
DIET & SUPPLEMENTATION
Keys to Optimal Health

Dr. Emanuel Cheraskin, M.D., D.M.D.

International Academy of Science

Dr. Emanuel Cheraskin – Pioneer of Good Nutrition and Good Health

The work and research of Dr. Emanuel Cheraskin, professor emeritus at the University of Alabama Medical School, has laid a foundation for the development of practical nutritional guidelines and superior multi-vitamin/mineral supplements. His approach to discovering the dietary needs of human beings is new and revolutionary – he studies healthy people instead of sick animals! He looks at the diet and lifestyle of people with “good health” and draws his conclusions from his findings.



Dr. Emanuel Cheraskin

Dr. Cheraskin has emerged as the world’s foremost authority on the nutrition and the vitamin/mineral supplements required by a healthy body. In this paper he provides a summary of his findings with specific recommendations regarding positive steps that can be taken to improve health. All would do well to heed these guidelines.

Dr. Cheraskin began his career in medicine, working his way through medical school and practicing briefly in the military and in rural Alabama. However, because of his fascination with the mouth, he went back to school to study dentistry, and in due time created the Department of Oral Medicine at the University of Alabama School of Dentistry.

Over the years, Cheraskin discovered many connections between the health of the mouth and the rest of the body. These discoveries sparked an enduring and consuming interest in nutrition. Even though he was trained in dentistry and medicine, he came to consider nutrition his field, and this is where he did the bulk of his research.¹

Dr. Cheraskin has authored and co-authored over 700 publications in international scientific journals and 22 books including *Psychodietetics*, *Diet & Disease*, *Predictive Medicine*, *The Vitamin C Connection*, and most recently *Vitamin C: Who Needs It?* His techniques and findings have been acknowledged by his peers, and his work has been noted in “Who’s Who in America”, “Who’s Who in Health Care”, and “World Who’s Who in Science”. He is a world-renowned lecturer at universities, medical, dental and chiropractic colleges, and has been a popular speaker at many conferences on preventive medicine.

Of his many accolades, Dr. Cheraskin has been known to say that, “if his work can’t speak for itself, then all the honors of men are meaningless”. From the life altering benefits many have derived as they have changed their health habits as a result of his research, it is evident that Dr. Cheraskin’s work most assuredly speaks for itself. Indeed, we owe Dr. Cheraskin a debt of gratitude for his contribution to our good health.

¹ Oral History Interview with Dr. Emanuel Cheraskin August 22, 1989 Birmingham, Alabama by Virginia Fisher. From the collections of the UAB Archives the University of Alabama at Birmingham, Birmingham, Alabama.

DIET & SUPPLEMENTATION – KEYS TO OPTIMAL HEALTH

by

Dr. Emanuel Cheraskin

Introduction: Two Keys

The condition of our bodies helps to determine the level of joy we experience in this life. We are each issued a body when we are born, and it serves us for our entire journey. None of us came with an “owner’s manual” on how to operate and maintain this body, but over time, through study and observation, researchers have discovered some things that contribute to its smooth functioning. Piecing this information together gives us some general guidelines for its care and maintenance. When we use these guidelines, coupled with our own observations of how we feel, we can create our own personal “owner’s manual” to help build optimal health.

The choices we make about what we put into our body impact our ability to efficiently accomplish our day to day tasks. If we want a “high performance vehicle”, we need to provide it with “high performance fuel”. **Two key areas** to look at to accomplish this are **vitamin/mineral supplementation** and **daily diet choices**.

KEY I: Vitamin/Mineral Supplementation

In my years as a scientist, my colleagues and I have studied the effects on the human body of diet choices and nutritional supplements. Our conclusions are that both are important. We had assumed that we would find diet important to good health, but we also found that even with an optimal diet, it is important to take supplements¹.

From our study, if the question were asked, “If I follow your optimal diet, will I get an adequate supply of all the essential nutrients, including vitamin C?” The answer would have to be, “Well, ‘adequate’ probably, but ‘optimal’, not a chance!”

First of all, too much nutritional value is lost in the garden-to-gullet transit. Various processing techniques, plus transportation, storage, freezing, thawing, canning, cooking, and an almost inevitable time lapse between cooking and eating all combine to destroy nutrients in a way that’s hard for even the most health conscious individual to combat.

Other factors can deplete body stores of vitamin C, such as individual biochemistry, psychological stress, surgical operations, physical trauma from accidents, many kinds of illnesses, lack of exercise, environmental pollution, the

aging process, literally hundreds of medicines, and other factors too numerous to repeat. Food alone – even our optimal diet! – cannot assure this hedge against nutritional depletion.

•Facts about Vitamins/Minerals

Gerard J. Tortora and Sandra Reynolds Grabowski² illuminate the role vitamins and minerals play in our bodies. They point out that hormones are the primary regulators of metabolism, but that they are ineffective without the proper minerals and vitamins. Enzyme systems that catalyze metabolic reactions use some minerals and many vitamins.

Minerals are inorganic substances. They can be found in combination with each other, in combination with organic compounds or as ions in solution. Minerals make up about 4% of the total body weight and are most concentrated in the skeleton. A major role of minerals is to help regulate enzymatic reactions.

Vitamins are required in minute amounts to maintain growth and normal metabolism. Unlike carbohydrates, lipids, or proteins, vitamins do not provide energy or serve as building materials. Their most important function is the regulation of physiological processes. Most vitamins serve as coenzymes.

Almost all vitamins must be ingested. However, some vitamins, such as vitamin K, are produced by bacteria in the GI tract and then absorbed. Others, like vitamin A, can be produced when the provitamin beta-carotene is present.

•Chelation

Of course, merely ingesting minerals does not always mean they will be readily metabolized. In an article appearing in *Journal of Applied Nutrition*³, Drs. Oscar Pineda, H. DeWayne Ashmead, Jose M. Perez, and Carlos P. Lemus reported a study looking at how effective Ferrous iron chelated to amino acids was in treating iron deficiency anemia compared to FeSO₄. They reported that formal studies of iron absorption have shown that the chemical form in which the element is present in the intestine is as important as the total amount in the diet. In general, inorganic iron salts are poorly absorbed, and if they are soluble, compounds present in the diet such as fibers, phytates, phenols and divalent

anions may bind the metallic nutrient and interfere with its absorption. On the other hand, iron chelated to an amino acid is readily absorbed by the intestinal mucosa and released within the mucosal cells by the action of an enzyme. Their studies showed that amino acid chelates have a higher bioavailability than FeSO_4 and an absence of unwanted side effects.

•Trace minerals

Scientists have known for some time about the function and importance of vitamins and minerals to good health. Our own findings have also shown the importance of trace minerals to the human body:

Doctor Henry A. Schroeder^{4,5,6} from the Dartmouth Medical School in Hanover, New Hampshire, and Brattleboro Memorial Hospital in Brattleboro, Vermont, has reported a very interesting relationship between municipal drinking water and cardiovascular death rates. According to his observations, softer water is associated with higher death rates. Thus, some factor either present in hard water or lacking in soft water appears to modify mortality rates from degenerative cardiovascular disease. On the other hand, he has noted no correlation between hardness of water and noncardiovascular deaths.

Doctor Schroeder's original observations of a highly significant (statistically) negative correlation between the degree of water hardness and death rates from hypertensive and arteriosclerotic heart diseases (1949-1951 statistics) have persisted in his analyses of figures for 1960. Statistical study of death rates from 88 cities of the United States with the levels of bulk and trace elements in municipal water supplies showed negative correlations for 12 major and 4 trace constituents. The purer the water in terms of dissolved elements, the higher was the cardiovascular death rate. According to Doctor Schroeder, the waters associated with the highest death rates were of a nature considered corrosive to metal pipes. The ability of the water to dissolve metal from pipes depends directly upon the degree of softness and the concentrations of carbonic acid, alkaline bicarbonates, chlorides, and sulfates. Swedish investigators have also reported a highly significant negative correlation between the calcium ion concentration and deaths from arteriosclerotic heart disease⁷.

Further evidence that dietary trace elements may play a role in coronary heart disease has come from a comparison of the concentration of trace minerals in normal and infarcted heart tissue⁸. In injured tissue compared with uninjured

there was a decrease in cobalt, cesium, potassium, molybdenum, phosphorous, rubidium, and zinc and an increase in bromine, calcium, cerium, lanthanum, sodium, and samarium. A comparison of the concentration of trace elements in uninjured tissue from infarcted hearts with that in normal heart tissue revealed a decrease in copper and molybdenum and an increase in arsenic and cerium in the uninjured tissue⁹.

From this study we see cardiovascular disease is significantly reduced by the ingestion of trace minerals.

•“Ideal” Nutrient Requirements and the RDAs

Where does all this diet and supplement research leave Americans? The U.S. government, after all, has an agency – the Food and Nutrition Board to study and recommend levels of nutrients important in healthy diets. These levels are called “Recommended Daily Allowances” (RDAs).

In the course of my research, I studied and analyzed the commonly accepted RDAs established by the U.S. government¹⁰. Their dietary recommendations grant that there are approximately 50 known nutrients. Generally speaking, they provide precise requirements for some, but in other instances, they suggest intakes that are more general, and several nutrients have no pronouncements at all.

In our own research we learned that certain nutrients were essential to good health. In order to discover the “ideal” nutrient requirements for humans, we studied a group of people who already had achieved good health. From a group consisting of more than a thousand dentists and their wives, information was gathered by means of the Cornell Medical Index Health Questionnaire (CMI), a self-administered health survey consisting of 195 questions. Each question is answered by circling “yes” or “no”; the questions are phrased so that the affirmative answers indicate pathology. The clinical findings are then based on the total number of affirmative CMI responses. The “ideal” daily consumption of various nutrients was based on the hypothesis that a relatively symptom-less and sign-free person is healthier than one with clinical symptoms and signs. The amount of nutrients necessary to be symptom-free was considered to be “ideal”. **In some studies the “ideal” intake appeared to be two to tenfold that of the FDA recommended or suggested dietary allowances.**

Vitamin C: During the course of our research we came upon some interesting findings. For example, we discovered that in its most recent

publication, the Subcommittee has offered few changes from its suggestions in 1985. It proposes that 60-mg daily continue to be the accepted recommendation for both adult male and female. How possible is this to achieve? To satisfy the current 60 mg per day vitamin C requirement means eating approximately three servings of fresh vegetables and two fresh fruits daily. According to the best available evidence today from the National Institute of Health, only 9% of Americans take in that much vitamin C¹¹. The single official change in the recommendation is that, "regular smokers ingest at least 100mg of vitamin C daily."

These amounts only described the amount of ascorbic acid that will protect us against the worst and classical deficiency symptom, scurvy. There is a big difference between being healthy and merely preventing devastating disease.

Emil Ginter from the Research Institute of Human Nutrition in the former Czechoslovakia¹² raises an interesting point. "Ideal RDA should be based on studies with increasing vitamin C doses in which the efficiency of the ascorbate dependant systems would be correlated with the vitamin C concentration in the target tissues..." In other words, how much vitamin C is necessary to maintain benefits such as desirable serum cholesterol concentration? In his own words, "It is probable that in healthy adults (still-to-be-defined), such a dose ranges from 100 to 200mg, and that in stress conditions it exceeds 200 mg per day."

Using the CMI Health Questionnaire is an innovative way of ascertaining the amount of vitamin C necessary to maintain health in healthy subjects. A number of years ago our team at the University Medical Center in Birmingham, became involved in evaluating the health of health-care providers. The daily vitamin C consumption for 1038 dentists and their spouses was calculated using a (admittedly crude) food frequency questionnaire. This questionnaire assessed the amount of vitamin C consumed from both diet and ascorbic acid or multivitamin supplementation, and then the Health Questionnaire graded clinical state. In this sample of 1038, the CMI ranged from 0 to 125 with a mean of 16. The daily reported vitamin C intake spread from 15 to 1120 mg. Think of it! There are allegedly healthy doctors consuming only 25% (15mg) of the RDA! The average ascorbic acid was 327 mg per day, which is five or sixfold more than the RDA.

Parenthetic mention should be made that both the American Medical Association (AMA) and the American Dental Association (ADA) have indicated that the type of doctor interested in his

own health (and willing to be studied as in this survey) is already above average in health. Hence, in the usual context, these values should be viewed as closer to ideal even though, in fact, they are only normal (average) on the test results.

With further analyses of the data gathered from our study, we saw that the daily vitamin C intake slowly and progressively rose as the number of clinical symptoms (CMI scores) reduced. This approach indicates that the clinically healthier the sample, the greater the daily vitamin C intake. **Under the conditions of this experiment, approximately, 410 mg of vitamin C seems to be necessary for healthy people who wish to maintain health.** It is about seven times the RDA!

This brings us to a mind-boggling addendum¹³. We discovered that two prominent paleontologists, Eaton and Konner from Atlanta¹⁴, in their magnificent and monumental report, outline the diet of our remote ancestors as a reference standard for modern human nutrition and as a model for defense against certain so-called diseases of civilization. *Apropos* vitamin C, it was estimated from the mean ascorbic acid content of 27 vegetables consumed by hunter-gathers that the average intake would have been 392.3 mg per day in Paleolithic diets. Eaton and Konner (from their sophisticated and elaborate study of primitive man) came up with 392 mg; from our investigation of the modern human, we find 410mg – a matter of a 4% difference!

These observations have led us to what we now come to call the Optimal Recommended Dietary Allowances (ORDAs). Interestingly, others¹⁵ have also picked up on this buzzword, proposing the term Optimal Dietary Allowances (ODAs).

Vitamin A: The RDA for vitamin A, a fat-soluble essential nutrient, has been set at 1000 retinol equivalents (5000 IU) for the male and 800 retinol equivalents (4000 IU) for the female. The Food and Nutrition Board states that the RDA has been estimated from a combination of dark adaptation (visual) studies and blood values, and by extrapolation from lower animal studies. There is no claim that this dosage is intended as the perfect daily intake for the maintenance of over all general health.

Utilizing the symptom-less and sign-free approach earlier described for vitamin C, the daily range for vitamin A was 1000 to 98209 IU with an average of 19096. It is approximately fourfold the amount designated as the RDA and also four times higher than the average daily vitamin A intake for Americans (4731 IU). The reason is

that many of these subjects supplemented their diet daily with vitamin A rich preparations. It is obvious that progressively fewer symptoms and signs are associated with an increasing vitamin intake. Under the conditions of this experiment, approximately 33000 IU of vitamin A may be designated as the ORDA, a matter of sevenfold the amount of the RDA.

It is now recognized that beta carotene is a precursor of vitamin A. While no specific recommendation is made for these carotenoids, the Tenth Revised Edition of the RDA suggests a vitamin A/beta carotene ratio of 1:2.

Earlier mention was made of Ginter and his revised (higher) RDA for vitamin C based on serum cholesterol. Our laboratory has considered the connection between vitamin E and serum cholesterol¹⁶. Our study consisted of three hundred and sixty doctors and their spouses divided into three groups: 120 under the age of forty, 120 from forty to fifty, and 120 over fifty. The groups were further categorized into those consuming less than 100 IU of vitamin E daily (average 22 IU) and those ingesting on a daily basis 100+ IU (average 158 IU). Clearly, as is well-known and confirmed, serum cholesterol ordinarily rises with advancing age. However, we learn here that the rate at which serum cholesterol advances is significantly different based upon the daily vitamin E consumption. In the group consuming, on the average, 22 IU which is very close to what is presently suggested as the RDA, the climb in serum cholesterol is much greater than in those ingesting approximately sixfold the RDA (average 158 IU). In fact, the 56-year old, taking vitamin E has a body more like a 34-year-old!

Minerals: The Food and Nutrition Board has now assigned reasonably specific recommendations for certain minerals. A case in point is iodine. The current adult RDA for both genders is 150 mcg. We have examined this problem employing our already mentioned symptom-less and sign-free analysis¹⁷. The daily intake of iodine ranged from 100 to 4500 mcg with a mean of 500. This is approximately threefold the amount designated as the RDA. As one looks at a progressively healthier group, we note that daily iodine slowly rises. This study suggests that the ORDA might well be approximately 1100 mcg per day, which is roughly seven times the RDA.

We have also analyzed the possibility of finding an ORDA for magnesium¹⁸. The pattern is very similar. The major difference is that the ORDA appears to be only 15 to 34% higher than the current recommendation.

Others have looked at calcium intake and concluded that the current RDA should be increased by 50 to 100%. One such study dealt with elderly women and the reduction of hip fractures¹⁹. Another double-blind study of identical twins showed that in prepubertal children, calcium supplementation increased bone density²⁰.

The Bottom Line: A Good Vitamin/Mineral Supplement!

Based on our studies of healthy people and their daily nutrient intake, we reached some conclusions about vitamin/mineral supplements:

When choosing a dietary supplement, it is wise to remember that it should provide all the essential vitamins and minerals plus the mistakenly named *nonessential* elements. A supplement should be taken before or during each of your three meals – but certainly no less than twice daily. This will ensure that all of the more than forty nutrients are present at the same time in the digestive tract – a situation that must be maintained for optimal growth, maintenance, and any needed repair of the body's cells, tissues, organs, and systems.

In conclusion, we feel that a good vitamin-mineral supplement will provide daily dosages of nutrients approximating the quantities listed below²¹

Vitamin A	12,500 to 25,000 IU
Vitamin D	500 to 1,000 IU
Vitamin E	300 to 600 IU
(d alpha tocopherol)	
Vitamin C	750 to 1,500 mg
Bioflavonoid complex	400 to 800 mg
Rutin	50 to 100 mg
Hesperidin complex	50 to 100 mg
Folic acid	0.4 to 0.8 mg
Vitamin B1 (thiamine)	12.5 to 25 mg
Vitamin B2 (riboflavin)	12.5 to 25 mg
Niacin	50 to 100 mg
Vitamin B6	12.5 to 25 mg
Vitamin B12	125 to 250 mcg
Biotin	75 to 150 mcg
Choline	100 to 200 mg
Inositol	100 to 200 mg
Pantothenic acid	100 to 200 mg
PABA	50 to 100 mg
Calcium	350 to 700 mg
Phosphorus	100 to 200 mg
Magnesium	175 to 350 mg
Zinc	25 to 50 mg
Potassium	90 to 180 mg
Iodine	125 to 250 mcg
Iron	15 to 30 mg
Copper	0.1 to 0.2 mg
Manganese	5 to 10 mg

Selenium	50 to	100 mcg
Chromium	50 to	100 mcg
Molybdenum	50 to	100 mcg

KEY II: Optimal Diet

Looking at these studies and observing the choices of healthy people, we saw that taking a balanced vitamin/mineral supplement can impact our health in a beneficial way. As we studied the effect diet made on the health of individuals, we found that to promote well being, protein levels might need to be tenfold that proposed by the National Research Council. We also concluded that there is a big difference between the metabolic effects of refined and unrefined carbohydrates. Studies showed that the optimal daily-refined carbohydrate consumption should approach zero. We discovered that the healthier the subject, the greater the complex carbohydrate consumption²².

The American dietary pattern of a decreased consumption of complex carbohydrates (starches) and an increase in simple ones (sugar) is rapidly spreading around the world. These eating habits tend to reduce the intake of protein, vitamins, and minerals since many of the simple carbohydrate foods are relatively low in these nutrients. The substitution of sugar-rich foods by the individual for more nutritious ones further invites a nutrient-deficit.

The dramatic progress in food handling has assured a constant supply of food, notwithstanding population explosion and distribution. Actually, these advances have made larger urban complexes possible. Such consumer demands have led to the creation of many environmental hazards that reduce the biologic value of many nutrient-rich foods. Such factors as transportation, storage, processing, preparation, cooking, and time lapse before eating can contribute to nutrient depletion. The evidence thus far suggests serious flaws in the American diet²³.

The "Optimal" Diet

Our studies inevitably led us to develop what we called the "Optimal Diet"²⁴, which, in essence, is not a "diet" at all. It simply spells out optimal eating for optimal living. There are no calories to count and no need to measure or weigh food portions or servings. All foods are simply categorized into one of three groups: (1) foods to eat liberally, (2) foods to eat sparingly, and (3) foods to avoid. Portions can and should be adjusted to suit an individual's appetite and goals. People who are underweight or overweight, as well as those with special nutritional requirements,

find that the optimal diet helps readjust their metabolic balance; this can eliminate a host of food-related problems, disorders, or diseases. Above all, the optimal diet offers a way to develop *rational eating habits* that can be followed for the rest of your life.

Foods to Eat Liberally

It is especially important to eat foods that contain nutrients to enhance the body's defense system. These *resistance factors* – including protein, unrefined carbohydrates, essential fatty acids, and vitamins and minerals – are found in a variety of wholesome foods.

Because vitamin C is easily destroyed, processed foods should be avoided whenever possible. Let the first choice be fresh foods; the second choice, frozen foods; and the third choice canned. However, vacuum-packed freeze-dried foods and dehydrated foods do retain enough nutrients to make them adequate for use in camping or hiking trips, or during seasons when fresh sources are scarce or when shortages exist because of strikes or crop failures. Vacuum-packed freeze-dried foods can be stored for long periods of time, even for several years.

Here's a list of foods to eat liberally:

- Beans (including dried beans)*
- Berries
- Brown rice*
- Cheese
- Corn*
- Eggs
- Fruit
- Meat
- Milk (preferably low fat or skimmed)
- Nuts
- Peas (including dried peas)*
- Potatoes (Irish and sweet)*
- Poultry
- Seafood
- Seeds
- Vegetables
- Whole-corn meal*
- Whole grains
 - (corn, oats, rice, rye, wheat)*
- Whole-grain breads*
- Whole-grain cereals*
- Whole-grain flours*
- Whole-grain pastas*

*Unrefined carbohydrates.

The Raw and the Cooked: Several of these food groups, such as fruits, berries, vegetables, nuts, and seeds, should be eaten *raw* each day with meals or snacks. When possible, it is best to eat the peelings of fruits and vegetables and the skins of nuts and seeds. These foods are ones that have largely been neglected in American diets, although the emergence of the salad bar has changed things for the better.

If fruits, berries, vegetables, nuts, and seeds *must* be cooked, more nutritional value can be preserved by adhering to the guidelines that follow. To enhance the vitamin C levels, powdered ascorbic acid can be added to food.

1. Don't boil foods in water.
2. Bathe them in steam (away from the water that's generating the steam) by using a closed steamer or pressure cooker.
3. Cover or wrap these foods properly and cook them in a microwave oven.
4. Stir-fry any food for as short a time as possible in safflower or similar oil.

Unrefined Carbohydrates: These foods – asterisked in the list above – are comparatively inexpensive energy-producing sources. Unrefined carbohydrate-rich foods also provide fiber. Fiber is a regulator for both constipation and diarrhea, and it also aids in regulating appetite, blood sugar, blood lipids, and blood pressure. The correct amount of fiber in your diet will produce two (maybe three) bowel movements daily. This is desirable – even though to many constipated Americans it may seem like diarrhea. An excellent source of fiber is unrefined wheat bran.

Vegetarian Plans: For people who wish to abstain from meat, poultry, and seafood, adequate protein can be obtained from eggs, milk, and cheese when eaten with a proper combination of vegetables. Dr. Don Novey, a family practitioner in Carbondale, Illinois, advises those who choose to be vegetarians to combine foods in a manner that will provide a complete protein. What one food may lack, another will supply in essential amino acids, the protein-building blocks. Simply match the following food pairs:

- Beans and seeds or nuts
- Beans and grains
- Dairy foods and beans
- Dairy foods and grains
- Dairy foods and seeds
- Grains and seeds or nuts

A Final Guideline: The real key is to choose a wide variety from the “Foods to Eat Liberally” list. If you do this and follow other suggestions outlined in this section, there is no need to be concerned about the number or the size of servings.

Foods to Eat Sparingly

Here's a list of foods that should be eaten only on a limited basis.

- Animal fat
- Chocolate
- Cocoa
- Coffee
- Hydrogenated fats
(margarine, peanut butter [in excess], shortening, coffee whitener, and many convenience foods)
- Salt
- Soft drinks
(especially the caffeinated varieties)
- Sugar
- Tea

Most people would benefit from reducing their intake of animal fat by trimming it from meat and by choosing leaner varieties of flesh, such as fish and chicken – also by using low-fat or skimmed milk.

Whenever fat is used for frying, seasoning, salad dressing, or as part of a particular recipe, use a highly unsaturated vegetable oil such as safflower, sunflower seed or corn oil. It is better to restrict your intake of the hydrogenated (chemically hardened) fats that are listed above. The hydrogenation and refining of vegetable fat changes the molecular structure of fatty acids and produces a monster fat that human metabolism can't handle.

As for a spread for bread or potatoes, there's an excellent compromise between the saturated and the unsaturated. Blend two softened sticks of unsalted creamery butter with 8 ounces of unrefined safflower oil, then place the mixture in a covered container and refrigerate. This makes a tasty and healthy spread that has the consistency of tub margarine.

Almost everyone would benefit from a significant reduction in salt intake, but especially people with high blood pressure or a tendency to retain fluid. The craving for salt is an acquired taste and one that's difficult to overcome, but if you *gradually* reduce the salt you use, your taste buds will detect smaller quantities. Furthermore, all foods will come alive to your taste buds when they aren't laden with excess salt.

Sugar should be reduced as well. Substituting honey may be a good idea, since it is twice as sweet as table sugar (so you use less) and is principally fructose – a form of sugar that is better tolerated (even by diabetics and hypoglycemics) than sucrose is.

Finally, there is the question of caffeine found in coffee, tea, and a wide variety of soft drinks. Increasing evidence points to caffeine contributing to impaired stress tolerance, hypoglycemia (low blood sugar), emotional disorders, birth defects, and cystic breast disease.

Foods to Avoid

It seems fairly obvious that people should avoid eating or drinking things that increase the likelihood of poor health or disease, but it is not always clear just what these items are. Here is a partial list.

- Alcohol
- Artificial coloring agents
- Artificial flavorings
- Highly processed or refined grain foods
(corn, oats, rice, rye, wheat)
- Sugar-high foods
- “Athletic beverages”
- Bran muffins
- Cakes and icings
- Candy
- Candied sweet potatoes
(or in syrup)
- Chocolate
- Chocolate milk
- Chocolate sauce
- Coffee cakes
- Cough drops
- Custards
- Dessert wines and cordials
- Doughnuts
- Frozen desserts
- Fruit drinks
(canned or frozen)
- Fruit in syrup
(canned or frozen)
- Graham crackers
- Hot chocolate
- Ice cream
- Ice milk
- Lozenges
- Milkshakes
- Mints
- Popsicles
- Puddings
- Punch drinks

- Sherbet
- Sweet pickles
- Sweet rolls
- Sweet syrups
- Sweetened applesauce (and other
sweetened sauces)
- Sweetened breakfast cereals
- Sweetened breakfast drinks
- Sweetened yogurt

It is important to keep in mind that this is only a partial list. Many other foods on your supermarket shelf may be full of “hidden” sugar even though it is not always easy to determine what is in the product by reading the label. Ingredients are listed in descending order of quantity, and sugar can appear in more than one form. All of these substances – sucrose, invert sugar, turbinado sugar, brown sugar, dextrose, glucose, corn syrup, and corn sweeteners – are some form of sugar. When several of these terms appear on the same label, the food can be predominately sugar, despite the fact that the word “sugar” may appear far from the top of the list. With the possible exception of alcohol, sugar has the most potential of causing harm to the body.

Another large category of foods to avoid eating is composed primarily of refined wheat flour or “white flour” as it is often called. Besides obvious items such as white breads, pancakes, rolls, muffins, hamburger buns, English muffins, biscuits, crackers, pretzels, and the usual (non-whole-grain) pastas, this group contains all of the sweetened baked products listed earlier.

While you’re reading labels, don’t be fooled by the phrase “enriched flour.” Of the more than twenty vitamins, minerals, and essential amino acids removed as wheat is transformed into white flour, only four are added back. These are vitamin B1, vitamin B2, niacin and iron. Wheat is stripped of many essential nutrients in the refining process.

Many preservatives create a problem as well. There is a carcinogenic potential of the nitrites and nitrates present in bacon, ham, all kinds of pre-sliced and packaged sandwich meats, corned beef, canned luncheon meats, salami, bologna, most frankfurters, liverwurst, smoked fish, and other processed meats and meat products. Because labels can be difficult to understand, if you notice “sodium nitrate,” “sodium nitrite,” “artificial color,” “artificial flavorings,” or similar wording, try to avoid the food product.

CONCLUSION: Diet & Supplementation – Keys to Optimal Health!

Many of us have bodies that are nutritionally depleted because of years of neglect or from the lack of superior food. We can remedy this condition by improving the quality and kinds of foods we eat, and by including in our diet a good quality vitamin/mineral supplement.

We live in an age where much of the nutritional value of our food is lost, due to transporting, processing, and preparing con-

ditions. In addition, our lives are filled with mental and emotional stresses not experienced by our ancestors even a hundred years ago. Today, if optimal health is one of our goals, even if we follow an optimal diet, a high quality vitamin-mineral supplement is no longer an option. It is an essential addition to our meals. By following these two keys to good health – an optimal diet, and vitamin/mineral supplementation – we can unlock the door to a more energetic and enjoyable life.

Credits

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