

Neurovasix's MicroVas: For Successful Treatment of Neuropathy and Many Other Podiatric Conditions

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There are several pathways functioning peripherally through a spinal cord reflex. The first pathway is the deep tendon reflex. The signal is sent to the spinal cord where it has complex interactions with other nerves, including motor nerves, and returns to the muscle as a stimulating brief contraction. Another reflex is a sensory nerve-vasodilatation response. Blood flow is regulated through arteries and capillary beds by nerves which are influenced through the spinal reflex. **MicroVas** treatments cause almost immediate dilation of arteries and capillary beds, raising blood flow and oxygen levels. When one limb is treated there is a mild response in the paired untreated limb as well, including improved blood flow. This effect is from various reflexes through the spinal cord from one limb to the other. This has

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been seen most dramatically in treatment of Raynauds Phenomena, which is characterized by intense peripheral vasospasm mediated to a great degree through the nerves. MicroVas treatment results in rapid pronounced flushing of the circulation.

Another type of nerve-mediated effect on the skin is a "nerve-skin reflex". The cutaneous sensory nerves regulate the thickness of the overlying protective epidermis by secreting growth factors that accelerate the growth rate of the skin. Nerves in the body do much more than provide sensory and motor function. They control many other functions, including growth, healing and repair, by sensing needs and releasing a variety of hormones that influence these

functions. MicroVas stimulation of the cutaneous nerves stimulates this reflex and promotes the release of growth factors by the nerves. There is usually a pronounced response in the development of granulation tissue and epithelialization when using MicroVas therapy to promote wound healing. In many cases the granulation tissue that forms in the base of the wound rapidly becomes thick and elevated above the surface of the skin. It also epithelializes quickly, making MicroVas a very effective modality to aid in the healing of difficult decubitus conditions.



The enzyme to produce nitric oxide in the body is called NOS (nitric oxide synthetase). It is present primarily in smooth muscle, nerves and the linings of arteries. When the artery linings generate nitric oxide the smooth muscles in their walls relax and they dilate. Autonomic nerve fibers regulate blood pressure and flow by directly stimulating blood vessels to dilate or constrict through the alpha and beta receptors. Influencing these receptors has been the mechanism of action of many blood pressure medicines over the years. On the other hand, nitroglycerine tablets dilate the arterial circulation by being converted in the body to nitric oxide. More recently it has been discovered that nerves can trigger arteries to dilate by generating nitric oxide and releasing it at their endings. MicroVas stimulation of

the nerves and the consequent release of nitric oxide in the tissues is one of the mechanisms by which increased blood flow and oxygen levels in the tissues occur. There are many conditions where the nerves do not function properly because of various stresses. The nerves may discharge irregularly or not at all. When peripheral nerves are affected the resulting condition is peripheral neuropathy. The stresses can be metabolic in nature such as in the hyperglycemia of diabetes. MicroVas treatments depolarize the nerve membranes repeatedly, forcing them to discharge. This results in increased metabolic activity in the nerves, which can correct the metabolic derangements and restore proper function. Restless leg syndrome is another condition that is often associated with peripheral neuropathy. Whereas peripheral neuropathy is characterized by abnormal signal transmission in the peripheral nerve, restless leg syndrome is characterized by abnormal signal processing in the spinal cord, resulting in abnormal spinal reflexes. MicroVas treatments stimulate the peripheral nerves, and also promote recalibration of the reflex pathways through the spinal cord.

As an income-producing modality, with tremendous clinical results in over 1,000 DPM offices nationwide, MicroVas is used for treating neuropathy, injuries and many other conditions related to pain, swelling, edema, muscle weakness, and vascular insufficiency.

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