

# **Complementary and Alternative Treatments**

The Foundation for Peripheral Neuropathy (FPN) does not endorse any treatments, medications, articles, abstracts or products discussed herein. None of the options listed here are proven or guaranteed. Many are not backed by any scientific research or rigorous clinical trials. But if a patient can experience some amount of relief – even as a placebo effect – it is still relief!

The information contained herein is not intended to substitute for informed medical advice. You should not use this information to diagnose or treat a health problem or disease without consulting a qualified health care provider.

We share this list with you so that you may be a more informed consumer. You are strongly encouraged to consult a neurologist with any questions or comments you have regarding your condition. The best care can only be given by a qualified provider who knows you personally.

### **Technological and Medical Devices**

- Anodyne® Therapy: An infrared light therapy treatment used to reduce pain and increase circulation. This therapy may be purchased for in-home use or used at a provider's office.
- **Hepatic Activation:** The infusion of IV insulin provides the necessary signal for the liver to create needed enzymes, which reestablishes important biochemical pathways that are lacking in diabetics. This treatment may ameliorate diabetic neuropathy symptoms.
- Hyperbaric Oxygen Therapy (HBOT): Medical treatment that uses pure oxygen to speed and enhance the body's
  natural ability to heal. HBOT is an American Medical Association-, FDA- and Medicare-approved modality.
   Supervised HBOT is a great way to go if you have good insurance. Otherwise, it can get quite expensive. There
  are also versions you can buy for at-home use.
- Infrared Light Therapy (Anodyne® Therapy): Available from a variety of providers, this therapy uses infrared light to increase circulation and reduce pain.
- **INTEY Foot Massager:** An at-home foot massaging machine with deep-kneading massage rollers, heating and air compression function, which they say will help soothe sore muscles and promote muscle recovery.
- Neurogenx<sup>™</sup>: This device uses patented, high-frequency electronic waves to gently reach deep down through
  muscle and tissue to potentially relieve neuropathy symptoms and severe neuromuscular pain in the feet, legs,
  hands and arms.
- Low-Light (Low-Level) Laser Therapy: A form of alternative medicine that applies low-level (low-power) lasers or light-emitting diodes (LEDs) to the surface or orifices of the body. Whereas "high-power" lasers are used in laser medicine to cut or destroy tissue, low-power lasers are claimed to relieve pain or to stimulate and enhance cell function.
- Quell®: An in-home nerve-stimulation technology that is designed specifically to provide widespread relief from chronic pain. Quell is worn in a strap that wraps around the upper calf, sending electrical pulses through the skin

to the sensory nerves that in turn signal the brain to trigger the body's natural pain relief response, blocking pain signals throughout the body.

- ReviStim<sup>™</sup> DC Stimulator: "Wearable" direct current (DC) stimulation device. Its copyrighted software provides a unique DC electrotherapeutic energy to the afflicted area. The ReviStim<sup>™</sup> DC stimulator can deliver its energy through either hydrogel stick-on electrodes or garment electrodes in the form of socks, sleeves and gloves.
- <u>RST Sanexas</u>: Electric Cell Signaling System medical device that is used to treat circulatory issues, acute and chronic pain, as well as promote neuromuscular reeducation, muscle strengthening and relaxation of muscle spasm activity.
- <u>Scrambler (Calamare®) Therapy</u>: A non-invasive, non-narcotic medical device for rapid treatment of severe, chronic, high-intensity neuropathic pain. Read more about Scrambler Therapy for treating neuropathic pain here.
- <u>The ReBuilder</u>®: This is a self-administered, drug free, in-home treatment for neuropathy and chronic pain. It is said to arrest the progression, reduce pain and numbness, improve sleep and help you walk further with greater confidence. It consists of a double footbath with electric stimulation.
- Transcutaneous Electronic Nerve Stimulation (TENS): A method of therapy that may be used to treat nerve pain. It works by inhibiting pain signals from reaching the brain. It is a drug-free therapy that works by placing very small electrical impulses on specific nerve paths. The electrical impulses are delivered to the nerves through electrodes that are placed on the skin. Although it doesn't work for everyone or all types of pain, TENS may be prescribed in combination with other treatments, primarily to provide relief from acute forms of nerve pain.
- <u>Walkasins</u>: An external lower-leg sensory neuroprosthesis for individuals with peripheral neuropathy who have gait and balance impairments.

## **OTC Topicals**

- <u>Absorbine, Jr.®</u>: This liquid, a proprietary blend of menthol and natural herbal ingredients, has been used for many years to treat muscle strain. Rub this on the balls of your feet at bedtime to reduce neuropathic distress.
- Capsaicin cream: This type of topical uses chili pepper oils to produce heat that, when absorbed into the skin, provides pain relief for some. There are many different types of capsaicin cream formulations that are available over the counter (OTC). The most common OTC preparations include:
  - Capzasin-P a capsaicin 0.1 percent topical analgesic cream
  - Zostrix a capsaicin 0.033 percent topical analgesic cream
  - Zostrix Maximum Strength a capsaicin 0.075 percent topical analgesic cream

Many pharmacies also carry their own brand versions of capsaicin creams.

- **IcyHot**® (with Lidocaine): This over-the-counter topical ointment cools down the hot feet and/or warms up cold feet. It also helps with muscle and joint pain.
- L-arginine-based creams: Such as Neuro One® Nerve Support Cream, HealthiBetic® Foot Cream, DiabaSens®, or NeuriteRx®.
- Menthol-based creams: Such as Flex-All®, Flexgen, Tiger Balm™, or Vicks® VapoRub™.
- Neuragen PN®: A homeopathic topical pain solution for temporary relief of symptoms of nerve pain, including shooting, burning, tingling and stabbing pain. Created with a non-toxic, skin penetrating (transdermal) formula of essential botanical oils, the solution claims to provide quick, effective alleviation from severe pain on hands and feet.

• <u>Sore No More</u><sup>©</sup>: This blend of plant extracts has a topical anesthetic effect which depresses cutaneous sensory receptors, relieving muscle aches, soreness and neuropathic distress, with its cooling and soothing combination of herbs and extracts.

#### **Home Remedies**

- Castor Oil: Put on topically, castor oil has been found to aid in pain control.
- Chamomile Foot Bath: Boil two quarts of water and then remove from stove. Add 1/3 cup dry chamomile flowers (obtained from a health food store) and let steep for 2-3 hours until cool. Pour into a foot bath tub, soaking your feet for 30 minutes. You can follow this by rubbing chamomile oil onto your feet.
- Borage Oil and Evening Primrose Oil: The beneficial effects of borage oil and evening primrose oil (EPO) have been reported in a number of inflammatory-mediated conditions and these benefits are generally associated with the omega-6 polyunsaturated fatty acid gamma-linolenic acid (GLA) content of these oils.

### **Heating pad/Electric socks**

- **Ice pack:** Apply 10 minutes in the morning and in the evening. For maximum positive effectiveness, it is best to alternate between hot/cold applications as it has been shown to be particularly good at reducing, even eliminating sharp, stabbing pain across the foot. Neuropathy patients with numbness should take precautions when using hot or cold applications.
- Ivory® Soap: While some dismiss this product for PN as an urban myth, some people are finding that placing a bar of Ivory between the sheets at the foot of the bed reduces their night time PN feet distress, especially cramping.
- Jalapeños and Mineral Oil: Rubbed into the skin at a place of pain, functioning as a home-made capsaicin.
- Nettle Leaves Foot Bath: Boil two quarts of water and then remove from stove. Add 1/3 cup dry nettle leaves (obtained from a health food store) and let steep for 2-3 hours until cool. Pour into a foot bath tub, soaking your feet for 30 minutes. You can follow this by rubbing chamomile oil onto your feet.
- **Tea Tree Oil:** This soothing essential oil can help calm neuropathic distress.

### **Footwear**

### **Shoes:**

- Acorn® padded slippers
- Adidas<sup>®</sup> Sport Sandals
- Asics<sup>TM</sup>
- Crocs<sup>TM</sup>
- Havaianas<sup>™</sup> sandals
- Mephisto<sup>™</sup>
- SAS<sup>TM</sup>
- Sheepskin moccasins (Lamo<sup>TM</sup>, Minnetonka<sup>TM</sup>, UGG<sup>TM</sup>)

# Socks (and other footwear):

- Acorn<sup>TM</sup> fleece socks
- Bombas<sup>TM</sup> socks
- <u>Ducks Unlimited™</u> socks
- Fleece-lined knee highs (This is a women's fashion item. Various brands can be found on Amazon.)

- Heatmax "Toasti-Toes™" (These are adhesive foot warmers that can be applied on the outside of your sock underneath your toes.)
- Socks made with HoloFiber<sup>™</sup> or Celliant<sup>™</sup> fabric
- **VoxxLife**<sup>TM</sup> neuropathy socks
- Magnetic insoles (e.g., Therion<sup>™</sup>, Nikken<sup>™</sup>)
- TED hose for swelling
- Very superfine gauge and seamless socks
- Seamless bamboo socks
- DIY Tip: Cut off the tight elastic top of socks, and overcast the edges on a sewing machine for additional comfort

### **Alternative Therapies**

- Acupuncture: Acupuncture is an ancient Chinese treatment that is performed today throughout the United States and Europe. Acupuncture involves inserting very thin needles into the body at specific points. Many people believe that acupuncture is an effective therapy to reduce pain. For some people with peripheral neuropathy, acupuncture acts as a complementary therapy because it may reduce the need to take pain-relieving drugs. Presently, research results are mixed as to whether or not acupuncture reduces chronic pain. A list of doctors that practice acupuncture is available from The American Academy of Medical Acupuncture. Please visit FPN's website for more information about acupuncture and PN: <a href="https://www.foundationforpn.org/living-well/integrative-therapies/acupuncture/">https://www.foundationforpn.org/living-well/integrative-therapies/acupuncture/</a>
- Aromatherapy/essential oils: Aromatherapy massage is a non-pharmacological therapeutic method. The
  essential oils rosemary, geranium, lavender, eucalyptus, and chamomile have been used for therapeutic
  massage.
- Artalgia: This is a liquid homeopathic formulation developed after many years of research by Florida podiatrist, Todd Horton, that combines some 17 homeopathic ingredients that help with burning, coldness and other neuropathy symptoms. Several drops of the liquid are placed under the tongue for quick absorption into the bloodstream. Artalgia has an offensive, very strong flavor that goes away very quickly, but it can also be diluted with fruit juice. For many users, Artalgia has a cumulative effect that restores restful sleep, reduces pain/burning sensations, and reduces the need for some or all traditional neuropathy medications with side effects. This product has been most used by those suffering from burning sensations.
- Art & Music: These creative forms of expression have been used for some time in psychotherapy to help people express their thoughts and feelings. While these creative tools can help chronic pain patients maintain their emotional stability, art and music can also impact them biologically. Art and music stimulate the healing process by helping to decrease stress and release neurotransmitters that can decrease the experience of pain. Many people, when engaged in the creative arts, report that they are less aware of their pain.
- **Biofeedback:** Biofeedback therapy is a technique that trains people to improve their health by controlling certain bodily processes that normally happen involuntarily, such as heart rate, blood pressure, muscle tension, and skin temperature. Please visit FPN's website for more information about biofeedback:

  <a href="https://www.foundationforpn.org/living-well/integrative-therapies/biofeedback-therapy/">https://www.foundationforpn.org/living-well/integrative-therapies/biofeedback-therapy/</a>
- **Bowen Therapy:** Bowen therapy is a non-invasive, complementary holistic therapy. It targets certain points on the body with gentle rolling movements to help it balance, repair and reset itself. Clients are believed to experience energy recovery, a reduction in pain and an improvement of function.
- **Feldenkrais:** The Feldenkrais Method is a type of exercise therapy devised by Moshé Feldenkrais. The method is claimed to reorganize connections between the brain and body and so improve body movement and psychological state.

- **Hypnosis:** A state of deep relaxation that involves selective focusing, receptive concentration, and minimal motor functioning. Individuals can be taught to use hypnosis themselves, and this use of self-hypnosis can provide pain relief for up to several hours at a time.
- Massage Therapy: Please visit FPN's website for more information about the many different types of massage therapies available. <a href="https://www.foundationforpn.org/living-well/integrative-therapies/massage/">https://www.foundationforpn.org/living-well/integrative-therapies/massage/</a>
- Mind-Body Therapy: Meditation, hypnosis, relaxation, biofeedback, yoga, etc., are techniques that can be
  employed to reduce neuropathic pain. Please visit FPN's website for more information:
  <a href="https://www.foundationforpn.org/living-well/integrative-therapies/mind-and-body/">https://www.foundationforpn.org/living-well/integrative-therapies/mind-and-body/</a>
- **Pet Therapy**: There is good evidence to demonstrate that positive human-animal interactions improve the physical, emotional and psychological lives in people.
- **Reflexology:** Reflexology, also known as zone therapy, is an alternative medicine involving application of pressure to the feet and hands with specific thumb, finger, and hand techniques without the use of oil or lotion. It is based on a pseudoscientific system of zones and reflex areas that purportedly reflect an image of the body on the feet and hands, with the premise that such work effects a physical change to the body.
- Reiki: A healing technique based on the principle that the therapist can channel energy into the patient by
  means of touch, to activate the natural healing processes of the patient's body and restore physical and
  emotional well-being.
- Tai Chi: Researchers have determined that an ancient Chinese health practice called Tai Chi may provide benefits
  to people who suffer from PN. Please visit our website for more information:
   <a href="https://www.foundationforpn.org/living-well/integrative-therapies/tai-chi/">https://www.foundationforpn.org/living-well/integrative-therapies/tai-chi/</a>

# **Supplements for Neuropathy**

There are many commercial formulations on the market. Below we've listed some as well as single nutrients that have been shown in studies to improve neuropathy symptoms. When researching commercial formulations, you may want to compare the ingredients of the formulation to the single nutrients listed below. As always, please check with your doctor about proper dosages and any contraindications with any prescription medications you may be taking or other underlying health conditions you may have.

## **VITAMIN E**

- Powerful antioxidant that reduces levels of free radicals and oxidative stress.
- Protects against side effects: numbness, tingling, burning and pain

**B COMPLEX:** B1 (thiamine), B2 (riboflavin), B3 (niacin), B5 (pantothenic acid), B6 (pyridoxine), B7 (biotin), B9 (folic acid), B12 (cobalamins)

- B12 deficiency results in damage to protective covering of nerves
- Decrease in pain (B1/B6/B12)
- Folic acid (B9): maintenance of nerve cells
- Dosing is critical as too much B vitamins, particularly B6, can cause nerve damage.

#### **ACETYL-L-CARNITINE**

- 2 small studies limit chemotherapy induced neuropathy
- Neuroprotective properties
- More studies needed, effectiveness not established

#### **ALPHA-LIPOIC ACID**

- Benefit in diabetic neuropathy (less pain, burning and numbness)
- Further studies needed for safety/efficacy of ALA in prevention/treatment of chemotherapy induced neuropathy

#### **GLUTAMINE**

- A neutral nonessential amino acid though to have neuroprotective effects (particularly with Paclitaxel)
- More research needed to assess efficacy of glutamine

#### **GLUTATHIONE**

- Tripeptide thought to prevent neurotoxicity
- Efficacy seen in 50 advanced gastric cancer undergoing cisplatin-based chemotherapy

### MAGNESIUM/CALCIUM

- Improvements in neurotoxicity following infusion; helps with cramping
- Caution: may cause diarrhea in large doses
- Need more research to evaluate use as prevention/treatment of chemotherapy induced neuropathy.

### **N-ACETYLCYSTEINE (AMINO ACID)**

• Powerful antioxidant: Animal studies have shown inhibition of diabetic neuropathy and protection against neuropathies caused by chemotherapy drugs

#### **OMEGA-3 FATTY ACIDS**

- High quantities in cold-water fish (salmon) and widely consumed for anti-inflammatory powers
- Essential fatty acids and important component of cell membranes, myelin sheath that protects nerves
- Studies show ability to reduce demyelination of nerves and neuropathic pain

# **Surgical alternatives**

- **Neuromodulation for Refractory Neuropathic Pain:** Please see our FPN blog post regarding neurosurgical approaches for managing neuropathic pain: <a href="https://www.foundationforpn.org/2019/06/10/neuromodulationfor-refractory-neuropathic-pain/">https://www.foundationforpn.org/2019/06/10/neuromodulationfor-refractory-neuropathic-pain/</a>
- Peripheral Nerve Decompression Surgery (a.k.a., Tarsal Tunnel Surgery): This involves releasing compressed or pinched nerves in the foot that can lessen and/or or alleviate neuropathic pain caused by nerve entrapments in the foot, thus allowing the nerves to regenerate. It has been most effectively used with persons with diabetic neuropathy and some other forms of neuropathy. A thorough exam can determine possible effectiveness. Some podiatrists, plastic and orthopedic surgeons offer this treatment alternative.
- Senza® System: A spinal cord stimulator designed to alleviate back pain that is surgically-implanted under the skin, at the base of one's spine. When turned on, it sends pulses of a mild electric current to the nerve fibers in one's spinal cord, to treat pain. Possible risks from surgery include infection and a tingling sensation called paresthesia.