



National Centre  
for the Replacement  
Refinement & Reduction  
of Animals in Research

## Grimace Scale Posters: Terms of use

The NC3Rs has produced A3-sized posters of the mouse, rabbit and rat grimace scales for display in laboratory animal facility rooms and corridors to help raise awareness about the scales and familiarise staff with the specific facial action units.

For a full list of available posters and information on and how to implement grimace scales in your facility please see our resource page: <https://www.nc3rs.org.uk/3rs-resources/grimace-scales/>.

### Print specifications

The proper use of this poster requires each of the facial action units to be clear and easily discernible, therefore it must be printed by a professional print service at the full A3 size.

This poster in this pdf has been setup to professional print standards and has crops and bleed added. Please use the print specification outlined below and the printer will trim the poster to the finished size.

- Finished Size: 420mm x 297mm (A3 portrait)
- Print specification: Full colour
- Paper specification (ideally): 170gsm silk

If you have any issues, or need the file in another format, please contact [enquiries@nc3rs.org.uk](mailto:enquiries@nc3rs.org.uk).

### Circulation and reproduction

The poster in this PDF should not be circulated without this covering page attached to it.

Any requests to reproduce this poster, or to include it in any publications or training materials, should be directed to [enquiries@nc3rs.org.uk](mailto:enquiries@nc3rs.org.uk). You should include how, why and where the poster will be used so that we can consider your case for approval. It is helpful to include any associated text, so we can see the context in which the poster will be put.


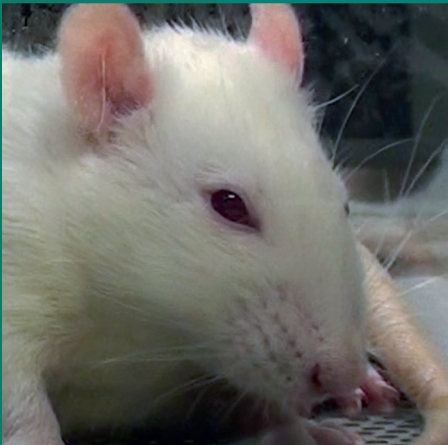
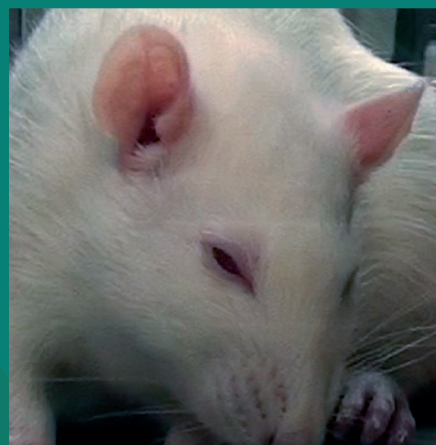
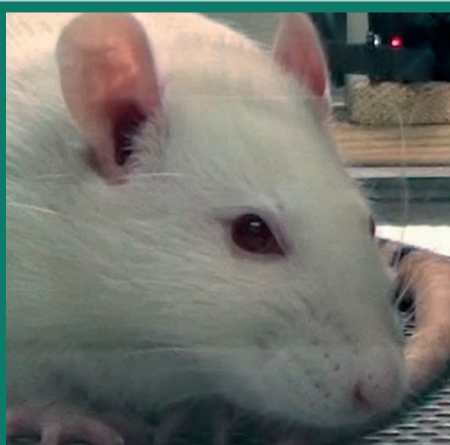
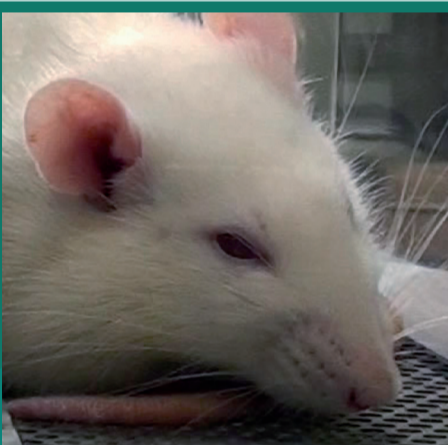

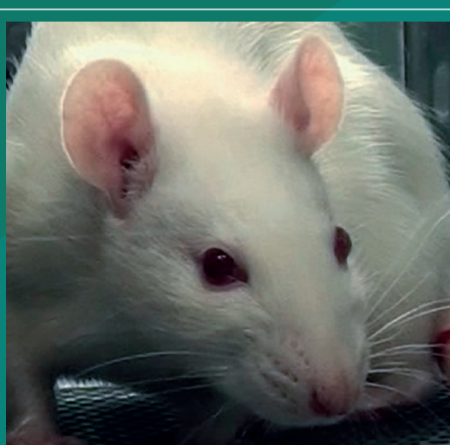



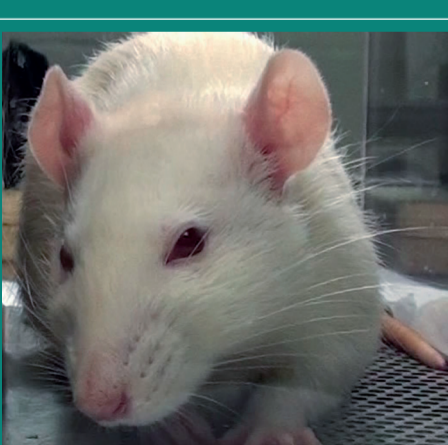

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# 大鼠痛苦表情评分

研究表明面部表情的改变可以作为评估大鼠疼痛的一种方法。

以下所显示的特有的面部行为单位被用来制定大鼠痛苦表情分级。这些行为单位的程度随操作程序后疼痛反应而增加，可以作为临床评估的一部分。

行为单位仅用于清醒动物，每一个动物应观察足够长的时间，以避免将与动物福利无关的简短的面部表情变化纳入评分。

	没呈现“0”	中度呈现“1”	明显呈现“2”
<b>眼窝发紧</b> <ul style="list-style-type: none"> <li>▪ 眼睑闭合 (眼窝面积变窄)</li> <li>▪ 眼周可能看到一皱纹</li> </ul>			
<b>鼻子/面颊变平</b> <ul style="list-style-type: none"> <li>▪ 鼻梁变平且延长</li> <li>▪ 面颊变平 (潜在的凹陷表情)</li> </ul>			
<b>耳朵变化</b> <ul style="list-style-type: none"> <li>▪ 耳朵向内弯且向前成角而现成一尖形</li> <li>▪ 耳朵间距离增大</li> </ul>			
<b>胡须变化</b> <ul style="list-style-type: none"> <li>▪ 胡须变硬且顺着面部成角</li> <li>▪ 胡须可能‘成束’</li> <li>▪ 胡须失去它们自然向下的曲线</li> </ul>			

阅读原文献:

Sotocinal SG, Sorge RE, Zaloum A, Tuttle AH, Martin LJ, Wieskopf JS, Mapplebeck JCS, Wei P, Zhan S, Zhang S, McDougall JJ, King OD, Mogil JS. 2011. The Rat Grimace Scale: a partially automated method for quantifying pain in the laboratory rat via facial expressions. *Molecular Pain* 7: 55. doi:10.1186/1744-8069-7-55

就指导关于如何应用大鼠痛苦表情计分，这一技术的基础和有效性的科研文章，以及它在其它动物种类的使用，请访问: [www.nc3rs.org.uk/grimacescales](http://www.nc3rs.org.uk/grimacescales)

如需求这个海报的复印件，请发电子邮件: [enquiries@nc3rs.org.uk](mailto:enquiries@nc3rs.org.uk)

NC3Rs 提供相关3Rs 资源于: [www.nc3rs.org.uk/resources](http://www.nc3rs.org.uk/resources)

图片由Jeffrey Mogil博士友情提供