Loyola University Chicago  
Comparative Medicine Facility  

Standard Operating Procedure  

SOP Number: 02-18-5241  
Service: Research  
Operating Section: Clinical Medicine  
Unit: CMF  
Title: Body Condition Scoring System for Nonhuman Primates  

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Purpose:  
To outline the scoring system used to evaluate body condition in nonhuman primates.  

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Procedure:  

1) Body Condition Scoring (BCS): Scoring of body condition assesses overall health, nutrition, and performance. This body condition scoring employs a 1-9 scale, with mid-range values representing more optimum body condition, lower values representing lean or emaciated conditions and higher values representing excessive body fat.  

2) Assessment of body condition should be conducted by palpation, not by visually scoring. The following areas should be palpated for the evaluation of the animal:  
   a) Hips/Pelvis (ilium, sacrum, ischium)  
   b) Spine (thoracic and lumbar)  
   c) Thorax (ribs and scapula)  
   d) Muscle mass (epaxials, gluteals, deltoids)  
   e) Subcutaneous fat  
   f) Fat deposits (abdominal, inguinal, axillary)  

3) The following body condition scoring will be used:  
   a) 1 - Emaciated – Very prominent hip bones (easily palpable and likely visible), prominent facial bones, spinous processes, and ribs. Minimal to no muscle mass is palpable over ilium or ischium. Anus may be recessed between ischial callosities. Body is very angular, no subcutaneous fat layer to smooth out prominences.  
   b) 2 - Very Thin – Hips, spinous processes, and ribs are prominent. Facial bones may be prominent. There is very little muscle present over the hips and back. Anus may be recessed between ischial callosities. Body is angular, no subcutaneous fat to smooth out prominences.  
   c) 3 - Thin – Very minimal fat reserves, prominent hip bones and spinous processes. Hips, spinous processes, and ribs are easily palpable with only a small amount of muscle mass over hips and lumbar region.  
   d) 4 - Lean – Overlying muscle gives hips and spine a more firm feel. Hip bones and spinous processes are readily palpable, but not prominent. Body is less angular because there is a thin layer of subcutaneous fat.  
   e) 5 - Optimum – Hip bones, ribs, and spinous processes are palpable with gentle pressure but generally not visible. Well-developed muscle mass and subcutaneous fat layer gives spine and hips smooth but firm feel. No abdominal, axillary, or inguinal fat pads.  
   f) 6 - Slightly Overweight – Hip bones and spinous processes palpable with firm pressure but are not visible. Bony prominences smooth. Rib contours are smooth and only palpable with firm pressure. Small abdominal fat pad may be present.
7 - Heavy – Bony contours are smooth and less well defined. Hip bones, spinous processes, and ribs may be difficult to palpate because of more abundant subcutaneous fat layer. May have fat deposits starting to accumulate in axillary, inguinal, or abdominal areas.

8 - Obese – This animal will often have prominent fat pads in the inguinal, axillary, or abdominal region. Abdomen will be pendulous when animal is sitting or ambulating. Hip bones and spinous processes difficult to palpate. Bony contours smooth and poorly defined.

9 - Grossly Obese – Obvious, large fat deposits in the abdominal, inguinal and axillary regions. Abdominal palpation is very difficult due to large amount of mesenteric fat. Pronounced fat deposits may alter posture/ambulation. Hip bones, rib contours, and spinous processes only palpable with deep palpation.

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