



FEATURE



# *How to Help your Animals in Bushfires*

## FROM A VETERINARIAN

Dr Kat Gregory BVSc.MANZCVSc (Animal Behaviour; Anaesthesia & Critical Care)

Bushfires are part of our Australian landscape and it seems more important than ever that all of us should be prepared, not just for ourselves, but the animals with whom we share our lives.

Proactive management, is always the best approach.

### **What can you do to prepare for bushfire emergencies?**

1. Crate training: Animals need to be safely transported and may need to stay confined at times. If they are already comfortable to enter and remain in their crate, it can help them feel secure during stressful situations.
2. Ensure all dogs and cats have collars on: make sure there is identification attached to, or embroidered on the collar. Minimal information: Your mobile number and the animal's name. All pets should be microchipped: call the company that holds the data and make sure all contact details are up to date.

### **3. PET BUSHFIRE KIT**

- a) Prepare a basic animal first aid kit. Talk to YOUR vet. Examples: Some sterile saline (bottle/ bag), aloe vera gel/ silver sulfadiazine, betadine, basic bandages/ non-stick dressings. Any medications your animal normally needs.
  - b) bottled fresh water, bowl, bedding (include a woollen blanket), favourite toy, spare collar/ lead, your vet's contact details. (canned food)
4. Discuss with neighbours about where your pets are located when you are not home. Stay in touch with each other regarding plans during the fire danger period.
  5. Practise how you will move your animals, if you need to evacuate, and refine the process before the fire season.

### **If your animal is burned or affected by the fire**

#### **Prehospital Treatment of the Burned Patient**

The first consideration in treatment of the burned patient is to stop the burning process. Flames should be extinguished and any collars or harnesses that may become constrictive should be removed. Because the skin is slow to cool, the burning process may continue for some time after the patient is removed from the heat source. For this reason burned areas should be cooled with running water for 20 minutes, then cling wrap applied. The cling wrap can help to keep the wound clean and moist and also help to provide pain relief.



Cold water or ice should not be used as this can rapidly decrease the patient's body temperature and may contribute to increased wound depth by inducing vasoconstriction.

To avoid hypothermia during transport, the patient should be wrapped in several clean, dry sheets or blankets. Transport your animal to the nearest emergency veterinary facility for thorough assessment.

Some injuries may not be immediately obvious. If your dog has a heavy coat there can be burns you cannot see. Also, check their feet. Before summer, consider clipping a heavy coated dog.

Additionally, even if they are not obviously burned, the animal may still have significant damage to their airways: the associated morbidity due to airway and lung damage can be insidious.

## Airway Injury

**Thermal Injury:** Air travels through your pet's nose and mouth, into the trachea (windpipe), through the small airways, as it makes its way into the lungs. Smoke and high heat can damage the airways acutely, causing them to constrict and become inflamed. While damage to the lining of the airways will result in the risk of secondary pneumonia, it can take 2 to 3 days for thermal damage to become apparent, so pets evacuated from fires must be carefully monitored for several days.

**Carbon Monoxide Poisoning:** The concentration of carbon monoxide in smoky air can be high, resulting in carbon monoxide poisoning in pets.

Carbon monoxide binds more strongly to haemoglobin than oxygen does, preventing the haemoglobin from properly doing its job of carrying oxygen from the lungs to the body's tissues. When carbon monoxide poisoning is severe or lasts for hours, brain damage or death can occur due to lack of oxygen.

The most common signs of carbon monoxide poisoning in pets are an increased respiratory rate and abnormal sounds heard via stethoscope in the lungs during breathing. Some individuals will also develop cherry red mucous membranes and neurologic abnormalities.



## Delayed Complications

**Pneumonia:** Pneumonia may develop as a result of delayed complications from smoke inhalation. When the airways are damaged, they can't protect the lungs from inhaled bacteria and other microbes or fungal spores.

**Neurologic Damage:** Left untreated, smoke inhalation could show up as a neurological disorder later on. Your pet may have difficulty walking, exhibit changes in behaviour, and have seizures.

The effects can be temporary or lasting, depending on the extent of damage and the time your pet has been left untreated. Oxygen deprivation or direct chemical effects on the brain are what can cause neurologic damage.

## Treating Smoke Inhalation in Pets

The best action to take if you believe your pet has inhaled smoke is to get your dog or cat to your veterinarian as soon as possible. Smoke inhalation is typically treated with oxygen therapy, and the results can be good if the animal is brought in quickly.

Complications resulting from smoke inhalation may not be immediately apparent, so pet owners should monitor pets closely, even if they have already been examined by your vet. If you notice any changes to breathing, call ahead and return with your pet to the veterinary facility.

## Tips to help your Pet Avoid Smoke Inhalation

There are preventative measures you can take if a bushfire breaks out near your home

- Keep pets indoors if there is smoke in the air.
- Forgo using heating or air conditioning in the event of smoke in the environment if you can, as they tend to draw in air from the outside.
- If you must leave an area affected by a fire, look to move yourself and your pets to an area of higher elevation since smoke tends to settle in valleys.
- Consider evacuating to a coastal area, as air quality is generally better in these geographic locations.

***In summary – the welfare of your pets should be part of your emergency preparation for the bushfire season. The better prepared everyone is, the better you and your pets will cope when any emergency arises.***