A Chapter from one of David Brownstein's Books

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Diet

This section of the book was written to assist the reader in using proper dietary techniques that will allow the body to overcome illness and provide the body with the proper nutrient levels for achieving optimum health.

A balanced diet is essential in order to achieve optimum health and to overcome a chronic illness such as arthritis. Sadly, most Americans eat a poor diet. An improper diet will not only result in a poorly functioning immune system, it will also inhibit the natural healing mechanism of the body, promote obesity and accelerate the aging process.

Food consists of three major macronutrients: carbohydrates, protein and fat. Carbohydrates are found in plant products and include starches and sugars. They are found in fruits, vegetables, grains, pasta, bread, cookies, alcohol, etc. Proteins are the building blocks of the body and they form the muscles and organs of the body. An adequate intake of protein is also necessary to produce hormones. Sources of protein include animal products (the most complete form of protein), vegetables such as beans and legumes, seeds and nuts. Fat contains more energy than either protein or carbohydrates, and is essential for forming cell membranes and for hormone production. In addition, fat acts as a carrier for fat-soluble vitamins, including Vitamins A, D, E and K. Fat is found in animal and vegetable products. Vegetable fats are found in oils such as olive oil, flaxseed oil, corn oil, etc.

The American public has been told by organizations such as The American Medical Association, The American Cancer Society, dieticians, their own physicians and the government that we must eat low fat, high carbohydrate foods in order to be healthy. This is expressed in the food pyramid that is so well known. I refer to this diet as the "Standard American Diet" or the SAD diet (because it leads to poor health and SADness).

In the last twenty years fat consumption has decreased by 11% in this country. What has been the result of twenty years of following a diet low in fat and high in carbohydrates? It has made Americans the most obese people on this planet. In fact, during the last twenty years while fat intake has decreased, obesity has increased by 32%. In addition, the incidence of chronic illness has accelerated during this same time frame. The Standard American Diet is a major cause of the tremendous growth of degenerative disorders seen in this country. These disorders include arthritis, autoimmune disorders, cancers, coronary artery disease and many others. Also, this diet promotes an imbalanced hormonal system. In order to promote health, we must understand the important role of food in providing fuel and nutrients for our bodies. We can now also understand how to use food to provide our bodies with essential nutrients to promote true healing.

One of the first steps in promoting health and healing is looking at food as a drug. Dr. Barry Sears, author of the bestseller Enter the Zone, claims, "Food is the most powerful drug we will encounter." Proper choices of food will provide the body with the raw materials necessary to promote health, along with supporting a healthy immune system. Sadly, a healthy immune system is nearly impossible to maintain while eating the typical American diet. In fact, the people I see in my practice that eat low fat, low protein, high carbohydrate diet often have the most sever illnesses and have a difficult time achieving optimum health. Often, those suffering with a chronic illness such as

arthritis are following the wrong dietary plan, one that is increasing the severity of their condition.

In order to allow the body to overcome a chronic illness such as arthritis, one needs to eat a balanced diet by combining the proper amounts of protein, fats and carbohydrates. A balanced diet can provide the body with the proper nutrients necessary to have a healthy immune system, which in turn, promotes healing in the body. The proper nutrients come from all food sources - proteins, fats and carbohydrates.

Protein

Protein is the second most common substance in our bodies (second only to water). Adequate protein intake is necessary to promote general health and a balanced hormonal system. Proteins are the building blocks for all of the structural tissue of our bodies and are required to form muscles, bones, nerves, arteries, veins and skin.

Hormones are synthesized from protein. Enzymes, the catalysts for physiological reactions, are also made from protein. Enzymes are found in raw food products such as fruits, vegetables and animal products and are deactivated at temperatures above 118 degrees Fahrenheit. Enzymes in food aid our body's digestive process. Therefore, it is important to eat adequate amounts of raw food in order to achieve the benefits of natural enzymes.

Protein is found in animal products and in vegetables. Free-range eggs (eggs from un-caged chickens that are not fed any hormones or antibiotics) are a wonderful source of protein and should be eaten on a daily basis. Animal protein is the only source of complete protein available (I.e. containing all of the essential and non-essential amino acids). Vegetable protein found in seeds, nuts, legumes and cereals, does not contain all of the essential amino acids.

The typical American diet recommends limiting animal products (consequently limiting protein) and increasing the consumption of grains and vegetables. Protein deficient individuals cannot satisfy the body's daily needs for maintaining structure and repairing injuries. Therefore, protein deficient individuals have an increased chance for developing a degenerative disease such as arthritis. These individuals may also have hormonal deficiencies (with the thyroid being the most affected gland). Protein deficiency can also promote vitamin and mineral deficiencies (in particular, Vitamin B-12 deficiency).

Vegetarians must take special care to be certain that their diet is appropriately balanced with all of the essential and nonessential amino acids. Historically, humans have eaten animal products, augmented with vegetables, fruits and nuts. It is my belief that eating organic animal products (those that are free of antibiotics and hormones) is a safe and healthy way to provide the body with the necessary elements (protein and fat) to promotes health and to have a properly functioning immune and hormonal system. My experience has shown that those who limit protein intake are more likely to develop degenerative disorders.

Fat

Fat is the most maligned macronutrient. Sally Fallon, author of Nourishing Traditions writes, "Protein cannot be adequately utilized without dietary fats. That is why protein and fats occur together in eggs, milk, fish and meats." We have been brain

washed by the dieticians and the diet industry into believing that eating fat is bad for our health and that dietary fat is responsible for obesity. However, many studies indicate that low fat diets do not improve health or curb obesity.

In the United States, from 1910 to 1970, saturated animal fat consumption decreased from 83% to 62% of the American diet. During this same time, heart disease (as well as degenerative diseases such as cancer, autoimmune disorders and arthritis) increased over 1000% in Americans. Low-fat diets not only contribute to poor health; they also guarantee a poorly functioning hormonal system and a weakened immune system.

Not all fats are created equal. Many physicians and dieticians consider all fats to be a problem. However, eating the right kind of fat (one which is rich in nutrients) is essential to having a healthy immune system and is necessary for the body to overcome illness.

Fats are found in most natural foods. Fat is an essential nutrient for our body and is necessary for the following functions:

1. Energy production
2. Forming the skin and coverings of the major organs of the body
3. Maintaining cell integrity in every cell in the body

Fats can be classified as organic substances that are insoluble in water. All fats can be classified according to their chemical structure. The following are the most common fats in our diets:

1. Monounsaturated fats (e.g., olive oil)
2. Saturated fats (e.g., animal fats, butter, coconut oil)
3. Polyunsaturated fats (e.g., flaxseed oil, fish oils, most vegetable oils)

Fats, like all substances, can have good and bad properties. "Good" fats provide the body with healing nutrients and help the cells of the body maintain their integrity. They are found in whole foods and are necessary for healing and the promoting of optimal health. "Bad" fats poison the cells of the body and cause nutrient deficiencies, particularly deficiencies of the fat-soluble vitamins A, D E and K. "Bad" fats are found in hydrogenated oils and trans fatty acids.

Fat is found in both animal and vegetables sources. Fat has a higher energy content than either proteins or carbohydrates. Every cell membrane in the body contains fat, and all steroidal hormones are produced from the fat-like substance cholesterol. Fat is necessary for the absorption of fat-soluble vitamins, including vitamins A, D, E and K. Protein cannot be adequately utilized without proper amounts of fats in the diet.

Since fat is so important to our over-all health, it is crucial that we obtain a sufficient amount of the proper types of fat. Ingesting the wrong types of fat will promote a poor immune system, a poor healing capacity and a malfunctioning hormonal system.

Essential Fatty Acids

Fats can be further classified into essential fatty acids and non-essential fatty acids. Unsaturated fatty acids are termed essential fatty acids because our bodies cannot manufacture them; therefore, they must be taken in from the diet. Essential fatty acids consist of omega -3 fatty acids (derived from linolenic acid) and omega-6 fatty acid (derived from linoleum acid). Essential fatty acids are necessary for a wide range of functions in the body, including hormone production and immune system functioning. A

deficiency of essential fatty acids has disastrous consequences on the functioning of the immune system. The immune system cells are dependant on receiving adequate amounts of essential fatty acids from the diet.

Deficiencies in essential fatty acids have been linked to many chronic, degenerative disorders, including coronary artery disease, hypertension, hormone abnormalities, autoimmune disorders, strokes and cancer. Unfortunately, the Standard American Diet is deficient in omega-3 fatty acids. Adequate amount of omega-3 fatty acids are found in free-range eggs, cold water fish (non-farm raised), some vegetable oils (flaxseed oil is one of the best sources) and some nuts and seeds. For most people it is important to increase the amounts of omega-3 fatty acids in the diet.

Another concern with essential fatty acids is the disproportionately large amount of omega-6 fatty acids relative to omega-3 fatty acids found in the typical American diet, which can lead to obesity and an increase in inflammatory diseases. Omega-6 fatty acids are found in most vegetable oils (e.g., sunflower, safflower, corn, primrose, borage and black currant oil) and many nuts and seeds.

Cooking oils are a major source of fat in our diet. Using the wrong type of cooking oil can have a disastrous effects on our health. Cooking oil used by the majority of Americans not only contains the wrong kind of fatty acid but also is devoid of almost all nutrients. The vegetable oils commonly found in grocery stores have been processed into partially hydrogenated vegetable oil, which results in the removal of almost all of the nutrients from the oil. Also, these processed oils may contain the heavy metal nickel, which is used in the hydrogenation process.

The hydrogenation process of oils also causes the oil to contain large amounts of trans fatty acid, which are known toxins to the body. These oils are damaging to the body's DNA and are associated with many degenerative diseases including cancer, arthritis, heart disease, diabetes, obesity, immune system disorders and others.

Partially hydrogenated vegetable oils include corn oil, canola oil, and cottonseed oil. Margarine should be avoided at all costs; butter should be the spread of choice. Every cell membrane in our body contains a mixture of unsaturated and saturated fatty acids. These fatty acids give the cell membrane its fluidity and flexibility. The cell membrane is the point where nutrients are absorbed into the cell. Ingesting the wrong types of fatty acids forces the body to accumulate the wrong types of fatty acids into each of the cells of the body. When we eat hydrogenated fats containing trans fatty acid, these toxic substances are actually incorporated into our cell membranes. The cells can no longer absorb nutrients and perform the critical functions necessary to promote health. Dr. Walter Willet, chairman of the nutrition department at the Harvard School of Public Health, claims, "Introducing trans fatty acids into the American diet is the single most harmful thing the food industry has done in the last 100 years. In addition, Dr. Willet estimates that consumption of trans fatty acids in the united States accounts for thirty thousand premature deaths per year.

Partially hydrogenated oils are toxic to the body and should not be used under any circumstances. Furthermore, those with a chronic illness must make a special effort to eliminate these toxic substances from the body. Many products are made with partially hydrogenated oils; these include crackers, cookies, cakes, pasta and bread. Whenever you see that partially hydrogenated oils have been used in a product, avoid it. It is possible for the body to overcome a chronic illness when ingesting the wrong types of fat.

On the contrary, using the right cooking oil can have significant health benefits. Good oils are generally found in darkened containers because light is damaging to healthy oils. They should have an expiration date, as contrasted with hydrogenated oils that are devoid of all living matter and can sit on the shelf forever. Healthy cooking oils include extra virgin olive oil and coconut oil.

Despite the fact that nutrition experts consider coconut oil atherogenic (i.e., promoting coronary artery disease), it is a good source of saturated fatty acids, especially for vegetarians who eat little saturated fat. Saturated fats are necessary for the proper utilization of essential fatty acids. Coconut oil is commonly used by populations in the tropics where there is little heart disease. Choosing the right oil can have a major impact on the immune system, hormonal system and over-all health.

In addition to healthy oils, organic nuts and seeds are healthful sources of fats. Also good sources of fat are organic animal products, including eggs, meat and chicken. Organic animal products have a much more favorable fatty acid composition than do the products of conventionally raised animals.

Carbohydrates

Carbohydrates are produced in all green plants in the form of starches and sugars. Glucose and fructose are examples of sugars. Starches are sugar molecules bound together. Carbohydrates are necessary for the body to transform fat into energy. However, the body has mechanisms to convert excess carbohydrates into fat. Sadly, the Standard American Diet contains too many carbohydrates and has made Americans the most obese people on the planet.

There are two categories of carbohydrates: refined and unrefined. Refined carbohydrates are formed from the processing of foods, a process which strips food of many of its vitamin and mineral components. The following are examples of ingredients and foods that contain refined carbohydrates:

1. White sugar and white flour
2. Pasta
3. Corn starch
4. Breakfast cereals
5. Cookies, cakes, bagels, doughnuts and other baked goods

Eating these "refined" foods is very damaging to the body. Since these foods lack vitamins, minerals, and enzymes, which are necessary for proper digestion, the body must use its own source of vitamins, minerals and enzymes. Overuse of refined carbohydrates can lead to a multitude of health problems, including obesity and nutritional deficiencies. In addition, the increase in the use of refined carbohydrates has been directly associated with the rise in degenerative disorders (arthritis, diabetes, cancer, autoimmune disorders, fibromyalgia, chronic fatigue and others) in the industrialized world over the last fifty years.

Refined carbohydrates also interfere with the normal blood sugar regulation in the body. Refined carbohydrates are absorbed in the body very quickly and will result in a rapid rise in blood sugar levels. The pancreas will respond to this rise in blood sugar levels by raising insulin levels. Excess insulin levels are an oxidant stress on the body and will accelerate the chronic disease process. Elevated insulin levels also deplete the body of a chemical called Cyclic AMP. Hormone synthesis in the body depends on adequate

Cyclic AMP levels. The rapid rise in blood sugar levels coupled with a rapid rise in insulin levels will result in insulin insensitivity and, ultimately, diabetes. Also, this rapid rise in blood sugar levels will lead to poorly functioning immune and hormonal systems.

Unrefined carbohydrates are found in whole foods, such as fruits vegetables and whole grains. These whole foods contain vitamins, mineral, enzymes and fiber that aid the body in their digestion. Therefore, the body does not become depleted from the ingestion of unrefined carbohydrates (in contrast to the ingestion of refined carbohydrates).

One must choose carbohydrates that do not excessively raise blood sugar levels. Dr. Barry Sears, author of The Zone books, states "All carbohydrates are not created equal." Carbohydrates can be rated on a "glycemic index" scale. Good carbohydrates will have low glycemic index ratings; they do not excessively raise blood sugar levels. "Bad" carbohydrates will have a high glycemic index rating; they will cause blood sugar levels to elevate quickly, resulting in an exaggerated insulin response. There is no question that eating foods with a low glycemic index is more beneficial than eating foods with a high glycemic index.

Putting It All Together

So what do you do to give your body the best chances to heal itself and to achieve optimum health? I have found that a balanced diet containg adequate amounts of good sources of each of the macronutrients (i.e., proteins, fats and carbohydrates) will provide the body with the essential elements it needs to repair injured tissue, maintain a properly functioning hormonal system and promote a healthy immune system.

It is absolutely necessary to eliminate the excess use of refined carbohydrates (refined sugar and refined flour) in the diet. These substances deplete the body of its own source of vitamins and minerals, resulting in hormonal imbalances and causing a large oxidant stress on the body. I have found that limiting carbohydrates to no more than 40% of the calorie intake is paramount to the balancing regimen. In addition, adequate amounts of the right kinds of fat and protein (approximately 30% each of the total caloric intake) will allow the body to maintain good health. This combination parallels Dr. Sears' Zone diet. Although I do not agree with Dr. Sears on all points, I believe his books provide readers with a good starting point for balancing their dietary regimen. For more detailed discussion of this topic, I refer the reader to two sources: Dr. Barry Sears' Enter the Zone and Sally Fallon's Nourishing Traditions.

Finally, I encourage readers to think about the food they are eating. We all need to take responsibility for the foods that we eat. If we eat foods that are devoid of nutrients (e.g., refined sugar), our health will suffer. Making simple dietary adjustments, including eliminating refined sugar and trans fatty acids, and eating low glycemic carbohydrates, will result in an overall improvement in your health. If we eat whole foods that supply our bodies with good sources of nutrients, we will give our bodies the best chance to heal.