



Behavioural tests for locomotor coordination and sensory deficits

Three models are eligible for the detection of deficits after ischemia, trauma and candidate drug treatment and in Parkinsonism and can be combined. These test can be potentially used to measure **late** neuroprotective or neuroregenerative effects.

Beam walk

Trained rats cross a metal beam from a starting position to the home cage. The time needed to cross the beam is taken as parameter to quantify the deficits.

Normal walk



Coordination impairment



Rat in a Rotarod device



Rotarod

Rats are placed on a rod that is rotating with increasing speed (from 6 rpm to 60 rpm within 180 s). The dwell time is taken as parameter to quantify the deficits.

Ladder rung walking test

Rats cross a horizontal ladder with variable spacings between rungs from a starting position to the home cage. The spacing pattern is varied between sessions. A foot fault scoring system (Riek et al., 2004) for correct forelimb and hindlimb placement is used to quantify deficits.

Before lesion



After lesion

