



# THE PAIN JOURNAL

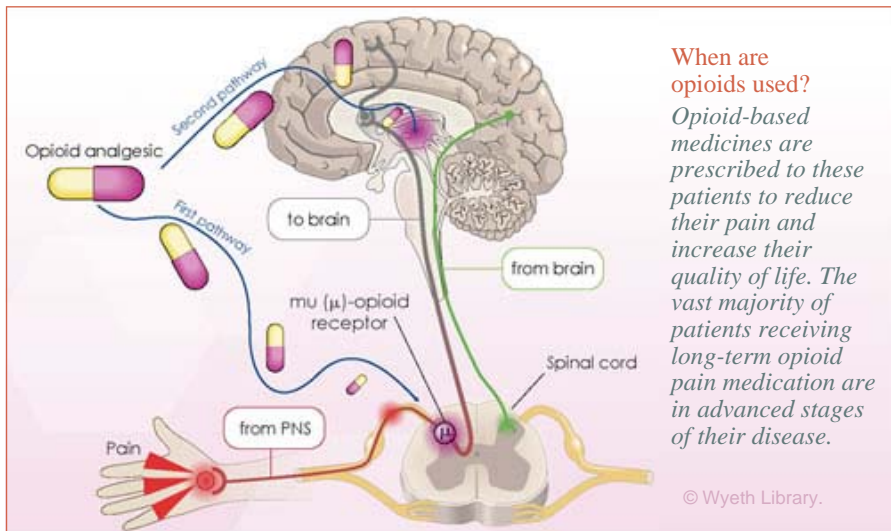
Mid Atlantic Spine and Pain Physicians  
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## Opioid Hypersensitivity Syndrome: Is chronic pain worsened by acute and ongoing opioid therapy?

*An Original Contribution by Shamolie Wyckoff, M.D.*

Opioids are well known as an effective treatment of acute and chronic pain. Clinical evidence now exists that suggests opioids can increase sensitivity to pain as well as cause pain. They can produce an unexpected effect known as hyperalgesia. It is a syndrome characterized by increasing pain pursued by escalating opioid doses, which results in a worsening of the clinical picture. In prior years, we have been led to know only of opioids' analgesic activity. There now may be a new risk in both acute and chronic opioid use. The course of this challenging clinical condition has been difficult to explain to date. Studies have shown following administration of opioids in various forms and timelines, an enhanced pain response was elicited in response to a noxious stimulus in both animal and human experimental models. ➔ *continued on page 3*



**When are opioids used?**  
*Opioid-based medicines are prescribed to these patients to reduce their pain and increase their quality of life. The vast majority of patients receiving long-term opioid pain medication are in advanced stages of their disease.*



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### MASPP OFFICE LOCATIONS:

- 100 Becks Woods Dr., Ste. 102  
Bear, DE / 302-392-6501
- 101 Chesapeake Blvd., Suite D  
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- Delmarva Surgery Center  
101 Chesapeake Blvd., Suite C  
Elkton, MD / 443-245-3470
- [www.midatlanticspine.com](http://www.midatlanticspine.com)

## Patient Success: Beating the Pain and Back to Normal

*After months of hospital stays with no pain alleviation, MASPP patient finally gets relief*

Elizabeth remembers it clearly. It was September when she was first hospitalized with severe abdominal pain. So acute that she remained in the hospital while tests were performed, but no diagnosis. No one could determine why Elizabeth was experiencing the pain or how to treat it. She has had a long history with pain, but never pain like this.

Three weeks later, Elizabeth was hospitalized again for her severe abdominal pain. It was unbearable. Even the prescribed medication that she took every two hours for her pain barely took the edge off. During this second stay, it was finally determined that her pain was related to her pancreas, but how? Soon, a diagnosis. Pancreatitis (inflammation of the pancreas). But regardless of the diagnosis... ➔ *continued on page 4*

*Current and cutting-edge information on treating spine and pain related disorders.*

**NATIONAL HEALTH EVENTS****May 2009**

American Stroke Month  
[www.americanheart.org](http://www.americanheart.org)

Asthma and Allergy  
 Awareness Month  
[www.aafa.org](http://www.aafa.org)

Better Sleep Month  
[www.bettersleep.org](http://www.bettersleep.org)

Melanoma/Skin Cancer  
 Detection & Prevention Month  
[www.aad.org](http://www.aad.org)

National Arthritis Awareness  
 Month  
[www.arthritis.org](http://www.arthritis.org)

National Cancer Research  
 Month  
[www.aacr.org](http://www.aacr.org)

National High Blood Pressure  
 Education Month  
[hin.nhlbi.nih.gov/nhbpep\\_kit/](http://hin.nhlbi.nih.gov/nhbpep_kit/)

National Osteoporosis Aware-  
 ness & Prevention Month  
[www.nof.org/awareness2/  
 annual.htm](http://www.nof.org/awareness2/annual.htm)

National Physical Fitness and  
 Sports Month  
[www.fitness.gov](http://www.fitness.gov)

**June 2009**

Myasthenia Gravis Awareness  
 Month  
[www.myasthenia.org](http://www.myasthenia.org)

National Aphasia Awareness  
 Month  
[www.aphasia.org](http://www.aphasia.org)

National Scleroderma  
 Awareness Month  
[www.scleroderma.org](http://www.scleroderma.org)

National Scoliosis Awareness  
 Month  
[www.scoliosis.org](http://www.scoliosis.org)

National Cancer Survivors Day  
 (June 7)  
[www.ncsdf.org](http://www.ncsdf.org)

National Headache Awareness  
 Week (June 7-13)  
[www.headaches.org](http://www.headaches.org)

National Men's Health Week  
 (June 15-21)  
[www.menshealthweek.org](http://www.menshealthweek.org)

**Healthy Advice Q&A**

*Patient questions answered by Frank J. E. Falco, M.D.*



**Q:** *Spinal Cord Stimulation is recommended for dad's radiculopathy. Is it safe?*  
 – Michael A., Elkton, MD

**A:** Yes. Spinal Cord Stimulation (SCS) has been used for controlling and relieving intractable back and leg pain for more than 30 years. The SCS system stimulates the dorsal column of the spinal cord by tiny electrical impulses from small electrical wires placed on the spinal cord. SCS typically consists of one or two wires with a number of electrodes and a pulse generator or battery. The wire carries the electrical stimulation from the pulse generator or battery to the posterior column of the spinal cord. The end result is pain relief.

**Q:** *I heard you do Peripheral Nerve Stimulations. How does this stop pain?*  
 – Cindy K., Lewes, DE

**A:** Peripheral Nerve Stimulation is a minimally invasive procedure that is revolutionizing the way pain physicians treat patients suffering from chronic nerve-related pain. During this interventional treatment, electrodes are inserted by the peripheral nerves, delivering low-level electrical impulses that interfere with the chronic pain perception from traveling from the nerve to the brain. The pain sensation is greatly reduced, if not diminished altogether, in most patients with certain painful conditions. A trial with a temporary device is performed before the permanent device is placed. The patient controls the stimulator and its intensity.

**Q:** *I read you are a founding member of ASCTA. Where does medicine stand with stem cells?* – Bonnie O., Milford, DE

**A:** In May, the American Stem Cell Therapy Association (ASCTA) announced the world's first clinical guidelines to allow U.S. doctors to safely begin using a patient's own stem cells to treat disease. The ASCTA is a physician-run organization dedicated to establishing best-practice lab and clinical guidelines for adult stem cell use and was formed in response to the FDA's position that a patient's own stem cells are considered drugs and should be regulated. Mid Atlantic Spine and Pain Physicians will soon begin using stem cell therapy for treating patients with pain.

**Q:** *What is kyphoplasty and how can it help me?* – John D., New Castle, DE

**A:** Kyphoplasty is a minimally invasive, medical procedure developed by orthopedist Mark A. Reiley, M.D. to stop the pain from spinal compression fractures caused by osteoporosis, a condition that weakens the bone. It is ideally performed within eight weeks of when the bone fracture occurs and is designed to stop the pain caused by the fracture, to stabilize the bone, and to restore some or all of the lost vertebral body height due to the compression fracture. As of January 31, 2008, over 393,000 patients and 460,000 fractures worldwide were treated with kyphoplasty.

*Health Tip: To help reduce stress, spend 30 minutes a day doing something you like.*

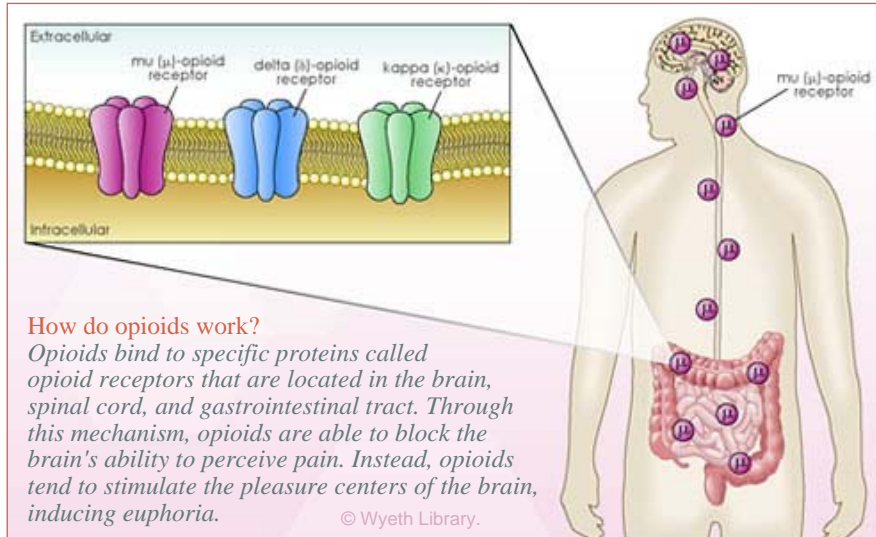
## Opioid Hypersensitivity Syndrome: Is pain worsened by opioid therapy?

*Continued from page 1 -- written by Shamolie Wyckoff, M.D.*

Hyperalgesia was seen in IV, IM, and PO forms of the most commonly used opiates (morphine, dilaudid and oxycodone). In response to very high doses or rapidly increased dosages, an increase in pain symptoms was observed. Though not completely unexpected, hyperalgesia was seen following opioid withdrawal. Opioid hyperalgesia syndrome was seen following very low doses of opioids as well as those on maintenance therapy. Timeline also varies from immediately following administration, to development hours, days and months later.

There have been multiple studies evaluating the mechanisms involved with opioid hyperalgesia syndrome. Tolerance created by increasing doses or very high doses of opioids may be one mechanism that leads to the paradoxical effect of increased pain. Changes were seen in the spinal cord and brain as opioids were observed in activating pain inhibitory and pain facilitatory systems. In triggering the excitatory signaling cascade, opiates may worsen initial pain and increase sensitivity to other sources of pain.

In raising opioid doses quickly, a risk of opioid-induced hyperalgesia should be recognized, as higher doses of opioids may stimulate rather than inhibit the central nervous system. Alternative measures should be taken into consideration to break this cycle, should it occur. There is clinical evidence that opioid induced hyperalgesia was



reduced and/or resolved in patients with opioid rotation and opioid reduction. Clinicians may also decrease opioid dose while adding an adjuvant medication. Opioid rotation, combination of opioids with different receptor selectivity and use of concomitant administration of NMDA antagonists such as ketamine, alpha agonists or NSAIDs are successful strategies which may prevent or decrease opioid-induced hyperalgesia. More data is needed to increase detection of this condition. Studies are currently focused on identifying diagnostic information for the syndrome such as clinical or biochemical specific markers. For patients with resistant and/or escalating pain, hyperalgesia should be considered. Ⓟ

## Self-Help Pain Relief: Opioids or Holistic Healing?

*Opioids still remain the "gold standard" in treating chronic pain today*

Taking opioids is a personal decision. Only you have the control over what you decide to put into your body. Before you decide, you should first understand how opioids work and what the alternatives are to treating chronic pain.

Opioids are not your Fairy Godmother to "poof" your pain away. They will not make your pain go away, and there is no magic cure. Opioids, and other therapies, can help you to function by making your pain levels more manageable. They will block your brain from receiving pain signals or change your brain's interpretation of the pain. While taking opioids is a long-term commitment, you may not need to take them for the rest of your life. Once pain levels are controlled, you may be able to function normally without them.

Natural alternatives to opioids are a lifestyle change. A holistic approach to healing includes treating the whole person using the mind, body and spirit. In holistic medicine, lifestyle changes must be made; the individual must use their own bodies and minds to heal themselves. This approach involves all aspects, such as physical, nutritional, environmental, emotional, social and spiritual. Holistic therapies may include, but are not limited to, the following: yoga or Pilates, meditation, sound/music therapy, bibliotherapy, herbal therapies, changing diet or detoxification, and acupuncture. Ⓟ

### RECOMMENDED RESOURCES

**"Finding a Joyful Life in the Heart of Pain"**  
by Darlene Cohen.  
*Read this to transform thoughts by use of the body and mind to awaken new thoughts and expand awareness.*

**"Wild Roots: A Forager's Guide to Edible and Medicinal Roots...of North America"**  
by Douglas Elliott.  
*Read this to discover the healing power of plants in your own backyard.*

**"Back Rx: A 15-Minute a Day Yoga & Pilates Based Program to End Low Back Pain"**  
by Vad Vijay.  
*Read this to gain strength, endurance, flexibility and wellness.*

**Health Tip:** Eating too many high fat foods contribute to coronary heart disease and stroke.


## MASPP News: Social Networking

*New MASPP fan group page for Facebook users*

MASPP has gone social! MASPP recently joined the ranks of the social networking evolution by developing a fan group page on Facebook (FB) as another vessel to reach people with pain, inform about the practice, and educate members who may have a interest in learning more about pain, the practice, or want to connect with other FB members with the same curiosity regarding living a life free of pain.

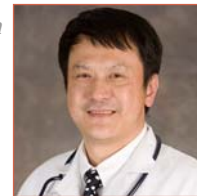
The MASPP fan group page in Facebook will provide information about the practice, upcoming events, and exciting news about the practice. Those who join the group are also able to participate in discussion groups, post comments and photos, and invite others to join.

Facebook is a global social network connecting people around the world. The website is operated and privately-owned by Facebook, Inc., founded by Mark Zuckerberg and classmates while at Harvard University. Registered users create personal pages and join fan groups, such as MASPP's page, to connect and interact with others with the same interest. A recent 2009 Compete.com study has ranked FB as the most used social network by worldwide monthly active users, followed by MySpace. Registration is free.

To join the MASPP fan group page, visit Facebook and search "Mid Atlantic Spine and Pain Physicians" or simply click on the link on the MASPP home page. 

## MASPP Staff: Meet Dr. Jie Zhu


*Crossed the Pacific to Complete His Dream*



Born and raised in Beijing, Dr. Zhu comes from a long lineage of physicians; in fact, his entire family. His grandparents were general practitioners, his father a radiologist and head surgeon, mother an internist, brother a transplant surgeon, and sister-in-law a pulmonologist. So it was no surprise when he followed into medicine; actually, it was greatly encouraged and expected.

Dr. Zhu attended medical school at Capital University of Medical Sciences. After an internship at Beijing Red Cross-Chao Yang Hospital, he began a cardiac residency at Beijing Heart, Lung and Blood Vessel Medical Center. Uncertain if he wanted to be a surgeon and unable to select his profession, Dr. Zhu decided he would be better in a place where he could choose. So he, his OB/GYN wife, and their young daughter packed up, crossed the Pacific, and settled in Pennsylvania.

Dr. Zhu returned to school, this time focusing on molecular biology. Once finished, he held research positions, but missed the clinical side of medicine. Coming full circle, he returned to surgery and found a strong desire to help patients with chronic pain, a specialty not offered in China.

Now double board certified, Dr. Zhu is content where his medical career has led him. He is grateful for his father's teachings and finds great rewards helping patients with pain. 

***Want to discuss pain? Join our fan group now available on Facebook.***

*<http://www.facebook.com...search Mid Atlantic Spine and Pain Physicians>*

### PAIN LECTURE SERIES

Fridays • 7:30-8:30 a.m.  
Union Hospital, Elkton, MD  
*Open to the public; Free*

May 8

**Cancer Pain Management –  
Rehabilitation**

May 15

**(1) Principles of Intrathecal  
Pain Management;  
(2) Hospice and Home Care**

May 22

**Organization and Management  
of a Pain Center**

May 29

**Management of  
Chronic Low Back Pain**


*Please note the Pain Lecture  
Series is on summer hiatus  
during the month of June and  
first half of July.*

## Patient Success: Beating the Pain and Back to Normal

*Continued from page 1 -- After months of hospital stays, MASPP patient gets relief*

...and medications, Elizabeth continued to experience deep pain and continued to be in and out of the hospital over the next four months – in two week stretches at a time – all in attempts to control her chronic pain. She dropped out of school and was coming to terms her life was to be different.

On the eighth day of her February hospital stay, Dr. Frank Falco came to visit Elizabeth and suggested a minimally invasive procedure that might alleviate her pain, a Peripheral Nerve Stimulation (PNS). After explaining the method, Elizabeth readily agreed. Dr. Falco was able to schedule the PNS procedure for that very same day at the hospital.

Once the temporary PNS was implanted, Elizabeth immediately felt a difference in her pain. She was relieved and impressed. Not only was her pain subsiding and her medications decreasing, but she was able to stand up and move around again. With the success of the temporary PNS, a permanent PNS was soon implanted at the Delmarva Surgery Center. In no time, Elizabeth felt her normal self again and regained more movement and a higher activity level than she ever thought she would. Next up for Elizabeth? Enrolling back in school and getting her life back on track. 



*Health Tip: Laughter can improve moods, reduce stress, help fight infection, and reduce pain.*