

Q&A on Enzymes

by Margy Squires



WHAT IS AN ENZYME?

Q Enzymes are catalysts for biochemical reactions in all living things, including man. You would not be able to function without them to help you digest your food, breathe, repair and regenerate. There are over 3,000 enzymes in the body and each one has specific duties. In fact, an enzyme is so specific; it's often likened to a lock and key mechanism. Similar to your house key, it can only unlock or lock the door to your street address – so you want to make sure you have the right key (enzyme) to unlock the right door (body function)!

IS THERE A DIFFERENCE BETWEEN SYSTEMIC & DIGESTIVE ENZYMES?

Q Systemic enzymes refer to enzymes which have the ability for activity anywhere in the body. Digestive enzymes have specific action in the stomach and small intestines only. Common digestive enzymes that break down food include amylase (for carbohydrates), protease (for proteins) and lipase (for fats). Most are named after the substrate they perform action on, with the suffix -ase added. For example, lactase (lact+ase) is an enzyme that breaks down milk (lactose). Sucrase breaks down sugar, and so on. This Q&A will focus on systemic enzymes.

ARE SUPPLEMENTAL ENZYMES SAFE?

Q Yes, with a few precautions. In fact, enzymes are required biological factors for all living matter from plants to mammals. Relatively high dosages are used in both short and long term therapies without toxicity. When compared to aspirin, NSAIDs or narcotics, enzymes are far superior with regards to safety. The only side effect is soft stools or flatulence, both of which disappear upon discontinuing or cutting back on the dose. Dietary sources include raw fruits and veggies and some grains.

WHO TAKES SYSTEMIC ENZYMES?

Q Anyone with acute inflammation and chronic pain. The fibrinolytic activity of enzymes removes byproduct debris (such as fibrins) out of the way which contribute to inflammation and pain. Without inflammation, cells and tissues heal faster. Pain associated with inflammation is also reduced. This unique activity makes enzyme therapy effective post surgery (*see Caution*), for cardiovascular disease, sports, myofascial pain syndrome, trauma related injuries or for most chronic disorders involving inflammation. Although fibromyalgia is not an inflammatory-type pain, systemic enzymes may help reduce pain if you also have an inflammatory disorder.



HOW QUICKLY DO ENZYMES WORK?

Q In general, enzymes show results on pain and healing from just a few minutes to within 1-3 days post-surgically or post trauma. For chronic conditions, it may take six weeks to 3 months or so, as in rheumatoid arthritis. Enzymes activate and accelerate the processes in the body to speed healing and shorten recovery. The more deeply involved the condition systemically, the longer results may take. However the healing will do no harm, unlike NSAID or other pharmacology long term use associated with GI bleeds.

WHAT ARE THE RECOMMENDED DOSAGES?

Q Enzymes are only retained 24-48 hours in the system. Larger doses may be needed to see a result and then dosage is typically reduced to "Supplemental" or maintenance level. Follow the directions on the label as milligram and activity level will be factors as well. See SUGGESTED DAILY DOSAGES BOX.

WHAT DOES ENZYME ACTIVITY MEAN?

Q In order to be beneficial, an enzyme must be alive or active. If you've ever made bread, you know that the yeast must contain active enzymes in order for the bread to rise. Most cooks test the enzyme activity by adding a little sugar to the yeast. If it reacts, it's active and the bread will rise. How an enzyme supplement is made is also a critical factor in preserving the enzyme activity. The enzyme activity must be protected in a pH stable and heat controlled environment during the manufacturing process.

WHAT ARE SERRAZIMES™?

Q Serrazimes™ are a patented systemic enzyme from a plant source, with high activity level. Research shows their fibrinolytic activity helps relieve inflammatory responses in arthritis, injuries or illness. Serrazimes™ is an effective vegan alternative to bovine or porcine systemic enzymes.

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WHAT'S THE BEST WAY TO STORE ENZYMES?

It probably wouldn't hurt to refrigerate enzymes after opening. Consume within 2-3 months of opening. Unopened, they can be stored in a cool cupboard away from heat like other supplements.

HOW LONG DO THE BENEFITS LAST?

About a week at most after discontinuing enzyme therapy. Since enzymes are safe, you can take them on an indefinite basis. For those with chronic conditions, that's good news.

HOW DO I TAKE SYSTEMIC ENZYMES?

Ideally, enzymes should be taken 30 minutes before a meal on an empty stomach for maximum benefit. If you do take it with food, it may reduce the potency somewhat. It is imperative that systemic enzymes reach the bloodstream fully active to be the most effective.

DO MOST ADULTS NEED ENZYMES?

Yes, most diets today lack active enzymes. Enzymes are heat sensitive. If you eat food that is cooked (fried, baked, boiled, blanched, steamed), you're eating dead enzymes. Food preservatives, refining (for example wheat flour to white), additives and colorings, irradiation and similar processing reduces or destroys enzyme activity and availability. Lack of certain nutrient co-factors impair enzymes from performing their duties. Exposure to toxins such as smoke, chemicals, excessive sun, alcohol and drugs affect enzymes in the liver, lungs, and other systems.

HOW CAN I TELL IF I'M ENZYME DEFICIENT?

Your ability to repair when injured, resist infections and avoid disease are all signs of strong enzyme activity. Stress, eating "dead" enzyme foods, aging and illness, affect enzyme levels. Some enzyme deficiency disorders are obvious, such as those who cannot tolerate milk because they are missing the enzyme lactase. For most, sub-optimal health is more likely caused by enzyme deficiencies and supplementation can reverse or correct the problems.



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FIBRO-ENZYMES™ THERAPY

Systemic enzymes have the ability to stimulate healing by quenching inflammation and reducing pain biologically without the side effects of NSAIDs or steroids.

Acute & Traumatic Injuries
Back Pain & Sciatica
Bruises, Cuts & Wounds
Bursitis & Tendinitis
Inflammatory Disorders
Muscle Sprains & Strains
Osteo & Rheumatoid Arthritis
Post Surgery
Tendon & Joint Disorders

SUGGESTED DAILY DOSAGES

For all dosages, take Vcaps® 30 minutes before or in between meals for absorption into the bloodstream and optimal healing.

Supplemental

Take 3 Vcaps® of Fibro-Enzymes™ a day.

Recovery (Post Surgery, Bone & Tissue Repair)

Take 2-3 Vcaps® of Fibro-Enzymes™ 3 times a day (upon approval of your surgeon).

Acute Inflammation or Flare-Ups

Take 3 Vcaps® 4 times a day for 1-3 days or as instructed by your health care professional. Reduce dose to *Supplemental* (See above).

***Caution: Not recommended for pregnant or nursing women or young children. Please consult your health care professional before use if you are on a blood thinning agent, have an aneurysm, ulcer or blood coagulation disorder or for pre and post surgery use.**

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