

## **Foods Rich with Enzymes** *by Tina Johnson, AHNC (c)*

### **Enzymes – What Are They?**

Enzymes are proteins that are involved in digestion and every chemical reaction in your body. According to food enzyme researcher, Dr. Edward Howell, “Without enzymes, no activity at all would take place. Neither vitamins, minerals, or hormones can do any work — without enzymes.”

The enzymes we need to consider when planning our diets are food enzymes. These are present in raw foods, and they initiate the process of digestion in the mouth and stomach. Food enzymes include proteases for digesting protein, lipases for digesting fats and amylases for digesting carbohydrates.

### **Chew, Chew, Chew your Food**

Amylases in saliva contribute to the digestion of carbohydrates while they are being chewed, and all enzymes found in food continue this process while it is mixed and churned by contractions in the stomach. The glands in the stomach secrete hydrochloric acid and pepsinogen, which initiate the process of protein digestion, as well as the intrinsic factor needed for vitamin B12 absorption; but the various enzymes needed for complete digestion of our food are not secreted until further down line, in the small intestine. However, while food is held in the stomach, the enzymes present in what we have consumed can do their work before this more or less partially digested mass passes on to the enzyme-rich environment of the small intestine.

### **Enzymes and Raw or Uncooked Foods**

Enzyme research has revealed the importance of raw foods in the diet. The enzymes in raw food help start the process of digestion and reduce the body's need to produce digestive enzymes. All enzymes are deactivated at a wet-heat temperature of 118 degrees Fahrenheit and a dry-heat temperature of about 150 degrees. It is one of those happy designs of nature that foods and liquids at 117 degrees can be touched without pain, but liquids over 118 degrees will burn. Thus, we have a built-in mechanism for determining whether or not the food we are eating still contains its enzyme content.

### **What Happens when We Eat Cooked Foods**

A diet composed exclusively of cooked food puts a severe strain on the pancreas, drawing down its reserves, so to speak. If the pancreas is constantly over stimulated to produce enzymes that ought to be in foods, the result over time will be inhibited function. Humans eating an enzyme-poor diet, comprised primarily of cooked food, use up a tremendous amount of their enzyme potential in the outpouring of secretions from the pancreas and other digestive organs. The result, according to the late Dr. Edward Howell is a shortened life span, illness and lowered resistance to stress of all types. He points out that humans and animals on a diet comprised largely of cooked food have enlarged pancreas organs while other glands and organs, notably the brain, actually shrink in size.

### **Enzyme Rich Foods Provide Limitless Energy**

Dr. Howell formulated the following Enzyme Nutrition Axiom: The length of life is inversely proportional to the rate of exhaustion of the enzyme potential of an organism. The increased use of food enzymes promotes a decreased rate of exhaustion of the enzyme potential. Another rule can be

expressed as follows: Whole foods give good health; enzyme-rich foods provide limitless energy. As we age our enzyme potential decreases.

### **Other Traditional Cultures**

Almost all traditional societies incorporate raw, enzyme-rich foods into their cuisines- not only vegetable foods but also raw animal proteins and fats in the form of raw dairy foods, raw fish, raw muscle and organ meats. These diets also traditionally include a certain amount of cultured or fermented foods, which have an enzyme content that is actually enhanced by the fermenting and culturing process. The Eskimo diet, for example, is composed in large portion of raw fish that has been allowed to "autolate" or "predigest," that is, become putrefied or semirancid; to this predigested food they ascribe their stamina. The culturing of dairy products, found almost universally among preindustrialized peoples, enhances the enzyme content of milk, cream, butter and cheese. Ethnic groups that consume large amounts of cooked meat usually include fermented vegetables or condiments, such as sauerkraut and pickled carrots, cucumbers and beets with their meals. Cultured soybean products from Asia, such as natto and miso, are another good source of food enzymes if these foods are eaten unheated. Even after being subjected to heat, fermented foods are more easily assimilated because enzymes have predigested them.

### **Foods with Enzyme Inhibitors**

Grains, nuts, legumes and seeds are rich in enzymes, as well as other nutrients, but they also contain enzyme inhibitors. Unless deactivated, these enzyme inhibitors can put an even greater strain on the digestive system than cooked foods. Raw seeds or raw nuts contain enzyme inhibitors, which will neutralize some of the enzymes your body produces. In fact, eating foods with enzyme inhibitors causes a swelling of the pancreas. All nuts and seeds contain these inhibitors. Raw peanuts, for example, contain an especially large amount. Raw wheat germ is also one of the worst offenders. In addition, all peas, beans and lentils contain some. Potatoes also have enzyme inhibitors (concentrated in the eyes of the potato). In eggs the inhibitor is contained mainly in the egg white. There are two ways to destroy enzyme inhibitors. The first is cooking; however, this also destroys the enzymes. The second way, which is preferable, is sprouting, soaking in warm acidic water, sour leavening, culturing and fermenting (all processes used in traditional societies) deactivate enzyme inhibitors, thus making nutrients in grains, nuts and seeds more readily available and also increases the enzyme content from a factor of 3 to 6. Taking extra enzymes is the third way to neutralize the enzyme inhibitors in ungerminated or unsprouted seeds and nuts. We recommend [Enzalase](#).

### **Foods Naturally High in Enzymes**

Most fruits and vegetables contain few enzymes; exceptional plant foods noted for high enzyme content include extra virgin olive oil, raw honey, grapes, figs and many tropical fruits including avocados, dates, bananas, papaya, pineapple, kiwi and mangos. It is simple to change the structure of certain foods to increase their enzyme value.

### **Creating Foods at Home Rich in Enzymes**

#### ***Sprouting***

Did you know broccoli sprouts contain nearly 50 times more antioxidants than mature broccoli plants? Always use organic seeds, grains or legumes for sprouting. It is much easier to sprout grains and

legumes than seeds and nuts since the fat content is lower. It takes much longer for nuts and seeds to sprout so most people soak them prior to eating them.

For sprouting all you need to launch the process is filtered or purified water, a little space on your kitchen counter, seeds and a jar. Sprouts are edible any time from the soaked stage through seven days of sprouting or 10 days into a shoot, anywhere you like them. To get started, choose a container that drains well, for example a canning jar with a stainless steel screen and canning lid or you can also buy commercial sprouters and trays. Then it's just a process of soaking and rinsing and draining. The best website I have found for organic seeds, grains, legumes, nuts, sprouting supplies and instructions is [Sprout People](#).

### ***Soaking***

When eating nuts, seeds, grains and legumes it is important to eat only raw and organic since the fats contained in them absorb all the fat-soluble toxins from the fungicides, pesticides, herbicides and insecticides. These toxic chemicals not only cause cancer they cause DNA damage. Eliminate all roasted nuts and seeds since the high heat processing causes the fats to become rancid creating free radicals. Consuming rancid fats has many negative effects on the body, one of them is Hypothyroidism. If you are experiencing hypothyroidism you will gain weight, become sluggish, have brittle hair, dry skin, become constipated and all of your cells lose energy.

Store all of your nuts and seeds in the refrigerator. By soaking nuts and seeds in purified water for 24 hours in the refrigerator, it will cause a break down of the natural enzyme inhibitors making it easier to digest them. You can soak them longer than 24 hours (up to a week) by changing the water daily. Once removed from the water you will want to eat them within 24 hours. Store them in the refrigerator until you are ready to consume them. The soaking process turns them into a "living" food providing you with more nutrition than if you were to eat them without soaking. The raw food recipes on our website usually call for soaked nuts and seeds. Check out our [Raw Granola](#) recipe.

### ***Fermenting***

Traditionally, fermented foods contain living microorganisms that replenish the friendly bacteria in your digestive tract. Fermentation is a preservation technique to create lactic acid in sour foods such as kim chi, sauerkraut, yoghurt, keifer and more. Fermentation neutralizes unhealthy chemicals found in grains and beans. Grains and beans all contain phytic acid. Phytic acid blocks the absorption of calcium, phosphorus, iron and zinc. A diet high in unfermented whole grains can lead to mineral deficiencies and bone loss. Fermenting grains and beans before eating them neutralizes phytic acid. It also neutralizes enzyme inhibitors and breaks down gluten, sugars, and other difficult to digest elements in grains and beans. Read more about fermented foods at: [Eating More Fermented or Cultured Foods](#)

[Rejuvelac](#) is an excellent tonic for the entire system. It is made from sprouted wheat berries and it particularly benefits the intestines and the colon. It is rich in natural enzymes and goes a long way in replacing the flora of the intestines, which have been lost due to the consumption of antibiotics, eating cooked and processed foods or from aging. Drink a small amount of [Rejuvelac](#) just before a meal and a small amount after your meal. It is inexpensive and easy and fun to make!

#### ***Sources:***

*Nourishing Traditions: The Cookbook that Challenges Politically Correct Nutrition and the Diet Dictocrats, by Sally Fallon with Mary G. Enig, PhD*