

FootCare Update



Expert care from professionals who care.

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Surgery may pre-empt or reduce need for leg braces.

Surgery Can Return Function To The Impaired Lower Leg

All too often, bracing is considered the best or the only option for those with Neuromuscular Imbalance affecting the lower leg. Drop foot, spastic or fixed equinas, cavo-varus deformities, and hammered toes present significant ambulatory challenges. Ankle foot orthoses and bulky functional braces keep patients confined to special shoes and/or unsightly devices. According to Dr. Kenneth M. Leavitt, patients with Cerebral Palsy, Charcot-Marie-Tooth Disease, Post-Polio deformities, or “drop foot” paralysis are conditions that can be freed from the need for bracing and orthotics.

C-M-T-D Example

Charcot-Marie-Tooth Disease, as described simultaneously by Tooth in England and Charcot and Marie in France in the late 1800's, is a dominantly inherited demyelinating hypertrophic neuropathy involving peripheral nerves. Onset will most often occur in late childhood. Progression slows in the late teen years and may stop altogether.

Bilateral peripheral distal muscular atrophy with resultant neurologic weakness begins in the feet and legs and later involves the hands and distal aspects of the arms. In the leg and foot, the anterior (front) musculature is the



Top photo shows unusually high arches, bottom photo shows reconstructed arches and joint fusions .

first to be affected. Resultant posterior muscle dominance causes a series of progressive deformities; pes cavo-varus or equinovarus deformities and contractures of the toes. Two thirds of all patients who seek treatment for symptomatic high-arch feet, ankle equinas and digital deformities will have an underlying neurological problem, and half of these will have CMTD.

Early Stage Intervention

In the early stages of the disease, before rigid joint and soft-tissue deformities set in, Dr. Leavitt can perform surgery to release soft tissue, lengthen tendons and reposition tendons to maintain a semblance of normal ambulatory function. Early surgical intervention is also helpful in reducing the long-term potential for rigid deformities, Leavitt said.

Late Stage Treatment

In late stage treatment, rigid deformities (the cavus or high arch, the “hammer toes” and the heel varus) are corrected with soft-tissue releases, osteotomies and/or joint fusions, and then combined with appropriate tendon procedures, Leavitt explained. In cases of severe anterior compartment weakness and drop foot, the transfer of the tibialis posterior to the dorsum of the foot, through the interosseus membrane is very effective.

Competing Philosophies

Surgical mismanagement of those with lower extremity neurological manifestations have very often drawn practitioners into competing philosophical camps, Leavitt said.

Those opposed to surgery have too often seen their patients suffer poor



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results usually due to poor decision-making. Leavitt is convinced that, although surgery is not a panacea, a complete understanding of the disease and functional anatomy will help him plan appropriate surgical procedures that can often free patients to walk unassisted and free them from braces and orthotics.



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