

Food processing

By Heidi du Preez

Whole foods are relatively cheap. To increase profit, food processors change them into 'value added' products, because more can be charged for foods that have been changed by processing technology. They may add 'value' to the manufacturers pockets, but not to your health. Processed products are 'value subtracted', since processing removes and/or destroys nutrients, and/or add toxins in the form of preservatives, flavourants, colourants and other processing aids (chemicals). Processing has little to do with health, but much to do with profit. The focus of the end product is appeal, convenience and extended shelf life. Optimum nutrition is not the driving force.

Food manufacturing, more than farming practices, is the greatest cause of vitamin loss. Foods are refined and preserved so that they last longer. Sugar lasts forever, white flour cannot support the life of a weevil. That's what we eat. Refined flour, rice and sugar lose more than 77% of zinc, chromium and manganese. We need all these nutrients to metabolize the food we eat.

The body has a variety of mechanisms enabling it to change the food we eat into glucose and a variety of other mechanisms with which to dispose of the glucose in the form of heat, energy and fat. Our body therefore burn the food we eat in the presence of oxygen (air we inhale), to release energy and heat. When we compare this process to a fire, then the food we eat serves as the burning material, the firewood to sustain the fire. Except for oxygen, what else is needed for the fire to burn? A match to ignite the fire. The match represents the enzymes, vitamins and minerals needed to spark the fire. Enzymes initiate, accelerate and terminate critical metabolic processes by catalytic action. Enzymes are the workforce of the body. Coenzymes, which come from essential vitamins and minerals, are needed for enzymes to function effectively.

Carbohydrates are the fuel for our body. They produce the energy needed by every living cell. Carbohydrates are turned into sugar, which is then broken down to glucose. Complex carbohydrate, like sugar cane contains a large amount of fiber, some proteins, minerals, vitamins, enzymes, lots of water, and a little sugar. All of these essential nutrients are necessary to convert the sugar to energy. However, during the refining process, all the water, protein, fiber, enzymes and most of the vitamins and minerals are removed. The refined sugar still has calories, which will result in energy. However, the calories in refined foods are called 'empty' calories because they provide no nutrients e.g. vitamins, minerals and enzymes. The quality of what we eat is therefore just as important as the quantity. Furthermore, all metabolic reactions produce metabolic waste, e.g. free radicals are formed. We can compare this to the smoke of a fire. The more food we eat, the more energy are produced, but at the same time more free radicals are formed, leading to premature aging and degenerative diseases.

When we feel low in energy and spirits, we usually eat a chocolate to give us a "boost". The refined sugar and fat in the chocolate are converted to energy. However, the chocolate does not have the necessary enzymes, vitamins and minerals to sustain the thousand of chemical reactions, which metabolize the sugar and fat to energy. These essential nutrients are then robbed from our own body, to sustain the chemical reactions. We'll first deplete nutrients from our skin, therefore wrinkles being the first sign of aging. There after the body will take the needed minerals from our bones and then the body has to come to the rescue and supply these enzymes, vitamins and minerals from different glands, muscles, nerves and blood to help in the

demanding digestive process. There is a good correlation between chronic and degenerative illness and a depletion of enzymes, vitamins and minerals in the system. We usually think of a chocolate as extra weight on the hip, but does not always realize that it actually rob our body of essential nutrients. Before you put anything into your mouth, ask yourself the question: "will it provide nutrients to my system, or deplete"?

All refined foods do not carry within it the nutrients for its own digestion, and therefore robs the body of nutrition, which it may not have in reserve. Wheat, for example, has 25 nutrients removed in the refining process that turns it into white flour. In our community, sugar and refined flour are the main culprits, but refined rice, sifted corn meal and pastas play a major role in causing diseases if taken in large quantities.

All food has to be broken down to the simplest building material – by enzymes, vitamins and minerals. The more enzymes and other nutrients we consume from "live" whole food, the less the body has to manufacture or borrow it from the reserve bank of enzymes and nutrients.

Furthermore, our bodies need sustainable energy, not artificially boosted by the short-lived highs from negative stimulants e.g. caffeine (coffee, tea, cocoa and fizzy drinks), alcohol, smoking, and drugs. When the metabolism is stimulated artificially by these stimulants, many enzymes, vitamins and minerals are used. They whip up the heartbeat and flow of blood and oxygen to the different parts of the body and brain. States of depression must be the eventual outcome after the stimulation of them have lost their effect – for once this occurs the body feels the great loss of vitality and energy which has resulted through this stimulation. It is like throwing benzene on a fire. The fire will burn higher and brighter, but only for a short time, after which it will be completely burned out. At the same time more "smoke" (free radicals) is produced, leading to premature ageing and degenerative diseases.

Caffeine for example depletes the body of the B vitamins. The high tannin levels in tea can also cause iron depletion if drunk in excess. Alcohol follows the same metabolic pathway as sugar, and is just as detrimental to health. Alcoholic beverages deplete vitamin C from the body. It is also well known that cigarette smokers have lower Vitamin C levels than non-smokers do. A single cigarette can deplete as much as 35 mg of Vitamin C from the body (calcium & phosphorus are also depleted in cigarette smokers).

Drugs (medicine) are serious stress producers in the body because the body must exercise great effort in expelling them as quickly as possible, lest they damage tissues and cells and interfere with normal functioning. Because vitamin C reacts with any alien substance in the bloodstream, all drugs and pollutants can be considered to be vitamin C antagonists. The long drug list of antagonists includes atropine, barbiturates and antihistamines. Birth control pills are anti-vitamins, especially of riboflavin, B₆, B₁₂ and folic acid (the oestrogen in oral contraceptives is also an antagonist of Vitamin E). Aspirin interferes with digestive processes and can result in stomach bleeding. It interferes with blood clotting and lessens the ability of cells to absorb glucose for heat and energy. It depletes most, if not all, nutrients and results in especially high losses of Vitamin C & Bs, as well as the minerals calcium and potassium. Diuretics are drugs prescribed medically to promote weight reduction, hypertension or to relieve pressure of retained fluids. The use of diuretics result in great losses of B vitamins, vitamin C, other vitamins, and the minerals potassium and magnesium. All laxatives, including the herbal types, are vitamin antagonists. Laxatives will not need to be used by people on a natural raw food diet of fruits, vegetables, sprouts, nuts and seeds.

Food additives also deplete the body of nutrients. For example, the food colouring tartrazine is an antagonist of zinc. Furthermore soil, air and water pollutants are anti-vitamins. But the

greatest thief of all, robbing the body of nutrients and producing many free radicals, is stress. We might not come face to face with a lion everyday, but experience numerous everyday stresses. They produce an internal state of chronic stress. It's like an engine running at slightly elevated revolutions, burning more fuel and producing more smoke (exhaust fumes). Surgery, accidents, overly exhausting work or exercise, lack of sleep, exposure to extremes of heat or cold and emotions such as fear, hatred, anger, worry and grief all produce great stress on the body. The B vitamins, vitamin C as well as proteins and minerals, are all depleted and/or can not be assimilated as a result of stresses on the body. No vitamin can be properly utilised when the body is under stress.