

## Evaluation and Management of Gait in Transverse Myelitis

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Walking is normally a very efficient activity, so that, at self-selected speeds, it can be continued more or less indefinitely. Relaxed standing requires very little muscle activity, just the soleus and a few shoulder muscles. But normal standing and walking require flexibility and proper timing of muscle activity, which means that muscles should contract when they are supposed to contract and relax when they are supposed to relax. In transverse myelitis, muscles may not only be weak, they may develop spasticity, which is an increased resistance to stretch, so that they make desired movements difficult or impossible. If muscle activity is unbalanced, it will promote contractures, which are relatively fixed soft tissue (muscle and connective tissue) shortening that prevents full range of motion of the joint. These complications will make walking very effortful and even unsafe. Orthotic management (use of braces), simple without contractures, becomes difficult and may even require surgical release. The good news is that spasticity is treatable and contractures are preventable with proper positioning and range of motion exercises.