

# Teaching Video NeuroImages: The elusive L5 reflex



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A 61-year-old man with a history of type 2 diabetes, obesity, and lower back pain had acute severe back pain with radiation down the right lateral-posterior thigh and across the anterior calf. MRI demonstrated severe right L5-S1 foraminal stenosis and EMG showed chronic right L5 reinnervation. The medial hamstring (semitendinosus and semimembranosus muscles) represents an L5 reflex.<sup>1,2</sup> This reflex is difficult to elicit in supine or seated positions (video 1 on the *Neurology*<sup>®</sup> Web site at [www.neurology.org](http://www.neurology.org)), but is well-visualized with the patient prone (video

2). In this patient, the medial hamstring reflex was obvious on the left, but not the right. Patellar (L4) and ankle jerk (S1) reflexes were normal bilaterally, supporting an L5-specific lesion.

## REFERENCES

1. Felsenthal G, Reischer MA. Asymmetric hamstring reflexes indicative of L5 radicular lesions. *Arch Phys Med Rehabil* 1982;63:377–378.
2. Jensen OH. The medial hamstring reflex in the level-diagnosis of a lumbar disc herniation. *Clin Rheumatol* 1987;6:570–574.

Supplemental data at  
[www.neurology.org](http://www.neurology.org)

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