



WESTERN NEUROPATHY ASSOCIATION

August 2022
Issue 07
Volume 20

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Celebrating our 24th Year!

Neuropathy Hope

Hope through caring, support, research, education, and empowerment

A newsletter for members of Western Neuropathy Association (WNA)

WESTERN NEUROPATHY ASSOCIATION - ORGANIZATION UPDATES

While not unexpected, it has certainly cast a sad shadow over WNA with Bev announcing her retirement as President. To many of the members, Bev is the Western Neuropathy Association! And there are many questions about how the organization can continue going forward.

Since Bev's accident in June 2021, the Executive Board has worked together to keep the WNA continuing with its mission of educating and supporting neuropathy sufferers.

- Our newsletter, Neuropathy Hope, only missed the month of July as Katherine Stenzel, WNA Director, volunteered to assume the editor duties.
- Board members began contacting in-person support group leaders to assist with restarting meetings and/or transitioning to virtual meetings. To date, two monthly in-person and one quarterly meeting is being held. The three virtual support group meetings continue to increase attendance with an average of 25-30 people each session.
- The Annual Medical Conference was successfully held virtually in May with two days of neuropathy information and patient stories. Auburn Support Group leader Kathy Clemens sponsored matching fundraising that totaled \$3000 for the WNA's mission.
- New members continued to join WNA with 53 joining in calendar year 2021 for an end of year total of 397.
- Member fundraising efforts were continued by Karen Polastri, WNA Vice President, with a major outreach campaign in May to coincide with Neuropathy Awareness Week.
- To promote neuropathy awareness, WNA member Helaine Greenburg suggested a lapel pin and an informational business card as a way to connect with others and explain peripheral neuropathy. The pin was rolled out during the Conference and is being sent, along with the business card, to conference attendees with plans to share with all members this year.

Bev's formal retirement announcement means change in the WNA leadership.

- Longtime WNA Secretary, **Pam Hart**, will lead the organization as **President**. Read her "From The President" column on page 3 to find out more about Pam and ways you can help the organization.
- **Darrell O'Sullivan**, WNA Treasurer, will add Vice President title and duties to his current role.
- **Karen Polastri**, WNA Vice President, has resigned due to family responsibilities. We thank Karen for her many years of service to the Western Neuropathy Association.
- **Glenn Ribotsky**, WNA Director, will assume the Secretary role.
- **Katherine Stenzel**, WNA Director, will continue as Neuropathy Hope editor.
- **John Phillips** joined the WNA Executive Board in May, 2022. John will assume the new role of Membership Chairperson.

Interested in helping the WNA?

Want to know more about what it takes to be on the Board of Directors? While our organization is physically based in California, with virtual monthly meetings you can attend and make a difference from anywhere. Join us! More information on page 3.

**2022
WNA Board of
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Vice President and Treasurer

Glenn Ribotsky
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NEUROPATHY SUPPORT GROUPS – AUGUST SCHEDULE

*Sharing a fear makes it smaller,
Sharing a success makes it bigger,
Sharing a problem makes it easier to bear.*

In-Person Support Group Meetings

Support Groups are actively deciding how to reform after the break during Covid-19

August 3 (Wednesday)

Santa Rosa CA Support Group

11:30am - 12:30pm PST, Santa Rosa Recreation and Parks, 415 Steele Lane

Contact: Judy Leandro (707) 480-3740

August 23 (Saturday)

Grants Pass OR Support Group

3:30pm PST

Contact David Tally at david@tallymediagroup.com for meeting information

Auburn CA Support Group – No meetings in July, August and September

Contact: Sharlene McCord (530) 878-8392, Kathy Clemens (916) 580-9449, kaclemens@earthlink.net

Virtual Support Group Meetings (nationwide)

August 13 (2nd Saturday)

11:00am-1:00pm PST/1:00pm-3:00pm CST, Meeting ID: 893 4117 5040/Passcode: 123557

Host – Katherine Stenzel, klstenzel@hotmail.com

August 17 (3rd Wednesday)

10:00am-11:30am PST/12:00pm - 1:30pm CST, Meeting ID: 863 2548 2422/ Passcode: 609857

Host – Glenn Ribotsky, glenntaj@yahoo.com

August 27 (4th Saturday – Open Discussion)

11:00am-1:00pm PST/1:00pm - 3:00pm CST, Meeting ID: 818 9099 1051/Passcode: 227946

Host – John Phillips, johnphillips.wna@gmail.com

Virtual support group meetings are open to all, regardless of where you live. Just pick a time when you are free and join through your web browser using the ID and Passcode. Write the host or Katherine Stenzel for a direct link to simply click to access the meetings.

First time to attend a Virtual (Zoom) meeting? Here's how to join from a web browser.

Google Chrome

1. Open the Chrome browser.
2. Go to **join.zoom.us**.
3. Enter your meeting ID, then enter the password.
4. Click **Join**.
 - If this is your first time joining from Google Chrome, you will be asked to open the Zoom desktop client to join the meeting.
 - (Optional) Select the **Always open these types of links in the associated app** check box to skip this step in the future.
 - In the pop-up window, click **Open Zoom Meetings (PC)** or **Open zoom.us (Mac)**.

Safari, Microsoft Edge or Internet Explorer

1. Open browser.
2. Go to **join.zoom.us**.
3. Enter your meeting ID followed by the password.
4. Click **Join**.

Contact Katherine Stenzel at klstenzel@hotmail.com if you have a question.

FROM THE PRESIDENT Pam Hart, WNA President

Hi everyone. I would like to introduce myself as your new president of the Western Neuropathy Association. I have been on the Board for the past 10 years and have worked closely with Bev and the rest of the Board to bring great information to neuropathy sufferers and the people who care for them. I do not have neuropathy myself, but got interested when my late husband was suffering with his diabetic neuropathy. Recently I had knee surgery and during the surgery they must have 'hit' my sciatic nerve because it flared up and gave me a lot more pain than the knee surgery did. I found that Gabapentin was a life saver. Thankfully all is well now and I am off the Gabapentin. It certainly did give me a glimpse into the world of a peripheral neuropathy sufferer.

I was glad to see so many people attend our annual conference. If you registered and provided your mailing address, you should have received a WNA pin and some informational cards. We would like to provide these to everyone that is interested. If we do not have your mailing address and you would like these promotional aids, please call the WNA office at 888-556-3356 or email Lindsay at lindsayc@pnhelp.org. We know that neuropathy is such a 'silent' disease and one not often talked about. We hope that by wearing these pins it will start a conversation and passing out the cards will help with reference information.

Since we are having most Support Groups online, it is easy for people all over the United States to join in. I would encourage you to tell relatives or friends who may be suffering that they are welcome to join. And, speaking of Support Groups, we would like to reach out to any of you that would be interested in leading one. It can be at 'your' best time. All training will be provided. As more people join in, the added times and days will be a benefit.

Another way to get great information is our monthly webinars. We bring interesting products, activities, research and guidance to help with your neuropathy. These webinars are all provided at no cost, so another activity to invite your friends and neighbors to. If anyone comes across something they feel would be helpful for others, we are always looking for new ideas. Please contact me at pamula1@hotmail.com with your ideas.

Since August is upon us, I am sure to be swimming as much as I can. I find this to be a great way to exercise without the strain on my joints and feet. Often there are special senior times at public pools. There are also gyms listed in the Silver Sneaker (Medicare) program that may provide pools. I would encourage all of you to find a pool, cool off and get that blood pumping.

Cheers,

Pam Hart

WESTERN NEUROPATHY ASSOCIATION – EXECUTIVE BOARD RECRUITMENT

Interested in helping the WNA? Would you like to be on the Board of Directors? While our organization is physically based in California, with virtual monthly meetings you can attend from anywhere. East Coast, Gulf Coast, or even on vacation, you can attend to your Director's duties over the Internet.

Qualifications? Your desire to assist this organization provide support groups, informational newsletters, research and advocacy are the only qualifications.

Want to know more? Read the recruiting announcement at pnhelp.org/about us/Board of Directors/announcement. On the same page is the application. Fill this out and send to Pam Hart at pamula1@hotmail.com.

We Want You!

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AAN UPDATES TREATMENT GUIDANCE ON PAINFUL DIABETIC NEUROPATHY

Megan Brooks, Medscape, January 04, 2022

Updated guidelines from the American Academy of Neurology (AAN) advise against prescribing opioids for painful diabetic neuropathy (PDN) — but note that several other oral and topical therapies may help ease pain. The recommendations update the 2011 AAN guideline on the treatment of PDN and has been endorsed by the American Association of Neuromuscular & Electrodiagnostic Medicine. To update the guideline, an expert panel reviewed data from more than 100 randomized controlled trials published from January 2008 to April 2020.

Multiple Options

The guideline recommends offering one of four classes of oral medications found to be effective for neuropathic pain:

- **tricyclic antidepressants** such as amitriptyline, nortriptyline, or imipramine
- **serotonin-norepinephrine reuptake inhibitors (SNRIs)** such as duloxetine, venlafaxine, or desvenlafaxine
- **gabapentinoids** such as gabapentin, or pregabalin
- **sodium channel blockers** such as carbamazepine, oxcarbazepine, lamotrigine, or lacosamide.

New studies on [sodium channel blockers \(page 7\)](#) published since the last guideline have resulted in these drugs now being recommended and considered as effective at providing pain relief as the other drug classes recommended in this guideline.

When an initial medication fails to provide meaningful improvement in pain, or produces significant side effects, a trial of another medication from a different class is recommended.

Opioids are not recommended for PDN. Not only do they come with risks, there is also no strong evidence they are effective for PDN in the long term, the panel writes. Tramadol and tapentadol are also not recommended for the treatment of PDN.

For patients interested in trying topical, nontraditional, or nondrug interventions to reduce pain, the guideline

recommends a number of options including capsaicin, [glyceryl trinitrate spray \(page 5\)](#), and [Citrullus colocynthis \(page 6\)](#). [Ginkgo biloba \(see below\)](#), exercise, mindfulness, cognitive behavioral therapy, and tai chi are also suggested.

It is important to note that the recommended drugs and topical treatments in this guideline may not eliminate pain, but they have been shown to reduce pain. The good news is there are many treatment options for painful diabetic neuropathy, so a treatment plan can be tailored specifically to each person living with this condition.

Reference

Price, R. et al. (2022). Oral and Topical Treatment of Painful Diabetic Polyneuropathy: Practice Guideline Update Summary, Report of the AAN Guideline Subcommittee. *Neurology*. 98(1), 31-43. DOI:10.1212/WNL.0000000000013038

GINKGO BILOBA CLINICAL TRIAL PAPER

Clinical Trial Paper

Numan, A, et al. (October 2016). [Clinical And Electrophysiological Efficacy Of Leaf Extract Of Ginkgo Biloba L \(Ginkgoaceae\) In Subjects With Diabetic Sensorimotor Polyneuropathy](#). *Tropical Journal of Pharmaceutical Research*, 15 (10), 2137-2145. DOI: 10.4314/tjpr.v15i10.12

Results: *Ginkgo biloba* significantly improved the mean scores of sensory, affective, visual analogue score (VAS) and present pain intensity (PIP) of Short Form McGill Pain Questionnaire on 3 and 6 month post-treatment compared to placebo.

Conclusion: *Ginkgo biloba* extract EGb 761 seems to be an effective and safe drug for reducing symptoms of diabetic sensorimotor polyneuropathy without any apparent effect on the electrophysiological attributes of sensorimotor nerves.

PERIPHERAL NEUROPATHY GUIDELINES 2022

David Rakel MD, FAAFP, Primary Care, January 13, 2022. <https://www.practiceupdate.com/content/oral-and-topical-treatment-of-painful-diabetic-polyneuropathy-aan-guideline-update/129054>

(Editor – this is another summary article of the updated AAN guidelines. The chart is new and there are examples of oral and topical combination therapy.)

The guidelines summarize classes of medicine based on their effect and the confidence of the effect. Below is a summary.

CLASS OF MEDICATION	EFFECT	CONFIDENCE
Oral		
Tricyclics	Large	Low
Gabapentinoids	Moderate	Moderate
Serotonin norepinephrine reuptake inhibitors (SNRIs)	Moderate	Moderate
Sodium channel blockers	Moderate	Moderate
Ginkgo biloba	Large	Low
Topical		
Glyceryl trinitrate spray	Large	Low
Citrullus colosynthis	Large	Low
Capsaicin	Small	Low

Glyceryl trinitrate (see below) is a nitrate spray that causes vasodilation. This and **Ginkgo biloba** (page 4) both work by improving circulation through promoting nitric oxide. **Colocynth oil** (page 6) comes from a watermelon-like plant, which, when used topically, can improve pain but should be avoided orally.

The guidelines encourage realistic expectations. Patients often want complete relief, but a more pragmatic expectation is 30%. Sleep disturbance is also a common comorbidity, so consider dosing before bed and combining oral and topical treatments.

Examples to start with include titrating oral gabapentin to 900 mg or amitriptyline to 75 mg at bedtime combined with topical glyceryl trinitrate spray (nitroglycerin sublingual) spray 400 mcg to the top of both feet at bedtime (this is the same medicine used under the tongue for angina). Or you can use nitroglycerin 2% topical ointment, 1 inch to each foot at bedtime. Have patients wear gloves when applying, so they don't get a headache. You can also use colocynth oil, but this is harder to find. Capsaicin 8% patch can also be used but requires a topical anesthetic.

Although these guidelines did not discuss prevention, reducing the progression of peripheral neuropathy is also important. Maintaining good glucose control in diabetics is an obvious goal, and consider adding the strong antioxidant, alpha-lipoic acid 600 mg daily, which is supported by a meta-analysis and a good safety profile, and may also improve insulin sensitivity.

GLYCERYL TRINITRATE CLINICAL TRIAL PAPER

Clinical Trial Papers

Taheri, A. et al. (2015, December). [The Effect Of Transdermal Nitroglycerin On Pain Control In Diabetic Patients With Peripheral Neuropathy](#). *Journal of Diabetes & Metabolic Disorders*, 14(86). doi: 10.1186/s40200-015-0217-3.

Thirty patients with symmetric distal peripheral neuropathy and good glycemic control were assigned nitroglycerine transdermal (NTG) or placebo patches for 2 4-week stages.

Result: A significant reduction in all Brief Pain Inventory scores was noted except for mood and sleep.

Conclusion: The study concluded that nitroglycerin plasters can effectively help alleviate pain in patients with diabetic neuropathy.

– Continued on page 8

DISCOUNTS FOR WNA MEMBERS

The following companies or individuals have agreed to give WNA a discount to WNA members. Give them a call or visit. If you choose to purchase the service or wares of any on this list, pull out your WNA Membership Card and claim the discount.

Anodyne Therapy

Infrared Light Therapy equipment - **12% off all home units.**
Contact: 800-521-6664 or www.anodynetherapy.com

Auburn

The Footpath

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www.footpathshoes.com
WNA Discount: 10% off the regular price shoes.

Elk Grove

Shoes That Fit

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(916) 686-1050
WNA Discount: 20% off the regular price shoes.

Fortuna

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1155 Main Street
(707) 725-2610
Marilyn Strehl, C.PED
is a Certified Pedorthic
WNA Discount: 10% off the regular price shoes.

West Sacramento

Beverly's Never Just Haircuts and Lilly's Nails

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Nails - (916) 346-8342
WNA discount: 10% off the regular price.

- Continued on page 7

CITRULLUS COLOCYNTHIS CLINICAL TRIAL PAPERS

Summarized by Katherine Stenzel, WNA Editor

Rostami, N. et al. (2019, August). [Efficacy Of Topical Citrullus Colocynthis \(Bitter Apple\) Extract Oil In Chemotherapy-Induced Peripheral Neuropathy: A Pilot Double-Blind Randomized Placebo-Controlled Clinical Trial.](#) *Phytotherapy Research*, 33(10), 2685-2691. <https://doi.org/10.1002/ptr.6442>

A clinical trial to evaluate the safety and efficacy of topical *Citrullus colocynthis* (bitter apple) oil in management of CIPN in breast cancer patients was conducted in 2019. Thirty-four cancer patients with chemotherapy induced peripheral neuropathy were randomly enrolled in two arms of a randomized, double-blind, placebo-controlled clinical trial. The patients were treated by topical *C. colocynthis* oil or placebo, two times per day for 2 months. Functional Assessment of Cancer Therapy/Gynecologic Oncology Group - Neurotoxicity score was set as the primary outcome measure.

Result: No significant improvement was observed in the total score in the drug or placebo groups. There was also no significant improvement in the mean scores in the sensory, motor, hearing, and functional domains in the two study groups.

Conclusion: According to the results of this preliminary study, topical *C. colocynthis* oil failed to improve the symptoms of CIPN compared with placebo.

Heydari, M. et al. (2016, March). [Topical Citrullus Colocynthis \(Bitter Apple\) Extract Oil In Painful Diabetic Neuropathy: A Double-Blind Randomized Placebo-Controlled Clinical Trial.](#) *Journal of Diabetes*, 8(2), 246-252. <https://doi.org/10.1111/1753-0407.12287>

The aim of the study was to examine the safety and efficacy of a topical formulation of *Citrullus colocynthis* in patients with painful diabetic polyneuropathy (PDPN). Sixty patients with PDPN were randomly allocated to receive either a topical formulation of *C. colocynthis* or placebo (1:1 allocation ratio) for 3 months. Patients were evaluated before and after the intervention using the neuropathic pain scale, electrodiagnostic findings, World Health Organization Biomedical Research and Education Foundation quality of life scores, and reported adverse events.

Result: There was a significantly greater decrease in mean pain score after 3 months in the *C. colocynthis* than placebo. Mean changes in nerve conduction velocity of the tibial nerve, distal latency of the superficial peroneal nerve and sural nerve, and sensory amplitude of the sural nerve were significantly higher in the intervention than placebo group ($P < 0.001$) in favor of the intervention.

Conclusion: The results indicate that an application of a topical formulation of *C. colocynthis* fruit extract can decrease pain in patients with PDPN. It also may have some uncertain effects on nerve function, which require further investigation in studies with larger sample sizes and of longer duration.

Ostovar, M. et al. (2020, January). [Effects Of Citrullus Colocynthis L. In A Rat Model Of Diabetic Neuropathy.](#) *Journal of Integrative Medicine*, 18(1), 59-67. <https://doi.org/10.1016/j.joim.2019.12.002>

This study investigated the biochemical, histopathological and physiological effects of *Citrullus colocynthis* on peripheral neuropathy in rats with streptozotocin (STZ)-induced diabetes. Diabetes was induced in 60 rats with 10 as control. The diabetic rats with neuropathy were randomly divided into 6 groups for a 4-week treatment with gabapentin, oral administration of *C. colocynthis* fruit pulp powder (100 and 300 mg/kg per day), topical preparations as oil-based solution and ointment, or placebo. Changes in metabolic, physiological, biochemical and histological parameters were considered as treatment outcomes.

Result: Metabolic outcomes (body weight and blood glucose level) were improved in the *C. colocynthis*-treated groups as compared to placebo. Tail-flick and hot-plate tests also had lower latency in the *C. colocynthis*-treated groups. Measurement of oxidative stress markers (malondialdehyde, superoxide dismutase and catalase) showed the antioxidant effect of *C. colocynthis*. Histological evaluation of the sciatic nerve showed that *C. colocynthis* decreased the number of demyelinated and degenerated nerve fibers.

Conclusion: The study showed that *C. colocynthis* fruit, through its antioxidant and hypoglycemic activities, has a positive effect in the treatment of diabetic neuropathy. Among the *C. colocynthis*-treated groups, the one receiving 100 mg/kg power per day orally had the best treatment outcomes.

Editor - Note that the three studies were investigating distinct types of neuropathic pain. First - CIPN human patients, result of no effect from Citrullus Colocynthis. Second - painful diabetic polyneuropathy human subjects, result of significant decrease in pain with topical application for 3 months. Third - rats induced with acute diabetes and subsequent painful peripheral neuropathy; result of improved blood glucose, less oxidative stress, and less response to pain with oral application (as opposed to topical).

THE ROLE OF SODIUM CHANNELS IN PAINFUL NEUROPATHIES

Chris Illiades, MD; *Neurology Advisor*; October 29, 2014

<https://www.neurologyadvisor.com/topics/pain/the-role-of-sodium-channels-in-painful-neuropathies/>

The peripheral nervous system is a vast network of nerves carrying messages between the brain and spinal cord and every part of the body. Peripheral nerves are highly specialized and can cause a wide range of sensory, motor, and autonomic symptoms, making peripheral neuropathies hard to diagnose and hard to treat.

There are more than 100 known types of peripheral neuropathy. Common acquired causes include diabetes, injury, autoimmune disease, and nutritional deficiency. However, peripheral neuropathies can also be inherited or caused by genetic mutations. Some genetic neuropathies cause pain due to hyperexcitability of pain-sensing nociceptors. Research into these conditions teaches us a lot about the pathophysiology of neurogenic pain.

Sodium Channels and Painful Neuropathies

It has been known for a long time that voltage-gated sodium channels (VGSCs) control the flow of sodium ions that can trigger excitability of pain-sensing nociceptors in the peripheral nervous system. In humans, nine VGSCs have now been identified, and some have been linked to genes that alter their function.

“We know that sodium channels play an important role in painful neuropathy. Genetic mutations that cause extreme pain have been linked to several disorders, and we may find that genetic polymorphisms play a role in more common peripheral neuropathies as well,” said Christina Ulane, MD, PhD, assistant professor of neurology at Columbia University Medical Center in New York City.

Gene mutations have now been linked to sodium channels Nav1.7, Nav1.8, and Nav1.9.

- Gain of function mutation in the gene SCN9A has been linked to Nav1.7 and a disorder called inherited erythromelalgia (IEM). IEM is also called “Man on Fire Syndrome,” because it causes excruciating burning pain in response to mild warmth.
- The gene SCN10A has been linked to Nav1.8 and small fiber neuropathy, a condition that causes severe pain attacks in the hands or feet. It may also cause autonomic pain symptoms such as palpitations, bowel problems, and abnormal sweating.
- Genetic mutations can also cause less excitability by reducing sodium flow through a VGSC. The gene SCN11A causes hyperpolarization of Nav1.9, which may cause loss of pain sensation. Nav1.9 has also been linked to mutation that causes painful neuropathy.

Nav1.7 and Diabetes

A 2014 article published in the journal *Trends in Molecular Medicine* suggests that as we learn more about VGSCs and the genes that affect them, we could find that they play a much larger role in acquired peripheral neuropathy—and maybe even in some common diseases. The article notes that painful diabetic peripheral neuropathy (DPN) occurs in up to 25% of people with diabetes.

It has traditionally been believed that painful DPN is a direct result of hyperglycemia. Painful DPN may actually occur very early in diabetes and some people with long-standing diabetes never get DPN, the study authors noted. They proposed that painful DPN is not a complication of diabetes but rather the result of mutations at Nav1.7 that have been found in nerve cells and in pancreatic beta cells. Could these mutations increase both the risk for diabetes and painful DPN?

“It may be that the diabetic pain we associated with metabolic changes may also be linked to genetic susceptibility. The pain medications we use for diabetic neuropathy now are mostly pregabalin (Lyrica, Pfizer) and duloxetine (Cymbalta, Lilly). Neither one is a sodium channel blocker, and they are only about 50% effective,” said Ulane.

Could Sodium Channels Offer Better Treatments for Neuropathic Pain?

“We already have sodium channel blockers, but they are not very effective and are limited by side effects. If we can find more targeted sodium channel blockers, we might be able to improve treatment of neuropathic pain,” Ulane said.

The problem with the sodium channel blockers now available is that they block all sodium channels. This includes VGSCs like Nav1.3 in the central nervous system and Nav1.5 in skeletal muscle. It also means these drugs can cause lots of unwanted adverse effects. For example, those associated with the sodium channel blocker lamotrigine include dizziness, joint pain, blurred vision, and uncontrollable shaking.

This emphasizes the importance of the research on Nav1.7, Nav1.8, and most recently Nav1.9. These channels seem to be the ones that are specific to nerve pain. Pharmaceutical companies are actively working on drugs for Nav1.7 and Nav1.8 and will probably begin to include Nav1.9, now that it has also been linked to human pain. Finding drugs that selectively block just these channels could be the holy grail of neuropathic pain treatment.

DISCOUNTS FOR WNA MEMBERS

Continued from page 6

Neuropathy Support Formula/Nerve Renew

(1-888-840-7142) is a supplement that a number of people are taking and reporting it has helped them. The company gives members of WNA a discount and free shipping. The 30-day supply is \$40 (normally \$49.97). It can be auto-shipped monthly for the same. A 3-month supply via auto-ship is \$95.00. They also have a Nerve Repair Optimizer that is available for \$20 with free shipping. Marsha, the manager, said that if anyone wants more information about the product, they can call and ask for her. If she is not readily available, leave your number and she will call you back. They now have Nerve Renew Fast Acting Cream at \$20 for WNA members. It reportedly takes the edge off numbness.

Building Better Balance DVD, Developing Spine Health

– The DVDs are \$30 each. The price of a full set (4 DVDs) is \$100 (that’s a 20% discount). You can order the DVDs by going to the website www.building-better-balance.com. Shipping is free. You can also order the DVDs over the phone using a credit card. Call (707) 318-4476 and leave a message. Vanessa Kettler, Balance and Fall Prevention www.building-better-balance.com (707) 318-4476

Additional Discounts

Do you know a business that might offer our members a discount? Tell them that they will be listed each month in our newsletter and on our website so our members will know of their generosity and patronize their business. Call 888-556-3356 or email admin@WNAinfo.org.

We’ll mail an agreement form to the business, and once we have it, we’ll add them to this list.



WESTERN NEUROPATHY ASSOCIATION

A California public benefit, nonprofit,
tax exempt corporation

P.O. Box 276567, Sacramento, CA 95827-6567

Congratulations to Pam Hart – WNA's new President!

Read her message on page 3

Glyceryl Trinitrate Clinical Papers – Continued from page 5

Agrawal, R.P., et al. (2007, August). Glyceryl Trinitrate Spray In The Management Of Painful Diabetic Neuropathy: A Randomized Double-Blind Placebo Controlled Cross-Over Study. *Diabetes Research and Clinical Practice*, 77(2),161-7. doi: 10.1016/j.diabres.2006.12.003.

The objective of this study was to test the effectiveness and safety aspect of glyceryl trinitrate (GTN) in the management of painful diabetic neuropathy as a nitric oxide (NO) donor with local vasodilating properties in spray form. 48 patients with painful diabetic neuropathy (type 2) were initially placed in the drug or placebo group. Pain scores were assessed, at the beginning and after 4 weeks, followed by 2 weeks wash out period and thereafter receiving 4 weeks of cross-over regimen.

Result: Both groups A and B experienced significant improvement in pain score in their drug phase of the trial, when compared to placebo phase of the other group. The drug was well tolerated by all the patients except palpitation and headache for some days in five patients.

Conclusion: GTN spray, a well-tolerated drug, provides significant improvement in painful diabetic neuropathy. These data provide a basis for future trials for longer duration in a larger group of patients.



Western Neuropathy Association (WNA)

A California public benefit, nonprofit,
tax-exempt corporation.

Katherine Stenzel, Editor

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Our mission is to provide support, information and referral to people with neuropathy and to those who care about them, to inform and connect with the health care community, and to support research.

Dues - \$30 a year

All contributions and dues are tax-deductible.

We are supported by dues-paying members, contributions by members and friends, and occasionally, small grants and fundraisers.

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