



Medicine of Future?

Inflammation and abnormal blood clotting is thought to be at the heart of so many different troubling states of poor health (including cardiovascular and circulatory problems) that doctors proclaimed aspirin to the wonder drug of the twentieth century. That is because aspirin reduces inflammation and the tendency of the blood to clot.

However, because aspirin poses a very real risk of side effects (see below), scientists continue to search for the new wonder drug. Celebrex and Vioxx, the COX-2 inhibitors that came out around 1999, were once hailed as those new wonder drugs, allegedly without aspirin's side effects; but, in fact, their side effect profiles have become so disturbing, they've lost favor, and they now require big black box warnings in the *Physicians' Desk Reference*.

According to many leading researchers in both Europe and the United States, the wonder drug of the twenty-first century is not a drug at all—but rather a nutritional supplement designed to support your health. This supplement is known as therapeutic or systemic enzymes—and when you consider the evidence, you'll want to position them on your side to support normal inflammation and blood clotting,

INFLAMMATION— AT THE HEART OF MANY CHRONIC DISEASE STATES

Inflammation is at the heart of many chronic disease states—including pain conditions such as stiff joints and arthritis, lingering injuries, bad circulation, and heart disease. Whether this inflammation is due to poor diet or pathogens, therapeutic or systemic oral enzymes support and safely hasten the natural inflammatory and immune processes necessary to maintain your health. Therapeutic enzyme mixtures have been shown to help:

Break down proteins in the blood that cause inflammation by facilitating their removal via the

bloodstream and lymphatic system. During disease states and during ordinary aging, the body produces damaged proteins. These are sometimes called immune complexes. Unfortunately, in chronic disease states, the cleaning capacity of the body is reduced, and bad proteins (the circulating immune complexes) can accumulate. In cases where there is acute inflammation, such as rheumatoid arthritis, prostatitis, or sinusitis, these immune complexes have grown so much in number they have taken up permanent residence in the body's tissues and are stoking the flames of inflammation.

Remove "fibrin," the clotting material that prolongs inflammation. A special enzyme derived from the Asian soy food natto can apparently break down blood clots (at least in experimental studies) and help support healthy blood flow.

Clear up edema (excess water) in the areas of inflammation. The leading professional athletes of Europe and America routinely use proteolytic enzymes. Many professional basketball and football teams in America purchase systemic enzymes for their athletes to help curb their dependency on the more toxic painkillers (steroid or nonsteroidal anti-inflammatory medications). Athletes find they can train harder and with fewer injuries and that their bruises and aches tend to improve.

Support normal levels of C-reactive protein. The body produces C-reactive protein as a response to increasing inflammation. As levels of CRP rise in the body, we now also know that the risk for a heart attack also increases significantly. When CRP is chronically elevated, the body is chronically inflamed and that's bad news for your health, especially for your risk of heart attack. High CRP levels are also linked to other conditions, such as arthritis and bacterial infections.

ENZYMES' BENEFITS

Based on experimental and clinical studies, therapeutic or systemic enzymes reduce CRP and improve the prognosis for staying free from disease conditions.

This has led many natural health professionals to think of enzymes as nature's alternative to aspirin and many other steroid and nonsteroid medications used to quell inflammation.

Yet enzymes are notably different from anti-inflammatory pharmaceuticals. First, for their legal classification, they are considered to be dietary supplements and definitely not *drugs*. Enzymes' side effect risk profile is superior too. Aspirin, for example, causes ulcers or microbleeding in the

gastrointestinal tract in many people who use it. Over 20,000 Americans per year will die from complications resulting from aspirin or related medications. Systemic enzymes have none of these risks.

Tom Bohager, author of the recently published *Enzymes: What the Experts Know*, and CEO of Enzymedica, says that when we introduce oral proteases on an empty stomach, they have the ability to act upon the proteins that can make us sick. Taken by mouth on an empty stomach, proteases are readily absorbed into the mucosa cells of the intestine and into the blood. Once there, they have been shown to activate a chemical secreted from white blood cells called alpha II-macroglobulin (A2M). Although science does not completely understand the exact role of each immune system chemical, it is known that once activated, A2M “appears to have the same ability that white blood cells have for identifying what does not belong. Once an intruder is identified, the A2M exposes the protease to the protein-based invader and then digestion of that pathogen begins.”

Think of systemic oral enzymes as a co-worker and partner in a healthy immune system that, in turn, helps with chronic pain conditions. That is because this pathological process, involving bad proteins and immune complexes as well as related inflammation, occurs in many different types of chronic pain conditions such as rheumatoid arthritis, lupus, diabetes mellitus, sinusitis, thrombophlebitis, prostatitis, and many other related conditions. These are very common age-related diseases, and many people use enzymes as a lifetime helper.

In *Enzymes: What the Experts Know*, author Bohager notes that one of the differences between digestive enzymes and therapeutic enzymes (or what some people call systemic enzymes) is timing. “Taken at different times, in different situations, each of these enzymes can have different effects.”

Bohager advocates concomitant use of both types of enzymes, digestive and therapeutic, taken at different times with or without meals. But he strongly recommends use of digestive enzymes. If one must choose either digestive or systemic

enzymes, he recommends starting with digestive enzymes, which are taken with meals.

“The use of therapeutic (systemic) enzymes can be started along with digestive enzymes, provided digestion has been addressed. If an individual is not taking digestive enzymes, eating raw food, restricting calories or intentionally fasting, then Phase Two becomes much less effective, especially if undergoing a health crisis.”

There are several key enzyme formulas, all plant based, Bohager’s company Enzymedica manufactures that rank as highest potency and quality.

As a general inflammation fighter and supporter of healthy circulation, SerraGold™ (formerly SerraPlus™) is a proteolytic enzyme blend that contains serratiopeptidase, or serrapeptase, as it is sometimes called, plus Thera-blend proteases.

Serratiopeptidase has proven to be effective in improving circulation, speeding tissue repair, alleviating joint discomfort, supporting cardiovascular health, relieving respiratory complaints and having anti-edema qualities.

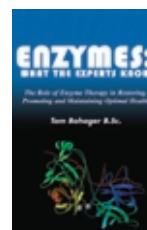
But if you want to focus on healthy circulation, then you should also consider use of Natto-K™. This product is a proprietary blend containing the enzyme Nattokinase NSK-SD, which has been shown to have a high fibrinolytic activity (breaks down fibrin) and antioxidant activity.

For athletes who wish to avoid painkillers, try Repair™, a sports enzyme product that contains the highest amount of proteolytic enzymes that have exhibited qualities that reduce discomfort, speed recovery, and increase circulation.

HERE NOW

The medicine of the future is here now—and it certainly isn’t your father’s enzymes, either. Consumers today have more choices than ever. Be sure to pick a quality digestive enzyme product to go along with your therapeutic choice and enjoy all of the healthy benefits. ■

Resources



Purchase your copy of *Enzymes: What the Experts Know* from your local health food store, natural health retailer or online booksellers (www.amazon.com). You can also view the book at the Enzymedica website at <http://www.enzymedica.com/products/>.

To find a local source use their store locator service at www.enzymedica.com or call them toll free at (888) 918-1118.

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Summary of Inflammation-related Health Benefits

- *Therapeutic enzymes have an anti-inflammatory effect*
 - They degrade cell fragments and mediators of infection.
 - They degrade protein molecules which have been transported from the bloodstream and have penetrated into the tissues to subsequently cause the development of edema.
- *Proteolytic enzymes improve the flow characteristics of the blood*
 - They inhibit the aggregation of platelets.
 - They increase the flexibility of red blood cells, improving their ability to pass through the arteries.
 - They increase the fibrinolytic activity in the blood to help prevent abnormal clotting.
- *Therapeutic oral enzymes support degradation of pathological immune complexes*
 - They stimulate the ability of the immune system to break down pathogenic immune complexes.