

## Doctor, Why Do My Feet Burn? *by Thomas Habiger, MD*



As I began my medical training 40 years ago, a study of the nervous system was of special interest to me. Although the peripheral nervous system seemed less complex as compared to the central nervous system (which is the brain and spinal cord), it has remained unwilling to reveal the secrets of why nerve injury occurs so commonly.

The burden of neuropathy related disorders is staggering with over 20 million Americans having some type of neuropathy related to hundreds of different diseases. Statistics reveal that 10% of all adults over the age of 40 are affected by some type of peripheral nerve disorder.

While modern medicine has been able to make major advances in the diagnosis and treatment of some neuropathies, many have remained an enigma. To highlight one extreme example, up until the 1960s leprosy was one of the most common causes of neuropathy throughout the world. Through significant advances in treatment, a disease once in the tens

of millions has been reduced in 2012 to 180,000 cases. In a twist of fate, the prosperity of humanity has led to obesity and diabetes which now accounts for the majority of cases of peripheral neuropathy. In the US alone, millions of cases of neuropathy are related to this world wide epidemic.

Although diabetes is the most common cause of neuropathy, there are hundreds of diseases that are associated with injury to the peripheral nervous system and some have very specific treatments which can have significant benefit. The most dramatic in my experience has been the introduction of plasma exchange in the 1980s and later IVIG in the treatment of acute and chronic demyelinating neuropathies. In the case of Guillain-Barré syndrome, few options for treatment were available which left many individuals paralyzed for months or on ventilators with only partial recovery. Now these situations are quite rare and many individuals recover within weeks of treatment.

The Neurologist's involvement in the evaluation of peripheral neuropathy is to define the underlying cause and review

potential treatment. Evaluation includes a history and detailed examination with laboratory tests that focus on the range of different causes. Electrical studies of the nerves by electromyography (EMG) are an important part of the evaluation to help define the type of nerve injury which can help point to a diagnosis. Symptom relief and restorative therapy are the target of the treatment options. As with many diseases the importance of prevention including healthy diet, exercise and limited alcohol intake, cannot be overemphasized. The 5<sup>th</sup> century Indian Scholar Susruta wrote, "regular moderate exercise improves resistance to disease and physical decay." Truly words for the ages!

As a reminder, if you experience any numbness, pain or loss of sensation in any area of the body, tell your provider right away.

### LOCATIONS

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