dog has been bitten on the face, apply hand pressure rather than a bandage.

Keep talking to your dog and try to remain calm and have the dog relax as much as possible.

Don’t wash the bite area or cut the wound in any way.

Veterinary treatment

Once you arrive at the vet clinic your vet will examine the dog and determine the stage of envenomation. Treatment will be determined by a number of factors, among them are the type of snake bite and the dog’s symptoms.

Treatment is usually via intravenous fluids and administration of anti-venom. Other drugs may also be administered to assist your dog’s recover.

Dogs that recover will show positive signs within twenty four to forty eight hours. If the dog survives, recovery will take about two days. Dogs that suffer from snake bites often need some time to fully recover their former health. Discussions with your vet regarding ongoing treatment for your dog’s health regime will be necessary.

Information on snake bites obtained from:

Australian Venom Research Institute
http://www.avru.org