

Chronic Inflammation

WHAT IS INFLAMMATION?

Inflammation is an immune system response to an injury or to a substance that the immune system recognizes as foreign and which it perceives to be a threat to the body. The foreign substance could be a harmful bacterium, a virus, a toxin, a fungus, even a food to which the body is sensitive.

When you have a wound or an injury, or when there has been a bacterial, viral, fungal or other infection, inflammation of the area is an expected and a needed response. The immune system triggers very specific first response cells to prevent further damage, to allow healing, and to remove antigens from the area.

PHASES OF INFLAMMATION

There are different phases of inflammation, the principal ones being the initial inflammatory phase and then the resolution phase. The initial phase is generally characterized by symptoms most of us are familiar with – redness, puffiness, heat, and tenderness. Once the danger is over, a different portion of the immune system initiates the resolution phase to curtail inflammation and restore tissue homeostasis.

The initial phase should last only for a finite period of time. There is no hard and fast rule concerning how long the initial phase may take as it depends upon the type and severity of the injury or infection, the part of the body affected, and individual factors. After the initial phase of acute inflammation, the resolution phase should begin. When the resolution phase fails to trigger, a condition of chronic inflammation results.

TREATMENT FOR CHRONIC INFLAMMATION

Anti-inflammatories, whether pharmaceutical or herbal, are often used to ease the uncomfortable and sometimes painful effects of chronic inflammation. While anti-inflammatories can be quite helpful in relieving the symptoms, they do not allow for a triggering of the resolution phase.

To effectively eliminate chronic inflammation, you must do two things: you must remedy the cause of the inflammation and you must initiate the resolution phase.

REMOVING THE CAUSE OF INFLAMMATION

Inflammation can occur for a number of different reasons. The specific reason for the inflammation must be identified and addressed.

In the case of physical damage such as a degenerative knee joint, the knee must be repaired whether that be by prolotherapy, prolozone, or other regenerative therapy. In some cases, surgery may be necessary.

If the inflammatory agent is chemical, a detox program may be in order. If the inflammatory agent is an infection, an anti-infection program may be appropriate. If the inflammation is being caused by a food sensitivity, the offending food must be identified and removed from the patient's diet.

Very often IV vitamins, herbs, and other supplements will help to remove the antigens. The specific nutrients administered by IV will, of course, depend on the health condition being treated. IV vitamins and minerals are not compounded on a "one size fits

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all” basis. Each patient receives nutrients specifically designed for them and in the dosages they need.

TRIGGERING THE RESOLUTION PHASE

Once the root cause of the inflammation is under control, the next thing to do is to trigger the resolution phase. A very specific type of fish oil called specialized pro-resolving mediators (SPM's) have been shown to trigger resolution of inflammation. SPM's are derived from essential fatty acids that limit inflammation and also facilitate the clearing out of pathogens, dead or dying cells, and debris from the damaged or infected area.

NON-SYMPTOMATIC INFLAMMATION

There is another aspect to inflammation, one that is perhaps less commonly known, and that is non-symptomatic inflammation. Any soft tissue in the body including muscles, the soft tissue of joints, and internal organs can become inflamed. Non-symptomatic inflammation is sometimes referred to as “silent” inflammation because it does not manifest in a way that many people associate with inflammation.

Perhaps it could be more accurately called “invisible” inflammation because someone suffering with an inflamed internal organ can't see that it's inflamed. The person may display such things as tiredness, headaches, general aches, or a general feeling of being unwell and may not suspect that inflammation is at the root of these symptoms.

A great deal of research indicates that unsuspected and untreated non-symptomatic chronic inflammation may play a key role in such health conditions such as heart disease, stroke, diabetes, arthritis, bowel diseases, and cancer. Research

focused on prevention of heart disease reveals that chronic inflammation can irritate the blood vessels and may promote the growth of arterial plaque, loosen plaque in the arteries and trigger blood clots. If a blood clot blocks an artery to the heart, a heart attack results. If a blood clot blocks an artery to the brain, a stroke results.

TESTING FOR INFLAMMATION

There are different blood tests that can be done to detect chronic inflammation. Which test is used is determined based on the patient's needs. One of the most commonly used is a blood test that measures the amount of C-reactive protein (CRP) in the blood. CRP concentrations increase in response to inflammation, so an elevated level of CRP is a very accurate indication of not only the presence of inflammation in the body but also the severity of the inflammation.

Untreated chronic inflammation can cause some serious diseases. Fortunately, non-symptomatic chronic inflammation is detectable and treatable.

Call us now at (780) 485-9468 to book a consultation, or [book online](#).