Brighten Your Being



Inflammation

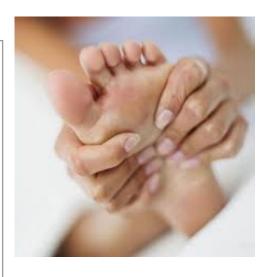
What is Inflammation?

Inflammation is one of the body's main defense mechanisms. Whenever bacteria, pathogens, or viruses invade the body, inflammation acts as a defensive attack that destroys both the potentially deadly microbes as well as any infected tissue. This process then shuts down to allow for healing to occur.

Whenever an invader enters the body, special cells called sentinel cells alert the immune system. Some of these sentinel cells, known as mast cells, release a chemical called histamine, which causes nearby micro vessels to dilate, allowing plasma to pour out. This plasma slows down the invading microbes and prepares the way for another group of sentinel cells, macrophages, to begin an immediate attack. Wave after wave of immune cells follows, destroying both the microbes and any infected tissue. This general response to almost any attack on the body is known as innate immunity.

Normally, this process ends as quickly as it begins, but sometimes inflammation doesn't shut down on cue. The reason may be genetic, due to high blood pressure, or even be caused by outside factors, such as smoking, or a diet high in sugars and saturated fats. In any case, the outcome is chronic inflammation rather than transitory inflammation. Chronic inflammation is harmful to the body, and may be a major underlying factor in many diseases. Chronic inflammation destabilizes cholesterol deposits in coronary arteries, which can lead to heart attacks or strokes. It causes a degradation of nerve cells in the brain of those who suffer from Alzheimer's disease. It may even accelerate the growth of abnormal cells, leading to cancer.

While chronic inflammation is categorized by tissue damage resulting in an indirect effect of inflammation, autoimmune diseases are categorized by tissue damage resulting from a direct effect of inflammation. It is the result of the body's immune system attacking itself, as opposed to the collateral damage that may result from it attacking an outside invader. In the case of an autoimmune disease, the body is unable to effectively discriminate between self vs. non-self tissue, and white blood cells produce antibodies that directly target the body. This results in inflammation that, besides the direct effect of attacking itself (your body tissues), can cause more problems, such as those listed above.



One disease that research is suggesting could be caused by chronic inflammation is Crohn's Disease. Crohn's Disease has often been mislabeled as an autoimmune disease, but the common thinking now is that it is caused by chronic inflammation coupled with a genetic predisposition for it. Since it is now thought to be caused by an abnormal inflammatory response by the immune system, it is important to be aware of things that may increase your chances of inflammation, such as smoking or a diet high in sugars and saturated fats.