



# Oxygen Therapy for Companion Animals

## What is the Smokey Paws kit?

Smokey Paws is a set of animal oxygen ( $O^2$ ) therapy masks for use on companion animals (for example, cats, dogs and small pets such as rabbits, gerbils and guinea pigs).

## When should the equipment be used?

Clinically, oxygen therapy is recommended for all unconscious animals, those having suffered smoke inhalation, other respiratory distress or trauma.

Operationally, oxygen therapy should only be administered following an assessment of animal, environmental and situational risks, with the appropriate control measures applied.

## Who can utilise this equipment?

Emergency responders, trained in the use of oxygen therapy with associated clinical governance and who have access to medical oxygen cylinders as part of their role.

## Key considerations

1. Remove the potential for injury to personnel through biting or scratching
2. Remove the risk of injury to other responders or the public through control of the animal
3. Understand organisational implications under the Animal Welfare Act 2006

**BARTA recommends that all animals receive definitive veterinary care as soon as practicable following unconsciousness, smoke inhalation, respiratory distress and trauma**



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## What is in the Smokey Paws bag?

Standard Smokey Paws equipment consists of 3 sizes of reusable pet oxygen therapy masks with 3 sets of tubing and connections that fit all regular medical O<sup>2</sup> cylinders.



## Recommended supporting equipment

Additional equipment to provide responders with options for control measures should include:

- Set of basket style muzzles
- 2 x mountain rope slip leads
- A towel or blanket

## Risk Awareness

It must be noted that responders may encounter a wide spectrum of animals in the domestic environment that will possess a range of defence mechanisms and associated hazards that cannot be covered in detail in this training.

A risk assessment should consider species/breed, size and characteristics of the animal and any additional risks identified through carrying out the BARTA 10 Steps to Situational Awareness (Incidents Involving Animals Initial training package 2020).

If in any doubt responders should seek advice from species specialists, veterinarians or animal tactical advisors.

## Recommended PPE

Organisations adopting Smokey Paws O<sup>2</sup> therapy equipment should ensure that responders have suitable and sufficient PPE and animal control equipment, commensurate with their policy for use.

Following risk assessment, structural firefighting PPE will afford a limited level of protection against scratches and bites. To reduce risk, control should always be gained through physical restraint or containment, prior to administering oxygen therapy.

Where the risk is deemed out of the scope of an initial trained team, additional PPE and restraint equipment, for example purpose made bite resistant gloves, sleeves and rigid leads, with associated intermediate level trained personnel should be utilised.

This would apply to all identified aggressive breed characteristics or trained aggression, for instance in cases involving security or other guarding type canines.

Responders should be aware that animals which might be considered low risk may change demeanour and become dangerous when stimulated by anxiety, injury or fear.

Those animals exhibiting anxious or aggressive behaviour are deemed to be naturally increasing their O<sup>2</sup> intake, therefore O<sup>2</sup> therapy on scene is less of a priority. However, a robust plan for management of associated risks must be initiated and attaining veterinary care is still a priority.



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# Using Oxygen Therapy at Incidents



## When should we use oxygen therapy?

Indicators for use of O<sup>2</sup> therapy for animals include unconsciousness, smoke inhalation, respiratory distress and trauma.

Animals exposed to fire gases are physiologically more sensitive than humans. If an animal does not display respiratory distress but has been exposed to fire gases, O<sup>2</sup> administration is still indicated.

## When to consider not using oxygen therapy?

Animals that are very stressed or aggressive will pose a risk to a responder and their aggressive or stressed behaviour will lead to a natural increase in oxygen intake.

## What are the considerations for an alternative to using the O<sup>2</sup> masks?

Animals that become anxious or distressed when a mask is applied may benefit from flow-by, which can be achieved by holding the mask or an open end of the tubing away from but in proximity to the nose.

Alternatively, and more efficient is creation of an oxygen enriched environment within a cage or improvised cage. This method will also be suitable when there are several small animals, such as rodents or kittens etc.

## Control and restraint

Loose animals should be contained or restrained to facilitate safe treatment and remove the chance of injury or escape. If an animal is already contained in a suitable and safe cage it is preferable if possible to leave in situ and create an oxygen enriched environment.



## Operational Use - Good Practice;

Canines will present the most likely casualty at a domestic fire. Assessment of risk must account for a dog's potential demeanour when it regains consciousness. Disorientation, anxiety and possible aggression should be considered.

If conscious and aggressive then do not attempt to apply the masks. Manage the risk by isolating the hazard, summon specialist assistance and arrange transfer direct to veterinary care.



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### **Considerations for unconscious dogs;**

- Risk assess the breed and size of the dog
- Consider correct casualty handling for rescue and numbers of personnel required
- As soon as practicable apply a slip lead or improvised lead
- For dogs requiring a two person carry, two leads should be applied
- Remove the dog to a casualty treatment area
- Check the face and airway
- Move the animal to a sternal position and ensure the airway is maintained
- Commence O<sup>2</sup> therapy at 5 litres per minute for minimum 20 minutes
- As soon as possible fit a basket muzzle in preparation for regaining consciousness and transfer to definitive veterinary care
- Continue oxygen delivery until transportation to veterinary care is available

### **Considerations for conscious dogs;**

- Risk assess the breed, size and demeanour of the dog
- As part of your situational awareness consider the type of dog and living environment
- As soon as practicable apply a slip lead or improvised lead
- Remove the dog to a casualty treatment area
- If safe to do so, check the face and airway
- Fitting a muzzle is good practice. It will minimise the risk of injury and pre-empt any behavioural changes
- Commence O<sup>2</sup> therapy at 5 litres per minute for minimum 20 minutes
- Use provided masks over the basket muzzle (remove the rubber seal) or flow by if the animal does not tolerate the mask.
- Consider an oxygen enriched environment for dogs that are contained for convenience or safety
- Continue oxygen delivery until transportation to veterinary care is available

**Note:** Basket muzzles allow a dog to pant and drink whilst supporting the use of the oxygen therapy mask when applied over the muzzle or alternatively via flow by.

### **Brachycephalic breeds**



Brachycephalic describes flat nosed breeds in both cats and dogs, such as bulldogs and pugs. If the snout or head fits inside the mask without causing distress, then still use it. Also consider flow by or an oxygen enriched environment.

Flow by oxygen delivery may be used as an alternative to the masks, however it should be noted that this will not deliver the same concentration of oxygen as when using the mask.

Early veterinary intervention is recommended for these breeds.



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## **Considerations for cats;**

- Wrap in towel for restraint and to protect the operator
- This will also reduce the chance of escape
- As soon as possible, remove the cat to a quiet area and contain
- Consider holding mask away from face for flow by, to reduce anxiety
- Use of an oxygen enriched cage environment (*Create initial environment using 15 litres per minute, reduce to 4 litres per minute when cat introduced*)
- Transfer as soon as possible to definitive veterinary care

## **General Considerations;**

- O<sup>2</sup> flow should commence before introducing the mask to the animal
- Flow rate should not exceed 5 litres per minute with the mask, this can be reduced if the animal is not tolerating
- In an oxygen enriched environment ensure there is ventilation to allow escape of CO<sup>2</sup>
- Use a flow rate of 15 litres per minute to enrich an environment ahead of animal placement
- Reduce to 4 litres per minute when the animal is introduced
- Where possible ensure a minimum of 20 minutes. (vets will usually continue O<sup>2</sup>)
- If veterinary care is immediately available, then consider a scoop and run approach
- If at all possible try to support recovery in a quiet, stress-free environment
- To maximise the benefit, place animal in sternal recumbency wherever possible and ensure airway is managed effectively
- Where safe to do so, utilise owners or responsible persons to provide reassurance to the animal and organise transportation to definitive veterinary care
- Where an owner does not have capacity, utilise local agreements or the RSPCA to facilitate removal to onward care
- Responders should complete an animal patient handover form to accompany the animal to veterinary care
- After use masks should be checked for damage, cleaned and re-stowed
- If masks or tubing have been damaged, contact Smokey Paws for replacement parts
- Cleaning can be carried out with mild soap and water



## **Information Gathering**

It's worth considering your operational area and identifying potential animal risks and available sources of specialist information and help, before an incident occurs.

1. Site specific risk information
2. Specialist advice
3. Local knowledge
4. On-site information and expertise
5. Inter-agency tactical advisers
6. Resource availability
7. Other agencies capabilities
8. Memorandum of Understanding



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## **Situational Awareness**

1. Consider species
2. Assess situation
3. Consider environment
4. Impact of people
5. Determine the task
6. Identify additional animal risks
7. Planning
8. Determine PPE and equipment
9. Appropriate skill sets
10. Communicate actions

## **Take home messages:**

- All animals requiring oxygen therapy should subsequently receive definitive veterinary care
- In every situation it is the responsibility of the responder to manage risk to themselves, their colleagues and the public
- Organising supportive care for animals is essential in fulfilling obligations under animal welfare legislation

## **Supporting information:**

- [\*\*Smoky Paws training package 2020\*\*](#)
- BARTA Incidents Involving Animals Initial training 2020
- [\*\*Animal Welfare Act 2006\*\*](#)
- [\*\*National Operational Guidance, Incidents Involving Animals\*\*](#)
- Patient handover form

These documents have been created by BARTA small animal critical care experts, in collaboration with the National Fire Chiefs Council Animal Rescue Practitioners Forum and the RSPCA.

For further information contact: [info@bartacic.org](mailto:info@bartacic.org)



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## BARTA Animal Casualty Handover Form

Name of Owner	
Address / Postcode	
Contact Details	
FRS Incident Number	
RSPCA Incident Number	
Time of Incident	
History of Incident	Fire / RTC / Entrapment / Chemical / Water / Fall / Unknown / Other
Further Details	
Name of Pet / Animal	
Breed	
Age	
Type of Trauma	
Exposure Time	
Injuries Identified	
Oxygen Given	Yes / No
Means of Application	O <sup>2</sup> Mask / Flow-by / O <sup>2</sup> enriched environment
Flow Rate	
Duration	



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