

Description of Procedure:

The grid or ladder walking test (often referred to as the foot fault task) aims to assess deficits in sensory motor function.

The apparatus consists of a grid floor or a horizontal ladder. The grid or ladder is slightly raised above a surface. Each animal is placed at one end of the grid or ladder and monitored or videotaped from the side as they traverse the grid. The number of forelimb and hind limb placement errors as the animal traverses the grid is scored.

Supplies:

- Video Camera (optional)
- Wire grid (Figure A.) or ladder (Figure B.)

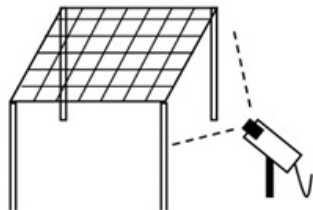
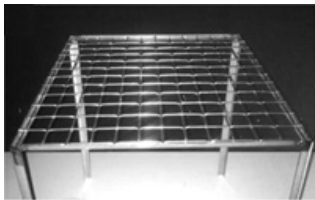


Figure A.

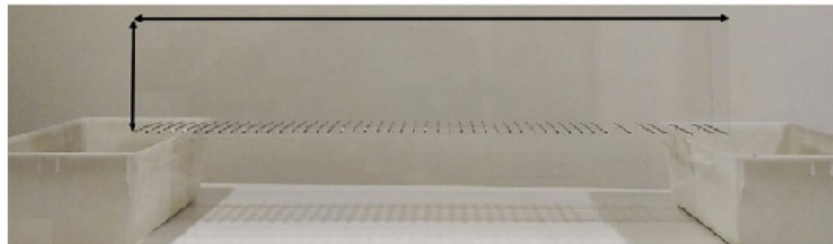


Figure B.

Procedure Steps:

1. Animals are placed on a wire or metal grid or ladder and are observed as they navigate over the grid.
2. A foot-miss is counted when a paw protrudes through the grid or ladder rung.

IACUC protocol:

The length of test session and frequency should be included in Section G. (Procedures).

References:

O.Y. Chao, M.E. Pum, J.-S. Li, J.P. Huston, The grid-walking test: assessment of sensorimotor deficits after moderate or severe dopamine depletion by 6-hydroxydopamine lesions in the dorsal striatum and medial forebrain bundle, *Neuroscience*, Volume 202, 2012, Pages 318-325.

[Front Behav Neurosci.](#) 2022; 16: 892010. The Foot Fault Scoring System to Assess Skilled Walking in Rodents: A Reliability Study.