

Foot Drop

A muscular weakness resulting in inability to lift the foot up (Dorsiflex the ankle)



Symptoms

- The inability to lift the foot or toes up when walking
- Patients often report a slapping as their foot strikes the ground
- Walking may require a high knee to avoid dragging the toes
- Patients may report tripping over or scuffing the toes of their shoe
- There may be accompanying low back pain, shooting leg pain or pins and needles and numbness



Signs

- Weakness of ankle dorsiflexion
- Weakness of big toe dorsiflexion

- Important to check for:
 - Weakness of plantarflexion
 - Reflexes
 - Sensation



Causes

- Lumbar disc prolapse typically L4/5
- Common peroneal nerve palsy
- Medical
 - Diabetic neuropathy
 - Motor neuron disease
- Rare
 - Lumbosacral plexus lesion
 - Spinal tumour



Investigations

- MRI Lumbar spine
 - This should be performed urgently if the weakness is significant

- Nerve conduction studies and Electromyogram (NCS and EMG)
 - An important test to localize the lesion affecting the nerve supply to the muscles. Can indicate the severity of the injury, timing, and whether there is early recovery of function or on-going nerve injury



Discogenic foot drop

- Lumbar disc prolapses generally heal
- If the weakness is significant urgent surgery can improve the chance of a good restroration of ankle strength
- If the weakness is very mild physiotherapy may avoid the need for surgery, and can be associated with good results
- The EMG may help guide the management
- Pain responds quickest and best following discectomy, followed by recovery of weakness, numbness may take up to 18 months to recover



Management of postoperative residual weakness

- Early physiotherapy to the foot
- Judicious use of splints
- Confirmation of nerve root decompression (MRI)
- Prognostication with repeat EMG
- Consideration of tendon transfer surgery

