



Laboratory Animal Resources Center

Body Condition Scoring (BCS) of Mice Revised 2019

Body Condition Scoring of Mice

Description of procedure:

Scoring the body condition of rodents is a non-invasive method for assessing health and establishing endpoints for adults where body weight is not a viable monitoring tool, such as with tumor models, pregnancy, or young growing animals.

Body condition scores (BCS) range from 1 (emaciation) to 5 (obesity). An anticipated BCS of 2 (under conditioned) or lower, requires justification in the protocol.

Scores are determined by frequent visual and hands-on examination of each animal. The hands-on evaluation is done by gently holding the mouse by the base of the tail and passing a finger over the back and hip bones. The findings are matched to the descriptions and diagrams below to determine a score. Scores must be documented for each animal.

Guidelines:

Enhanced monitoring of attitude, activity, appetite and hydration is required once animals reach a BCS of 2. Consult with a LARC veterinarian to determine endpoints and monitoring frequency.

If thin body condition (score of 2 or less) is expected as part of the research model this must be justified in the protocol. In the IACUC protocol, investigators should describe the conditions, complications, and criteria (e.g. uncontrolled infection, loss of more than 15% body weight, body condition score endpoint, etc.) that would lead to removal of an animal from the study, and describe how this will be accomplished (e.g. stopping treatment, euthanasia).



BC 1

- Mouse is emaciated.
- *Skeletal structure extremely prominent; little or no flesh cover.*
 - *Vertebrae distinctly segmented.*



BC 2

- Mouse is underconditioned.
- *Segmentation of vertebral column evident.*
 - *Dorsal pelvic bones are readily palpable.*



BC 3

- Mouse is well-conditioned.
- *Vertebrae and dorsal pelvis not prominent; palpable with slight pressure.*



BC 4

- Mouse is overconditioned.
- *Spine is a continuous column.*
 - *Vertebrae palpable only with firm pressure.*



BC 5

- Mouse is obese.
- *Mouse is smooth and bulky.*
 - *Bone structure disappears under flesh and subcutaneous fat.*

A "+" or a "-" can be added to the body condition score if additional increments are necessary (i.e. ...2+, 2, 2-...)