

# Fibromyalgia: Treating Chronic Pain

*"With 125 million Americans in pain, a deep understanding of how to reduce inflammation & pain is a skill that is in great demand."*

The cover story in the June 2016 issue of Consumer Reports is on pain. They report "125 million Americans are spending some 300 billion dollars on pills, pot and procedures." Many of you are skilled in physical or manual manipulation to reduce pain, but clearly a deeper understanding of how to reduce inflammation and pain on multiple levels is a skill that is in great demand. And a skill, I might add, that will be in more demand in the days ahead.

My thanks and congratulations to Dr. Alex Vasquez on his new book "Pain Revolution for Migraine and Fibromyalgia" for an outstanding overview of natural therapies. This text reviews diagnosis, medical treatment, but more importantly he articulates the mechanisms and application of natural therapies.

The majority of his work focuses on headaches, fibromyalgia and a term I was not familiar with called central sensitization. Central sensitization refers to an over sensi-



tive perception and experience of pain. The experience of pain is greater and the perception of pain even in small areas such as light touch can be experienced as pain.

The mechanism for central sensitization is brain inflammation. Dr. Vasquez states that brain inflammation does not always involve systemic inflammation but systemic inflammation always involves brain inflammation.

This seemingly innocent statement has massive implications because we all have

patients that have systemic inflammation and as a consequence are exposed to some level of brain inflammation. You can see a link to the right for a Tuesday Minute on brain inflammation.

What is the source of systemic inflammation, particularly as it applies to fibromyalgia? Dr. Vasquez says the best places to look are "hidden infections or a form of bacterial overgrowth often in the bowel called small intestinal bacterial overgrowth (SIBO). These low grade infections trigger "low grade systemic inflammation".

Here is the model Dr. Vasquez presents from personal experience and the literature. Diets high in refined foods, stress, history of antibiotics, the use of proton pump inhibitors, the pill, hypochlorhydria, are some of the factors that create an environment that enables bacteria that should live in the large bowel to thrive causing bacterial overgrowth in the small intestine, SIBO.

The byproducts of the bacteria and the immune response to those bacteria create intestinal permeability. Some of the bacterial byproducts such as lipopolysaccharides, hydrogen sulfide (H<sub>2</sub>S) and D-lactate create a form of toxicity called endotoxemia which impair systemic mitochondrial function. With less energy the nervous system becomes hypersensitive. Sometimes even light touch can cause pain and tenderness.

Remember we have thousands of mitochondria in every cell. When the mitochondria are not able to make as much energy as they were created to, cells don't function at their peak performance. This is why symptoms of fatigue, mental foginess sometimes called "fibro-fog", difficulty with memory and word retrieval as well as an unrealistic perception of pain are so common.

While this low grade infection activates the immune system peripherally it also activates the immune system of the brain, the microglial system. Prolonged microglial exposure then activates another part of the brain's immune system called astrocytes, which in turn creates excess glutamate.

Glutamate, an essential excitatory amino acid, is necessary for many functions. However, when over excited, glutamate impedes nerve function and weakens mitochondrial function in the brain causing further neurologic impairment. The result is an inflamed brain and extreme sensitivity to pain.

A four phase approach for fibromyalgia is utilized.

1. Fix the small intestinal bacterial overgrowth (SIBO).
2. Support mitochondrial repair and optimization.
3. Use nutrients that will slow or reduce excess glutamate.
4. Use nutrients and foods that will heal the membranes of both the gut and the blood brain barrier.

See links to the right for further information.

Anyone who has studied Dr. Vasquez's work knows his books are technical. One of his passions is to provide material that is deeply grounded in the literature. His new book is a treasure chest of information which will arm you and enable you to become an expert to deal with chronic pain particularly as it refers to headaches and fibromyalgia "type" conditions.

As a side note, I have asked him to create an online mentorship program where he could coach physicians who want help with more difficult cases and who want to develop a greater level of expertise. I have provided a link to contact him.

Finally, think about this. People are paying large sums of money to get out of pain. Unfortunately the treatments they are paying for are actually setting the stage for more pain and degeneration.

With 125 million Americans in pain, a revolution in how we see and treat chronic pain is overdue. The strategies from Dr. Vasquez focus on the body's ability to heal and recover.

Thanks for reading this week's Tuesday Minute edition. I'll see you next week.