

# INFLAMMATION:

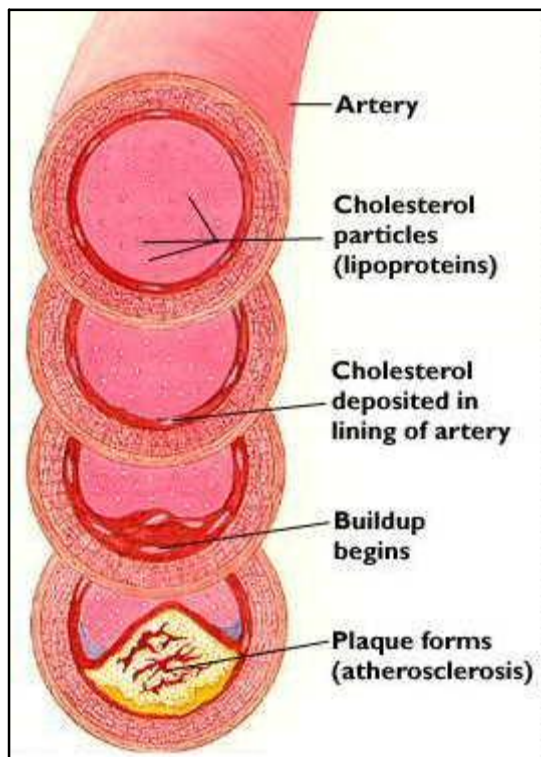
A primary cause of PAIN and DISEASE

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Hepatitis, Gingivitis, gastritis, neuritis, arthritis, dermatitis, sinusitis, and the list goes on. What are these –itises? The letters “itis” in medical-speak indicates inflammation. All it takes to qualify is redness, swelling, heat, pain and decreased function. The letters at the start of these words tell us where it’s happening. (The “–itises” above are liver, gums, stomach, nerve, joint, skin, sinuses)

The upside is that we know what inflammation is. The major downside is current research shows inflammation is a primary factor in most *pain* and *disease* conditions.



Heart disease, for example, is not caused by high [cholesterol](#), but by chronic inflammation of the arteries. This results in scarred arteries and veins reducing their smooth surface. Over time, cholesterol sticks to arterial lining forming dangerous plaques. Plaque begins to choke off the flow of blood in the arteries, resulting in hypertension, higher blood pressure and in extreme cases tissue death of the target tissues due to lack of oxygen and nutrient supply.

Of course, high cholesterol is a contributing factor but is not the primary cause. Think of this example:

*A metropolitan area, known for its good drivers, has experienced a population explosion. With the recent growth there is an increase in the number of cars on the road as well. In the last year the road conditions have become exceptionally poor (pot holes, icy patches, failing traffic lights, etc). Recently the number of accidents has skyrocketed. Which is the bigger contributor...the number of cars or bad road conditions?*

Current research is showing we need to focus less on cholesterol and more on reduction of systemic inflammation. As we continue chasing high cholesterol with medications to lower cholesterol<sup>i</sup> or thin the blood<sup>ii</sup> we create other complicating factors.

Let me broaden our view beyond cardiovascular disease for a moment:

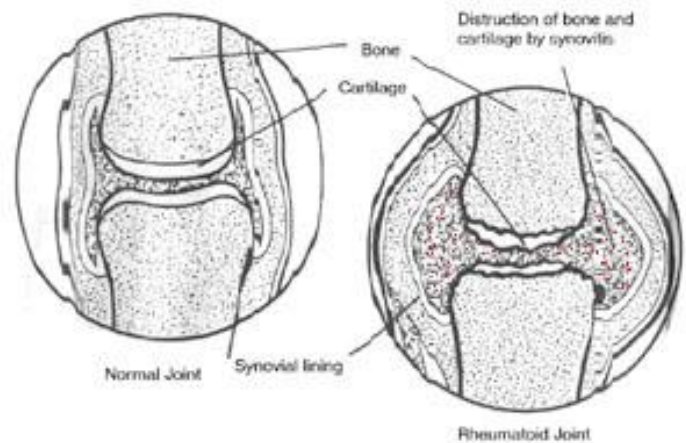
## Inflammation and pain

As previously stated, inflammation is the cause of many diseases and certainly a fundamental part of pain.

Inflammation can cause pain in the body's hinges and muscles for three reasons:

- 1) Inflammatory chemicals irritate nerves
- 2) Body hinges or joints that are inflamed stretch their surrounding tissue, sending pain signals to the brain.
- 3) Inflamed joints or discs in the spine,

are called subluxations, and put pressure on adjacent nerve tissue. Subluxations cause pain and negatively affect the organ and tissue function of those controlled by the nerve being affected.<sup>1</sup>



Inflammation of arteries, the heart, and many other tissues don't cause pain until it is too late. For this reason, pain, or even a LACK of pain, should not be used as a measurement of our health. (Remember, a heart attack doesn't hurt or kill you until you are having one, but it takes years of inflamed arteries to get to that point.)

## Reasons for Inflammation

The most common cause of inflammation is stress. This can come in many forms; gross trauma (like a car accident or fall), repetitive micro-trauma (poor form running, typing), nutritional intake (or lack thereof), stress, or an over-stimulated sympathetic nervous system (caffeine), emotional stressors (from finance troubles, family problems, etc) and environmental factors (toxins, chemicals, irritants, excess sun).

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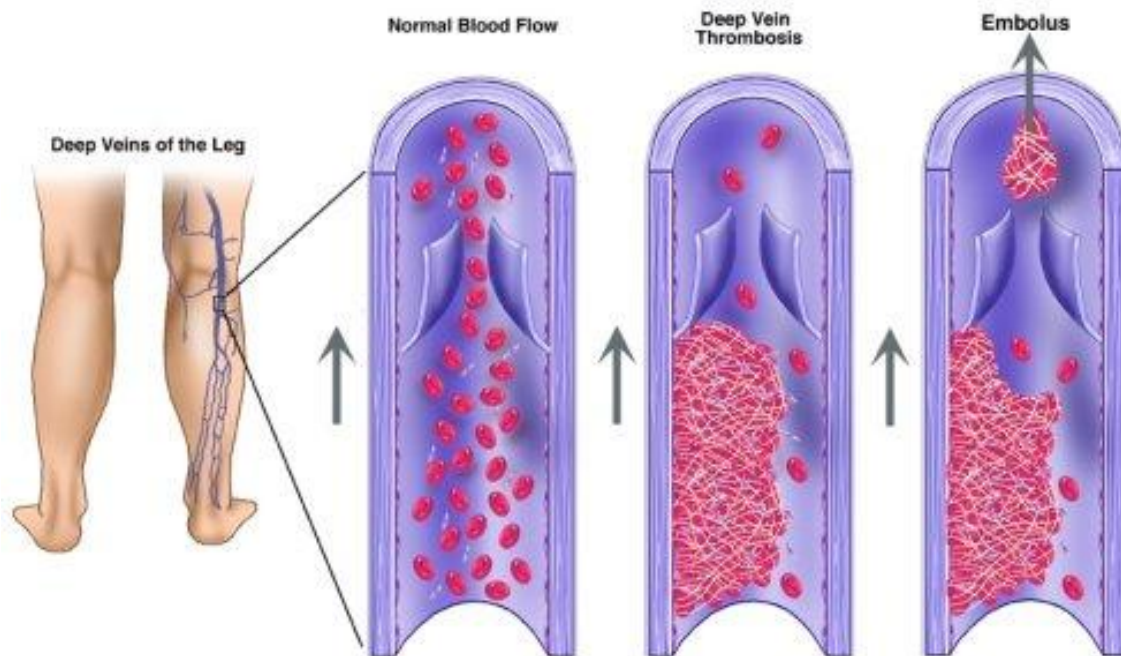
<sup>1</sup> Subluxations can exist below the pain threshold. This sustains a negative affect on organ and gland function. For this reason, subluxations should be treated to reduce joint inflammation regardless of pain.

## Treating Inflammation

**Medical treatments** consist mostly of steroids or NSAIDs (non-steroidal anti-inflammatory). Unfortunately, the desired effect is often not fully obtained, or negative ‘side-effects’ linger.

Steroids are another choice of treatment, but lead to weight gain and require a prescription. For this reason NSAIDs are the common first choice. These are used for other symptoms besides inflammation (muscle aches, headaches, fever, etc). You should recognize the following NSAIDs: They are “COX inhibitors” such as aspirin, Tylenol<sup>®</sup>, Celebrex<sup>®</sup>, and Vioxx<sup>®</sup>.

When we take “COX inhibitors” or NSAIDs to reduce inflammation, for instance in joints, or to thin the blood, there is a down side. COX inhibitors are PRO-inflammatory to our cardio-vascular system thus INCREASING our chance of heart failure!<sup>2</sup> **[Important]** You read that correctly, they may provide temporary pain relief but the side effects include: vasoconstriction (bad), reduced vascular integrity (bad), increase platelet adhesiveness and cause thrombotic events (very bad).”<sup>1</sup> **[Very important]**



**Vioxx<sup>®</sup>** was taken off the market because it **increased an individual’s chance of having a heart attack by over 5 times.**<sup>1</sup> Of course, this wasn’t noticed in the

<sup>2</sup> Selective COX-2 Inhibitors and Risk of Myocardial Infarction; *Journal of Vascular Research* Vol. 42, No. 4, pp 312-324

clinical trials. It was discovered after release and mass marketing to the general public resulting in thousands of deaths (Current total is over 25,000 deaths – *that is more than the 9/11 and the Iraq war combined*)<sup>3</sup> before **Vioxx**<sup>®</sup> was pulled from shelves.

## How can we reduce inflammation naturally?

There are many things we can do to reduced inflammation (several of which also help reduce cholesterol = **win/win** when looking at the first example of this paper).

Of course, our diet is very important. This is what I tell my patients, and I live by these same nutritional rules:

**Fresh Fruits and vegetables.** These are loaded with good stuff called antioxidants and bioflavanoids. Bioflavanoids can also be taken in supplemental form for greater potency, but I recommend eating the veggies. (And who wants a capsule over broccoli?) I tell patients that the **COLORS** in these foods are the antioxidants... foods without color such as rice and potatoes (save the skin) are worthless.

**Healthy Oils.** [Coconut oil](#), Olive oil, Grape seed oil, flax seed and of course **EPA** or **Omega 3** fish oils are fantastic! **[This is important]** Avoid all other oils like the plague. If I may be so bold, I suggest you go through your pantry and throw out the hydrogenated vegetable oils! They are, in my opinion, killing you one bite at a time. Those of you that have attended a health and wellness workshop at the office may have a better understanding of why.

Some nutrition authors emphasize that Omega 3, 6, and 9 should be taken in the correct proportions.<sup>4</sup> I say focus on Omega 3. Don't go overboard, but get more in your diet. These are best absorbed with protein foods like eggs and cottage cheese.

### Herbs.

- “**Boswellia** (*Boswellia serrata*). Also known as Indian frankincense, *Boswellia serrata* has long been recognized in Ayurvedic medicine for its anti-inflammatory benefits. Today scientists studying extracts of boswellia are reporting that it can switch off key cell signalers and pro-inflammatory mediators known as *cytokines* in the inflammatory cascade.

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<sup>3</sup> [Vioxx, Celebrex, Bextra recall news; Sunday, Nov. 24, 2004](#)

<sup>4</sup> <http://www.womentowomen.com/nutritionandweightloss/differencebetweenomega369.aspx>

- **Ginger** (*Zingiber officinalis*). Valued for centuries the world over for its medicinal qualities, ginger today is being studied by biochemists and pharmacologists interested in its analgesic, anti-inflammatory, anti-nausea and sugar-moderating effects in the body. In the past 30 years or so their work has confirmed how ginger shares properties with conventional over-the-counter and prescription NSAID's, in that it suppress the synthesis in the body of the pro-inflammatory molecules known as [prostaglandins](#) — except with few if any side effects. Recently, however, an even more exciting body of work is emerging that shows how ginger extract can actually inhibit or deactivate genes in our body that encode the molecules involved in chronic inflammation.
- **Turmeric** (*Curcuma longa*), an ancient culinary spice native to South East Asia, has been used as an anti-inflammatory agent for centuries in Indian Ayurvedic medicine. Also known as curcumin, it is a mild COX-2 inhibitor, but works differently from the prescription-strength drugs that can increase your risk of myocardial infarction or stroke. Like Boswellia and ginger, it seems to inhibit joint inflammation by preventing the production of prostaglandins and activation of inflammation-regulating genes through its effects on cell-signalling.”<sup>5</sup>

## Supplements

- **Glucosamine–chondroitin.** Glucosamine and chondroitin are two of the most important building blocks in healthy cartilage. I recommend a supplement by Univera called [Regenicare](#). I much prefer this over other Glucosamine and chondroitin supplements because it is ingested in a liquid form which increases their absorption. Also, the Regenicare actually has natural compounds that further help 1) reduce inflammation, 2) promote joint mobility and 3) carry the Glucosamine and Chondroitin to the target tissues. *(If you have shellfish allergies, be sure to check with your healthcare provider before taking these supplements.)* (To order this product please contact Dr. Shetlin)
- **Mega Antioxidant nutraceutical.** Antioxidants help reduce cell damage and inflammation. Univera [Xperia](#) is a liquid supplement with an ORAC (Oxygen Radical Absorption Capacity) of over 4500 meaning a 2 oz dose has all the antioxidants of 10 servings of fruits and vegetables. Compare that to a glass of orange juice which has an ORAC score of 211. Univera [Essentials](#) has an ORAC score of 9400 in just 2 oz. Dr. Shetlin recommends this supplement as well.
- **Green Drink supplements.** Powdered greens can be mixed with water or juice easily providing the equivalent of eating several servings of fruits and vegetables. These seem to offer a great amount of antioxidants that can be measured on the ORAC scale.

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<sup>5</sup> <http://nutrition.about.com/od/dietsformedicalldisorders/a/antiinflamfood.htm>

## Movement is important to reduce inflammation

I frequently tell my patients, “Motion is life!” Without movement, especially in the joints, the tissues do not receive their proper nutrients and begin to degenerate or “die.” By the age of 18, the joints and spinal discs have a reduced or poor blood supply. For this reason, Joints and discs, unlike muscles and organs, do not have nutrients ‘pumped’ into them. Rather, nutrients only enter the joints and discs through motion.

Stretches and exercises help healthy joints. However, if a ‘hinge’ / joint is ‘stuck’ or subluxated, it does not move properly and results in both inflammation and over time...arthritis. This is where chiropractic can help.

*Stretching, exercise, and regular chiropractic adjustments* add life and longevity to joints, especially in the spine. YOUR SPINE HOUSES THE NERVOUS SYSTEM, which controls every function in the body.



To me, it looks something like this:

**Degenerating spine = chocked nervous system = poor or reduced quality of life and decreased life expectancy.**

In other words, “we are only as young as our spine and nervous system.”

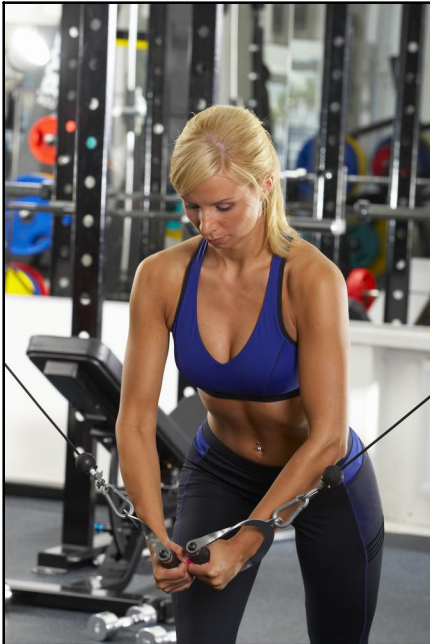
## Chiropractic Adjustments.

Chiropractic adjustments are powerful in fighting inflammation for several reasons. Here are just two of them:

- 1) Specific chiropractic adjustments mobilize joints (hinges) that are stuck or subluxated, and help restore nutrients to the joints, which stops the arthritic changes that takes place in a stuck hinge. “Motion is life.”
- 2) Chiropractic adjustments remove interference to the delicate nervous system. Inflammation in spinal joints affects adjacent nerves.

## Take a pro-active approach against inflammation.

We discussed several things you can do to reduce inflammation in the body. Obviously there are several others like **drinking plenty of pure water; massages** to help you relax and flush toxins from your body; and getting plenty of **quality rest**.



We also want to emphasize **exercise**. Muscles move bones, this gets motion in the joints (motion is life), it increases blood flowing under greater pressure to perfuse or flush through all the tissues in the body (thus, blood is moving better – motion is life). It better oxygenates the blood increasing oxygen and nutrients delivered to all the tissues. (motion is life). [Boy, that motion is really important, isn't it?]

Avoid bad habits such as becoming easily stressed. Avoid using 'social' toxins such as tobacco and alcohol. If you live in a large city you are breathing in a substantial amount of toxins on a daily basis. Take time to get out of the city for some fresh air once or twice a month.

Any questions, please contact us.

Yours in Health,

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