

# Tardieu Scale

**Name:**

**Date:**

The Tardieu Scale test is conducted by a trained healthcare professional, such as a physiotherapist, with experience assessing spasticity.

## Procedure:

### 1. Preparation

The patient is positioned comfortably, typically supine or sitting, with the targeted limb supported. The examiner explains the procedure to the patient and ensures they are relaxed.

### 2. Examination of muscle groups

The examiner identifies the muscles or groups to be assessed, such as the elbow flexors or knee extensors.

### 3. Passive stretch at three different velocities

The examiner moves the joint through its range of motion at three different speeds:

- V1: As slow as possible to assess the range of motion without triggering a stretch reflex.
- V2: A slightly faster speed, resembling the speed of limb movement during daily activities.
- V3: The fastest possible speed, aiming to provoke the stretch reflex and assess spasticity.

### 4. Measurement and grading

- Angle of catch: At each velocity, the examiner notes the angle at which muscle resistance is first encountered, known as the "angle of catch." This is typically measured using a goniometer.

Quality of muscle reaction: The examiner also grades the quality of the muscle's response to passive stretch on a 5-point scale, ranging from 0 to 4:

- 0** - No resistance throughout the passive movement.
- 1** - Slight resistance, with no clear catch at a precise angle.
- 2** - Clear catch at a precise angle, interrupting the passive movement, followed by the release.
- 3** - Fatigable clonus (muscle contractions) occurring at a precise angle lasting less than 10 seconds.
- 4** - Inextensible muscle and joint, with a rigid catch at a limited angle.

### 5. Recording and interpretation

The examiner records the angle of catch and the quality of muscle reaction for each velocity. The difference in the angle of catch between V1 and V3 can be used to quantify spasticity. Larger differences indicate more severe spasticity. The recorded information helps guide treatment decisions and monitor the effectiveness of interventions.

*It is important to note that the Tardieu Scale is a subjective assessment, and its reliability may vary depending on the examiner's experience and skill in applying the test.*

## Scoring

The Tardieu Scale assesses spasticity using the catch angle and the muscle reaction quality. Here is a breakdown of the scoring for each component:

### 1. Angle of catch

The angle at which muscle resistance is first encountered during the passive stretch at each velocity (V1, V2, and V3) is measured using a goniometer. The difference in the angle of catch between the slowest (V1) and the fastest (V3) velocities is used to quantify spasticity. A larger difference indicates a higher degree of spasticity.

### 2. Quality of muscle reaction

The examiner grades the muscle's response to passive stretch on a 5-point scale, ranging from 0 to 4:

**Grade 0:** No resistance throughout the passive movement.

**Grade 1:** Slight resistance, with no clear catch at a precise angle.

**Grade 2:** Clear catch at a precise angle, interrupting the passive movement, followed by the release.

**Grade 3:** Fatigable clonus (muscle contractions) occurring at a precise angle lasting less than 10 seconds.

**Grade 4:** Inextensible muscle and joint, with a rigid catch at a limited angle.

The Tardieu Scale does not produce a single composite score. Instead, the angle of catch and the quality of muscle reaction are considered together to assess the severity of spasticity and inform treatment decisions. It is crucial to remember that the Tardieu Scale is a subjective assessment, and its reliability may vary depending on the examiner's experience and skill in applying the test.

## Notes and Diagnosis: