

Canine Catch-Neuter-Return (CNR) Good Practice Guides

Assessing pain post-operatively in street dogs

Learning Outcomes:

1. Explain why pain is detrimental to the dog's post-operative recovery from surgery
2. Explain why dogs need to be re-assessed following the administration of further pain relief
3. Describe how to use body and facial tension as pain indicators to recognise pain in street dogs

There is considerable evidence that pain in animals delays post-operative recovery. It lowers the immune system so there is an increased risk of post-operative infection, it increases the risk of self-trauma and delays wound healing, all of which can result in **wound breakdown**. This means further treatment and longer recovery in kennels which negatively impact on the mental and physical wellbeing of the dog.

“The inability to communicate verbally does not negate the possibility that an individual is experiencing pain and is in need of appropriate pain-relieving treatment” (Merskey and Bogduk, 1994). Although dogs cannot communicate verbally that they are painful, they do use body language and behaviour to communicate to other dogs and us. During CNR, all staff need to be able to recognise and assess pain in these free roaming dogs.

Just like you and I may differ in our experiences of pain, there is individual variation in dogs of their experience and presenting signs of pain, even when they have experienced the same stimuli and environmental conditions.

If the dog is assessed and recognised as being painful, pain relief should be prescribed by a veterinary surgeon and administered to the dog as soon as possible. Approximately 30 minutes after the administration of pain relief, the dog should be re-assessed. If the dog is still expressing pain behaviours, it may be that not enough pain relief was given to treat the amount of pain that this individual dog is experiencing.



A dog displaying signs of post-operative pain

There is currently no universally accepted guideline to determine the pain experience of dogs. Several pain scoring systems exist, such as the Glasgow Short Form Composite Pain Scale. This is used in veterinary hospitals across the UK for assessing pain in pet dogs. A study by Greenaway and Reece in 2013 trialed the use of this pain scale on free-roaming street dogs in a CNR programmes and found that this pain scale, although very good for assessing pet dogs, is less effective for assessing post-operative pain in street dogs who aren't used to being handled by people. The high levels of fear and anxiety experienced by the dogs during their capture, transport and handling meant that the dogs actually scored higher pre-operatively, compared to post-operatively when using this pain scale. Additionally, this study suggested that the street dogs may 'mask' their expression of pain behaviour post-operatively and only show obvious signs of pain when they are released back into their usual environment, when they feel less threatened.

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In order to recognise what is abnormal post-operative behavior, we must first know what normal looks like. A dog that has just undergone neuter surgery and is not painful will have a respiratory rate within normal limits, relaxed body and face and not be showing attention to the surgical wound.



A fairly comfortable dog resting on a soft bed after surgery

Shivering is often perceived as an indicator of pain, but it is a sign of anxiety or fear or that the dog is cold, but is not a pain behaviour.

Recognition of canine behavioural expressions of pain has been identified as an area requiring further training in many CNR programmes. The differing interpretations of pain behaviours in dogs between different communities, and the lack of a validated pain scale for free-roaming street dogs, makes it difficult to standardise training amongst staff.

There is ongoing research into the development of a pain scale for assessing pain in street dogs. A recent field study trialed using a visual pain scale focusing on indicators of facial and body tension as a non-invasive approach to pain recognition and assessment in street dogs. All of the visual indicators of pain behaviours were derived from validated pain scales, including the Glasgow Short Form Composite Pain Scale and facial grimace scales of other species.

This study identified the following pain behaviours:



Facial tension

1. **Orbital tightening** is when the muscles around the eyes contract, squeezing the eyes closed. With orbital tightening the eyelid can be partially or completely closed.
2. **Ear tension** is when the ears are tilted backwards or flattened making it appear as though the distance between the bases of the ears has widened.

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3. **Tense mouth** is when the muscles around the mouth are tense making the angle of the mouth straighter.

Body tension

4. **Tucked abdomen** is when all of the abdominal muscles are contracted and pulled inwards.
5. **Curved back** is when the muscles along the length of the body are tense and instead of a straight back, it appears curved.
6. **Tense/rigid limbs** is when the limbs are held straight out from the body so that there is no pressure on the abdomen.
7. **Attention to wound** is when a dog repeatedly turns to look at the surgical wound and may or may not also try to lick the wound which can result in self trauma to the wound which can result in wound breakdown.
8. **Head lowering** is where the head and neck are tense and being held below the level of the back which is not a normal posture for a comfortable dog.

Additional pain behaviours:

9. **Vocalisation** is not necessarily a pain behaviour but when other pain behaviours are present, vocalisation can be associated with pain.
10. **Reluctance to move** is when the dog may be standing or sitting with a tense body and does not move when approached by a person or another dog as it may be painful for the dog to move.

Checklist:

- ✓ Experience and presentation of pain will vary between individual dogs
- ✓ Recognition of pain behaviour is essential to ensure sufficient pain relief has been administered and is an area requiring further training in many CNR programmes
- ✓ Always re-assess the dog after ~30 minutes following pain relief administration, as further pain relief may be required
- ✓ Body and facial tension can be used as visual indicators of pain behaviour in free-roaming street dogs
- ✓ Facial tension – orbital tightening, ear tension, tense mouth
- ✓ Body tension – attention to wound, curved back, tucked abdomen, tense/rigid limbs, head lowering

References:

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