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Foot Drop / Peroneal Nerve Palsy

Foot drop is a condition where the muscles of the front of the leg are not strong enough to pull the ankle “up” - dorsiflexion. When this occurs - the weakness results in the foot “dragging” or hanging low when walking. Additionally, the muscles that help to hold the foot to the outside are weak and the ankle can feel very unstable, making walking very difficult. The most common reason for this condition to occur is injury to the common peroneal nerve. This nerve sends the signal that powers the muscle along the front (anterior) and outside (lateral) aspect of the leg and can be injured from trauma (most common). Other reasons also can result in a foot drop including neuropathy, problems with the nerves in the back or from hip surgery.

Most patients will have a traumatic event or prior surgery that correlates with the onset of the weakness. A physical exam is performed to determine the extent of the weakness and to determine which muscles are still working and how strong they are. In order to understand the reason for the problem, routinely a test to evaluate the nerves - called an EMG/NCV would be ordered. This test will help to understand if the problem is from your nerves and help to localize the location of the injury. Although rare, in some cases a foot drop can be from damage to muscle or tendon without any nerve injury.

Treatment is dependent on the reason for the foot drop and if secondary to a nerve injury, how recently the injury has occurred and where. Non-surgical management is initially started with physical therapy to maintain mobility and maximize strength in addition to the use of a brace called an AFO - ankle foot orthosis. The brace helps to hold the foot in a neutral position and minimizes the risk of a contracture. In some patients, this is sufficient and no further intervention is required, although this will not fix the problem it is a more of a permanent crutch. Surgery can be done to improve the problem and we have published literature and lectured on the subject noting that earlier intervention - within 1 year does appear to be better than waiting the traditional 2 years. The reason for this is that there is muscle atrophy and the ability to work on the nerve is lost after one year has gone by. Nerve surgery alone does not routinely allow for full recovery, but we work with our plastic surgeons who are world experts in nerve surgery as well to determine the best course of action. In many situations, a combined surgery to take the scar off of the nerve

and perform a tendon transfer - where one of the tendons that is still working is routed to restore the function of the ones that do not. Nothing can restore a "normal" ankle, however, this surgery is very effective in improving function for non-impact activity and help to eliminate the need for the brace for many patients.