

## What if you see ...?

Analgesics must be administered as outlined in the UCUCA-approved protocol. When “as needed” analgesics are specified, animals must be monitored for signs of pain, and treated accordingly.

Listed below are easily identifiable indicators of pain in rabbits. This is neither a comprehensive nor specific list, and as such, other observations should be taken into account when assessing pain status in rabbits. **Please contact ULAM veterinary staff** for additional assistance with identification and/or treatment of pain.

### Appearance

(A) Interpretation of **facial expression** can be used to qualify pain. Below are images of rabbits who show varying levels of pain.

**Not present**      **Present**      **Pronounced**



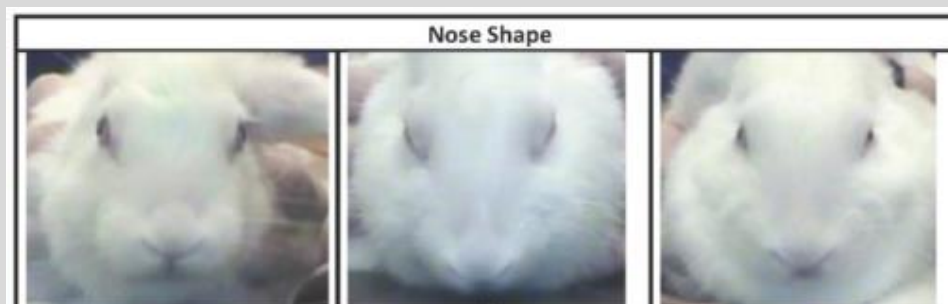
#### Orbital Tightening

The eyelid is partially or completely closed. The globes themselves may also be drawn in toward the head so that they protrude less. If the eye closure reduces the visibility of the eye by more than half it would be scored as “pronounced”<sup>1</sup>



#### Cheek Flattening

Contraction around the muzzle so that the whisker pads are pressed against the side of the face. The side contour of the face and nose is angular and the rounded appearance of the cheeks to either side of the nose is lost<sup>1</sup>



#### Nose Shape

The nares (nostril slits) are drawn vertically creating a more pointed nose that resembles a “V” more than a “U.” The tip of the nose may also be tucked under towards the chin exaggerating this appearance<sup>1</sup>

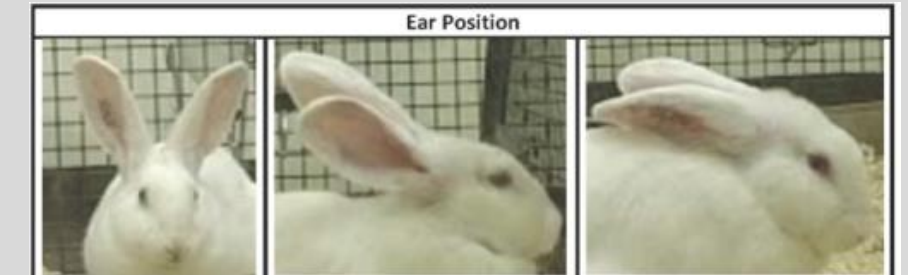


#### Whisker Position

Whiskers are straightened and extended horizontally or pulled back toward the cheeks instead of the normal position where whiskers tend to have a gentle downward curve<sup>1</sup>

#### Ear Position

Normally the ears are roughly perpendicular to the head, facing forward or to the side, held in an upright position away from the back and sides of the body with a more open and loosely curled shape. In pain the ears rotate away from normal position to face towards the hindquarters, tend to move backward and be held closer to the back or sides of the body and have a more tightly folded or curled shape (i.e. more like a tube)<sup>1</sup>



### Behavior

(C) When rabbits are experiencing pain, they may demonstrate one or several of the following **abnormal behaviors**:<sup>2</sup>

- |                                   |   |
|-----------------------------------|---|
| <b>Appetite</b>                   | <ul style="list-style-type: none"> <li>• Reduced food and/or water intake</li> </ul>  |
| <b>Activity and Posture</b>       | <ul style="list-style-type: none"> <li>• Reduced activity, or decreased interaction with environment</li> <li>• Restlessness or frequent alteration in posture</li> <li>• Hunched posture, or tensing of musculature</li> <li>• Increased or abnormal aggression</li> </ul> |
| <b>Attention to Surgical Site</b> | <ul style="list-style-type: none"> <li>• Scratching/licking at painful area</li> <li>• Failure to groom</li> </ul>  |
| <b>Other</b>                      | <ul style="list-style-type: none"> <li>• Increased salivation</li> <li>• Teeth grinding</li> <li>• Increased respiratory rate</li> </ul>  |

#### References

1. The Rabbit Grimace Scale images and accompanying descriptions are borrowed verbatim from: Keating SC, Thomas AA, Flecknell PA, et al. 2012. Evaluation of EMLA Cream for Preventing Pain during Tattooing of Rabbits: Changes in Physiological, Behavioural and Facial Expression Responses. PLoS ONE 7 (9) :e44437. doi: 10.1371/journal.pone.0044437.
2. Guidelines for the Assessment and Management of Pain in Rodents and Rabbits. [http://www.aclam.org/Content/files/files/Public/Active/position\\_pain-rodent-rabbit.pdf](http://www.aclam.org/Content/files/files/Public/Active/position_pain-rodent-rabbit.pdf)
3. Farnworth MJ, Walker JK, Schweizer KA, et al. 2011. Potential behavioral indicators of post-operative pain in male laboratory rabbits following abdominal surgery. Animal Welfare 20: 225-237.