

Exercise Therapy

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MMT for hamstrings

Muscle Group

Hamstrings: Biceps femoris, Semitendinosus, Semimembranosus

Action: Knee flexion (also assist in hip extension)

As per the Daniels & Worthingham's Muscle Testing, Medical Research Council

Principle of MMT

Grading: 0 → 5 (contraction → ROM → gravity → resistance)

GRADE-WISE MMT (HAMSTRINGS)

Grade 0 (Zero) – No contraction

Finding: No visible or palpable contraction

Testing Method: Patient prone, Palpate hamstring tendons behind knee

Clinical Significance: Indicates severe weakness / sciatic nerve involvement

Grade 1 (Trace) – Flicker

Finding: Slight contraction, no movement

Testing Method: Palpate medial/lateral hamstrings during attempted flexion

Grade 2 (Poor) – Movement without gravity

Finding: Full ROM in gravity-eliminated position

Position: Side-lying

Example: Knee flexion with leg supported

Grade 3 (Fair) – Against gravity

Finding: Full ROM against gravity

Position: Prone

Movement: Flex knee to ~90°

Clinical Note: Important for walking and functional mobility

Grade 4 (Good) – Moderate resistance

Finding: Full ROM against moderate resistance

Testing Method: Apply resistance at distal leg (above ankle)

Additional Detail: Medial rotation will tests semitendinosus/semimembranosus, Lateral rotation will tests biceps femoris

Grade 5 (Normal) – Full strength

Finding: Full ROM against maximal resistance

Testing Method: Strong resistance at distal leg

REMEMBER Patient position:

Grades 0–2 → Side-lying

Grades 3–5 → Prone

Therapist position: Stabilize thigh, Apply resistance at distal leg

Movement: Knee flexion

Avoid: Hip flexion, Trunk rotation

Reference: Kisner, Carolyn Therapeutic exercise: foundations and techniques / Carolyn Kisner, Lynn Allen Colby. — 5th ed.

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