

Why It Hurts: Pain and Inflammation

by Barry Sears, Ph.D.

PAIN IS OFTEN THE hallmark of disease. Chronic pain, itself, is not a defined medical condition, but rather a symptom in the body that something has gone awry. Pain usually stems from inflammation of the body's tissues. Although there is no blood test for pain, the patient is acutely aware of its existence.

Throughout the centuries, one of the most pressing goals for medical researchers has been to find more effective ways to diminish pain. As medicine enters the 21st century, we are still seeking a perfect pain reliever with no side effects. After all, end-stage cancer patients are still given morphine, a narcotic drug that was used during the Civil War, to dull their excruciating pain. And experts on pain are sizing up the benefits of marijuana for their patients. Somehow we haven't been able to develop a pain reliever that's truly effective and doesn't cause a drug-induced high.

Sometimes physicians can't make a definitive medical diagnosis to explain the underlying cause of chronic pain. They may shrug their shoulders or use a term like fibromyalgia, a diagnosis made to describe intense, diffuse pain of unknown origin. Regardless of whether a definitive cause of chronic pain can be found, every patient knows that the pain is very, very real.

The most powerful pain relievers, however, are corticosteroids. They have an immediate effect, but they knock out all eicosanoids*—"good anti-inflammatory" and "bad pro-inflammatory"—indiscriminately. This can lead to severe side effects, such as immune depression, cognitive impairment, and diabetes.

Aspirin, on the other hand, affects a more limited number of eicosanoids (only prostaglandins and thromboxanes) but,



at least, it knocks out the "bad" eicosanoids at a slightly faster rate than it knocks out the "good" ones. Non steroidal anti-inflammatory drugs (such as Advil) also work like aspirin. In recent years, new and very expensive medications called COX-2 inhibitors were added to the stockpile of pain relievers. These have a little more selectivity than aspirin.

Corticosteroids, aspirin, and other anti-inflammatory

drugs inhibit the actions of enzymes that make "bad" eicosanoids, whereas ultra refined high-dose fish oil reduces the actual building block (arachidonic acid) necessary to make the same "bad" eicosanoids. The medications won't reduce the building blocks of "bad" eicosanoids, so it's almost as if you're fighting an uphill battle against pain. Ultra refined high-dose fish oil, on the other hand, reduces the materials necessary to make these weapons of pain. Thus, you're able to charge downhill to conquer your enemy. This explains why ultra refined high-dose fish oil can so effectively keep inflammatory pain under control.

While medicine has a variety of blood tests to check for heart disease and diabetes, it has virtually none to test for pain. The primary way a physician normally determines the extent of one's pain is by the patient's own reporting of symptoms. Medical science has coined a lot of terms to describe the various parts of the body that hurt. Many end in -itis, a Greek root meaning inflammation. On the next page you can see a chart with some common forms of inflammatory pain.

I think you get the picture. Virtually wherever your patient's pain is, it comes from the overproduction of "bad" eicosanoids like prostaglandins or leukotrienes. Always striving for balance, your body also produces an equally impressive number of

***Eicosanoids (eye.kah.sa.noids)** were the first hormones developed by living organisms and are produced by every cell in your body. Although they might be considered to be primitive hormones, they control everything from your immune system to your brain and to your heart. There are two kinds of eicosanoids, those that promote inflammation (pro-inflammatory) and tissue destruction and those that stop inflammation (anti-inflammatory) and promote healing. You need to have both kinds in the proper balance in order to be in a state of wellness.

“good” eicosanoids that decrease pain.

The trick is to achieve the right level of the “good” and the “bad.”

As you now know, our lifestyles favor an overproduction of “bad” eicosanoids. That’s why patients need to reach the Anti Inflammation Zone: to shift the scales the other way in order to strike an appropriate balance of eicosanoids.

This process will limit the amount of insulin in the blood while providing sufficient levels of ultra refined high-dose fish oil.

Controlling this super hormone known as eicosanoids has 90 percent of the impact on the pain patients feel—compared with a 10 percent impact by insulin (and, thereby, diet). This means that patients need to focus most of their efforts on consuming ultra refined high-dose fish oil, if their aim is to decrease chronic pain.

Besides fibromyalgia, a wide number of painful conditions caused by chronic inflammation can be alleviated once one is in the Anti Inflammation Zone.

Pain is an unfortunate hallmark of nearly every chronic disease. But the fact is that we can control pain much more than we think.

Inflammatory Pain

Name	Body Part That Hurts
Arthritis	Joints
Encephalitis	Brain
Pancreatitis	Pancreas
Hepatitis	Liver
Meningitis	Brain
Bronchitis	Lungs
Colitis	Colon
Gastritis	Stomach
Tendonitis	Muscle Tendon

All we have to do is get our “bad” eicosanoids under control.

We can do this by using powerful drugs like corticosteroids, which have some serious side effects, or by choosing my dietary recommendations as the “drug” of choice. I know what I would choose: the option that hurts least.

I’m confident that ultra refined high-dose fish oil, especially when coupled with improved insulin control, will have a significant role to play in the treatment of chronic pain, including arthritis.

Dr. Barry Sears is a leading authority on the dietary control of hormonal response, and the author of the #1 best seller on the New York Times book list, The Zone. A former research scientist at the Boston University School of Medicine and the Massachusetts Institute of Technology, Dr. Sears has dedicated his research efforts over the past thirty years to the study of lipids.

*To learn more about The Zone Anti-Inflammatory Lifestyle Management program or ultra refined fish oils, call 1-800-404-8171 or visit www.drsearszonefast.com. To find out more about the AA/EPA blood test visit that measures Silent Inflammation, visit www.omega3testing.com/physician.html. **EAC***