

Précis of “Enzyme Nutrition” – Dr. Edward Howell

“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*.”

The Enzyme Nutrition Axiom. – Dr. Edward Howell.

There are three classes of enzymes:

1. Metabolic enzymes run our bodies
2. Digestive enzymes digest our food.
3. Food enzymes from raw food which start the digestion process.

According to the Food Enzyme Concept, enzymes possess biological as well as chemical properties. Enzymes taken in our food, and still of functional value, deliver a considerable part of the digestive process themselves and reduce the call on the finite supply of enzymes which our bodies possess.

When killer whales catch seals they store them in their ‘food enzyme stomach’. This delivers no enzymes itself but awaits the utilisation of the enzymes in the stomachs of the seals to digest them sufficiently to pass on to the next stomach in the whale. [One whale was caught with 32 seals in its stomach and all had to be pre-digested with no enzymes of the whale itself!] Thus they do not use their own limited store but utilise those already there in the food they eat.

Many diseases have two key causes.

First - the chief culprit - enzyme deficiency, or under-nutrition. This means that the body is not provided with the complete pack of ‘tools’ it needs to create a completely healthy condition.

Second is from among the mischief-makers such as cholesterol, anaerobic bacteria, viruses, excessive cholesterol, x-rays, food additives, smoke etc.

So, if food has begun with the full enzyme package, where does it go and why do we not have what we need? The major cause is the oven, hob, microwave cooker or other mechanical process that denudes the natural supply through over-cooking/maltreating food through which processes we destroy the enzymes. Anything over 118F is sufficient to render them depleted, damaged or useless, and cause the body to have to draw on the dwindling supply of its reserves.

For many people the apparent appearance of good health is simply the absence of or delayed appearance of the symptoms of ill-health!

Have we ever heard of hospitals in the wild world? It is only humans and some of the animals we keep in captivity that are denied a diet with adequate and correctly balanced enzymes.

The enzymes in the saliva of young adults are found to be 30 times stronger in young Chicago adults than in persons over 69 years of age. The starch digesting enzyme amylase was found to be 25 units in young people and 14 in old people. This is because the fixed supply of enzymes we began life with are dwindling by later life.

Therefore if we take in good nutritional supplies of enzymes as we eat, we will find our bodies more youthful and better able to defend themselves, together with extending enjoyable life-span as we age in numerical terms.

Mother's breast milk comes loaded with enzymes. Those who eschew this blessed supply, provided for free to be passed on to their child, will probably shorten their lifespan - considerably. A study of the morbidity of babies was conducted in 1934, with a sample of 20,621. Those bottle fed had twice the death rate of those breast fed, while those fed partially with each came in between. The enzyme intake in those not wholly breast-fed was considerably lower. Part of the explanation for this, and critically it applies beyond just breast feeding, is that the enzymes in non-natural milk have been destroyed through the practice of pasteurisation. Ironically health departments have often use phosphatase – an important enzyme – as a measure of the success of pasteurisation!

An excellent example of harmony in enzyme activity is with bread and honey. If eating this combination, leave the honey on the bread for quarter of an hour and reduce the workload for the salivary amylase!

Of equal note is that the feeding of sugar to supplement bees diets is a poor substitute, leaving the bees to construct honey from food of an inferior enzymatic load. This may not be actually visible to our eyes or immediately obvious to our bodies, and this is some of our problem – we assume too much will 'just happen'.

A diet of unprocessed and non-heat treated dairy products, combined with vegetables, gave Russians in their locality a much healthier and longer life than their counterparts in the nearby towns. Many on the supposedly dangerous dairy diet were living well past 90, but their diet was well enhanced by good enzymatic load, compared to the town-dwellers whose diet was overloaded with carbohydrates and 'treated' food.

Over 90% of the enzymes in milk are destroyed by pasteurisation, while in a raw state it delivers over 35 different 'work-horses'. The main enzyme is lipase, and this is very capable of dealing with cholesterol. Prior to the advent of pasteurising dairy products, doctors rarely found evidence of atherosclerosis, commonly referred to as 'hardening of the arteries'.

If 'fat' in the diet is so bad, why do the Eskimos who eat prodigious amounts of largely RAW fat and meat, so infrequently exhibit signs of atherosclerosis? Part of the answer may lie in that the meat is eaten raw, and the other part is that they store it for a considerable time allowing the natural enzymes to begin a 'pre-digestion' process. It is for this reason that many animals choose to bury and store their food for later consumption.

The Eskimo will also eat the contents of the stomach of the caribou, again recognising its nutritional benefit – a mass of enzymes, beside other nutrients. They also know that if a dog team is fed freshly caught fish, they will lose weight and not perform properly. However, if the fish is stored and becomes 'high', and then fed to the dogs, they will often work perfectly AND put on some weight!

Research from the 1920's through to 1969 showed that in rats fed the 'factory style diet', as opposed to a 'normal' rat diet, one could raise body weight – but decrease brain weight! In lab mice their brain weight can be altered in less than 5 weeks through altered diet. Obesity is also increased on the 'factory' diet, adding a further reason to address diets of all people, especially children. Whilst this cannot be *proven* to extrapolate to humans, or has not so far, it is hard to believe there would not be valid correlation.

Further evidence of the harm of the poor diet, devoid of enzymatic load, is the impact on the pancreas. In laboratory mice the pancreas would grow by as much as 2.5 times as it tried to keep pace with demand from an un-natural diet. The consequent inability to supply adequate nutrients meant that the other organs in the body were also put under increased load, as the body tries desperately to supply the enzyme pre-cursors that it needs. This is the reason why the lifespan is reduced as the lab rat is forced to use its enzyme store three times faster than its wild cousins. Dr. Howell claims this to be the main reason why wild animals suffer so few of the diseases of their counterparts in captivity, and, of course, their human 'superiors'.

Many of the impacts of poor nutrition are not seen in lab animals fed the 'factory style diet' as they are killed well before their natural lifespan is reached. However, in those allowed to live to their natural end, upon dissection they exhibit far more degenerative conditions typical of humans than we would be happy to know about.

When did you last see a wild animal sit down to a cooked meal?

A further denigration of the natural supply of enzymes is sugar. Modern man is taking on outrageous amounts of sugar, mostly refined. With 'natural' and wholesome foods, the body regulates demand successfully. A diet laden with processed food will not do this, leaving the body 'calling' for more 'food' to provide the missing nutrition. However, simply giving more of the same 'food' that failed to work the first time will not solve the problem, and more likely it will worsen it. Sugar throws the endocrine gland's systems into a 'spin'. The body is not nourished, and will seek more nutrition which the (possibly shrunken) brain cannot identify. [Perhaps the £7 billion confectionary industry would be a good place to start in any attempt to correct this issue?]

Within this context, one research project looked at the difference between sucrose and dextrose. They placed baboons on two diets, one heavy in each component. The sucrose was 3 times as fattening over the 26-week period of the experiment!! Howell refers, though, to choosing between these two ingredients as "the difference between a rattlesnake and a cobra"! In one experiment on rats, the increased use of sucrose shortened male lifespan by 15% and females by 5%.

Regarding milk, Howell says we must stop referring solely to its qualities, as is modern obsession, to it being all about fat %, and possibly also considering proteins etc. We should appreciate that it is loaded with enzymes in its raw or natural state, but not once it is pasteurised. It is too late then, as it has become wholly devalued, nutritionally. Milk is only pasteurised to ensure minimal risk of toxic infectious carry-over, whereas if the production cycle was healthy we would not have such a problem in the first place. Furthermore, through depleting the enzyme supply from milk and forcing the body to use its precious reserves, we could ask if we are really providing a good trade off between disease prevention at the point of consumption and longer term reduction of the body's ability to defend itself.

We all want to have healthy babies, and consequently children. Many scientists have studied the diet of the mother and measured its impact on the health of the offspring. Using the weight of the pituitary gland as an accepted measure of the individual's health status, Dr. Howell analysed 111 pituitary glands from dead people, of all ages. He found 27% of babies had abnormally sized glands, indicating an improper diet being followed by the mother. The level of abnormality became more pronounced with the increasing age of the person, being 50% between age 1-20, and for 40-60 this had risen to 90%.

What these figures would be today is not clear – but do we realistically expect them to be improved by the modern diet? He concluded that “nature is a relentless accountant”.

Dr. Howell highlights the stark difference between raw starch and cooked starch, and its profound effects, as monitored in diabetics. He also notes that a study of Eskimos showed that out of 3000, only one was overweight, and yet their diet is full of fat. His explanation is that they eat uncooked fat, and this clearly has very different properties and impacts on the human body. The same results have been noted for those who eat raw dairy fats, unpasteurised, compared to the treated and processed alternative.

Dr. Maynard Murray researched whales that were killed, and presented a report on his findings. He noted that the carcass of a whale repeatedly had up to 8” of body fat, yet on dissection showed no sign of atherosclerosis in either coronary or aortic blood vessels.

In the 1971 American Heart Journal, they reported research by Dr. G. E. Birch. He noted that feeding animals excessively after birth led to increased fat cell multiplication and deposition. Once produced, these cells never disappear, being there for life and ready to impact on health and the tendency to ‘put on weight’ right through to the grave. The person with those fat cells from the early years will easily amass weight when overeating at any stage of life. The person who had a good diet in the early years will tend simply to become plump but not become fat easily, as they do not have that bank of fat cells ready to absorb more content.

In one piece Dr. Howell refers to the enormous dietary value to be gained from sprouted foods – grains or beans, and any other seed one cares to use. He remarks that one would “find protein, carbohydrate, fat and calories we will ever need. The world is looking for someone to put these items on the market in as palatable form, untouched by heat and free from enzyme inhibitors..... It would be a great help if germinated cereal grains were available on the market in a raw and palatable form.”