



Aug 13, 2025

Fecal output, score, and water content

DOI

<https://dx.doi.org/10.17504/protocols.io.6qpvrw6qplmk/v1>

Anastasiya Moiseyenko¹

¹California Institute of Technology



Anastasiya Moiseyenko

California Institute of Technology

Create & collaborate more with a free account

Edit and publish protocols, collaborate in communities, share insights through comments, and track progress with run records.

Create free account

OPEN  ACCESS



DOI: <https://dx.doi.org/10.17504/protocols.io.6qpvrw6qplmk/v1>

Protocol Citation: Anastasiya Moiseyenko 2025. Fecal output, score, and water content. **protocols.io**
<https://dx.doi.org/10.17504/protocols.io.6qpvrw6qplmk/v1>

License: This is an open access protocol distributed under the terms of the **Creative Commons Attribution License**, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited

Protocol status: Working

We use this protocol and it's working

Created: August 01, 2025



Last Modified: August 13, 2025

Protocol Integer ID: 223858

Keywords: ASAPCRN, constipation, water content, bristol stool scale, parkinson's disease, fecal output, fecal pellets animal, number of fecal pellets animal, fecal output, constipation, general signs of constipation, bristol stool scale scoring, mouse model, water content protocol, measuring general sign, water, animal

Funders Acknowledgements:

Aligning Science Across Parkinson's

Grant ID: ASAP-020495

Aligning Science Across Parkinson's

Grant ID: ASAP-000375

Heritage Medical Research Institute

Abstract

Protocol for measuring general signs of constipation in mouse models using number of fecal pellets animals are able to produce over a certain amount of time, Bristol stool scale scoring, and water content.

Materials

1. Eppendorf tubes
2. Scale
3. Incubator

Pre-assay

- 1 Weigh and record weight of tubes for fecal pellet collection (one per mouse).

Fecal output

- 2 Habituate animals to behavior testing room for 1hr prior to start of assay.
- 3 Individually place each animal into empty, bedding-free, standard mouse cages.
- 4 Set a timer for 15 minutes.
- 5 Once 15 minutes are up, count the number of fecal pellets produced by each mouse in the cage.

Fecal score

- 6 Remove each animal for individual cages and transfer back into home cage.
- 7 Assess fecal pellets in empty cage and record a score based on the Bristol stool scale:
 - 7.1 A score of 1 is given for fecal pellets that are small, dry, hard lumps, indicating severe constipation.
A score of 2 is given for lumpy, dry, but sausage-like fecal pellets, indicating mild constipation.
A score of 3 is given for mildly dry sausage-like pellets with cracks in the surface.
A score of 4 is given for smooth, soft, sausage or snake-shaped pellets.
Both scores of 3 and 4 are considered normal.
A score of 5 is given for soft blobs with clear-cut edges. A score of 6 was given for fluffy pieces with ragged edges, indicating mild diarrhea.
Lastly, a score of 7 is given for an entirely liquid consistency, indicating severe diarrhea (Lewis et al., 1997)



Water content

- 8 Collect 2-3 fecal pellets in pre-weighed tubes from each empty cage. and then pellets were incubated at 65°C for 24 hours. Tubes and dry fecal pellets were re-weighed and percentage of water content calculated.
- 9 Take the weight of the tube and wet fecal pellet and record.
- 10 Incubate pellets at 65°C for 24 hours with tube caps open.
- 11 After incubation, re-weigh tubes and dry fecal pellets.
- 12 Calculate percentage of water content as the difference between wet and dry weight as a percentage of wet weight.

Protocol references

1. Lewis, Simon J., and Kenneth W. Heaton. "Stool form scale as a useful guide to intestinal transit time." *Scandinavian journal of gastroenterology* 32.9 (1997): 920-924.