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Peripheral neuropathy is a general term indicating a disturbance in the structure and function of the peripheral motor, sensory and/or autonomic nerves. The peripheral nervous system (PNS) encompasses all nervous tissue lying outside of the brainstem and spinal cord. The concept of peripheral neuropathy as a single disease is misleading, since it is actually an umbrella term for a complex of over one hundred different disorders.

Although peripheral neuropathy has multiple causes, they can be broadly divided into two categories: acquired and hereditary. There are many acquired causes that range from toxic agents (including medications) and infectious vectors to various deficiency states and systemic diseases. Previously, the most common cause of peripheral neuropathy in the world was leprosy, although diabetes mellitus is now the leading cause in the Western world. Risk factors for peripheral neuropathy include advanced age, exposure to chemical and toxic agents, nutritional deficiencies, a history of smoking, and a history of alcohol abuse.

There is currently no "one-size-fits-all" approach to peripheral neuropathy. Several approaches have been proposed to treat neuropathy, although none has proven to be consistently effective. Treatment varies depending on the cause and pathophysiology of the specific type of neuropathy involved. In general, the most effective approach for peripheral neuropathy is to eliminate the underlying cause, if such a cause exists.

A general approach to addressing symptoms begins with a conservative protocol that emphasizes lifestyle changes, quality of life issues, and pain management. Care must be taken at the onset that symptomatic treatment does not mask a serious underlying pathology, especially in peripheral neuropathies with an acute onset. Pragmatic lifestyle changes can not only increase quality of life for people with peripheral neuropathy, but can also provide them with some measure of control over the disease.

Appropriate exercise can provide several benefits for patients with peripheral neuropathy. These include increase circulation, improved oxygenation, and loss of weight. Exercise can also be of benefit in improving the quality of sleep, a common problem in people with peripheral neuropathy. For individuals with physical limitations, aquatic exercises or a more gentle form of exercise such as tai chi may be used. Due to a decreased sensation or diminished motor control, safety is a critical consideration for patients with neuropathy. In older adults, peripheral neuropathy has been reported to increase the risk of falling by a factor of twenty. Instituting safety measures such as railings, adequate lighting, raised toilet seats, use of protective shoes, and removal of potentially dangerous obstacles such as loose rugs can prevent a potential catastrophic occurrence.

Physical medicine interventions, such as contrast hydrotherapy, castor oil packs, and jacuzzi baths can provide symptomatic relief for some individuals. Massage, biofeedback, craniosacral therapy, electrotherapy, and relaxation therapy have been utilized as non-pharmaceutical additions to pain management. A series of acupuncture treatments is a reasonable adjunctive therapy, especially for patients with polyneuropathy. A technique utilizing a small, mallet-like instrument called a plum blossom or seven star needle is often used, which can beneficially augment the core treatment.

Dietary interventions can have a critical role in peripheral neuropathy, especially in patients with diabetes, alcohol and drug issues, and individuals suffering from nutrient deficiencies. Noxious influences should be reduced, including not only obvious agents such as alcohol and tobacco but also less obvious contributors such as potential food allergens, refined sugar, foods highly sprayed with pesticides, and trans fatty acids. Patients with peripheral neuropathy need to be educated about the potential negative impact – while controversial – that various food additives, such as MSG and aspartame, can have on nervous function. All patients with peripheral neuropathy should be prescribed a professional grade, hypoallergenic

multivitamin and an intervention designed to provide a balanced intake of omega 3 and omega 6 fatty acids should be initiated. A nutrient-rich diet high in antioxidants and phytochemicals, including multiple servings of organic fruits and vegetables, can be advantageous.

For peripheral neuropathies of a chronic nature, psychological interventions become more important. The difficult transition to a more limited lifestyle requires assistance. Education, counseling, and support groups that can assist in dealing with the vulnerability, loss, and distress that accompanies the development of a new self-image associated with a chronic disease is also essential. The book *Numb Toes and Aching Soles* by John Senneff is a good resource in this regard.