

Prices Physiotherapy Assessment of Hamstring Strains –A Summary

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An assessment procedure for hamstring injuries is proposed on the basis of current evidence, a four year Master of Physiotherapy (Research-Hamstring strains AFL football)- including the assessment of 72 AFL hamstring injured players on 3 occasions post injury) at Melbourne University, 11 years experience as an AFL physiotherapist, 8 years APA Titled Physiotherapist and 25 years as a private practice physiotherapist.

An impression is gained from a group of tests usually progressed based on the results of prior tests.

Is it a hamstring strain?

- Usually an “incident” eg Acceleration or sprinting
- Often unable to continue playing at full pace
- Locally tender
- + strength or flexibility tests

Or referred pain in the posterior thigh?

- Often gradual onset eg worse after sport or during/after sitting
- Able to continue playing (albeit with soreness)
- Vague pain that may extend into gluteals or calf
- Vague strength or flexibility signs
- Vague or variable tenderness
- + adverse neural tension signs or local signs that change with treatment directed at neural, lumbar, sacro-iliac or gluteal trigger points

Proposal for specific grading of a hamstring muscle strain corresponding to pathological severity.

Grade 1 - the athlete may notice a mild or moderate pain in the posterior thigh, they may be able to continue to train or play, or may not be aware of the discomfort until after cooling down or the next day.

Clinical assessment within the first 3 days reveals;

Negligible or less than 10 degree AKE deficit which may or may not be painful,

Strength tests may or may not be painful (strength tests in outer range are more likely to be painful, eg HSDT, TOST [Hamstring Drag Test or Take of the Shoe Test] or bridging with heel on a chair)

Able to walk pain-free within 1 day,

Able to jog pain-free within 2 days,

Successfully returns to play in 2 weeks or less.

Grade 2- the athlete notices moderate posterior thigh pain while sprinting, kicking jumping or stretching and usually has to stop the activity and limp away.

Clinical assessment within the first 3 days reveals;

Greater than 10 degree AKE deficit which reproduces posterior thigh pain,

Positive HDT or TOST (hamstring drag test or take of the shoe test),

Unable to walk pain-free within 1 day,

Unable to jog pain-free within 2 days,

Unable to return to competition within 3 weeks.

More likely if positive MRI, past history of hamstring strain (particularly if recent) and if a lateral distal strain.

Grade 3 - This strain represents complete rupture or avulsion. These are often associated severe pain in the hamstring compartment and result in extensive bruising (Devlin 2000),

Clinical assessment within the first 3 days reveals;

Greater than 30 degree AKE deficit which reproduces posterior thigh pain,

Positive HDT or TOST (hamstring drag test or take of the shoe test),

Unable to walk pain-free within 3 days, often requires assistance to ambulate.

Unable to jog pain-free within 7 days,

Often able to palpate a defect in the hamstring compartment or significant tenderness in the sub-ischial region.