



**DON'T DIET:  
CHANGE YOUR HABITS**

**PROPER EATING FOR  
GOOD HEALTH**

**H. HOOSHMAND, M.D.  
ERIC M. PHILLIPS**

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Eric M. Phillips**

## COPYRIGHT

### **Don't Diet: Change Your Habits – Proper Eating for Good Health**

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Other books published by authors:

Doctor Hooshang Hooshmand

- Chronic Pain-Reflex Sympathetic Dystrophy: Prevention and Management (1993).

Eric M. Phillips

- Complex Regional Pain Syndrome (CRPS): Patients' Perspective of Living in Chronic Pain Volume 1 (2020).

## IN MEMORIAM



Doctor Hooshang Hooshmand  
1934-2019

Doctor Hooshang Hooshmand, dedicated his life to medicine (Neurology), teaching, and caring for his patients for over 40-years.

He had a special interest in the management of Reflex Sympathetic Dystrophy (RSD), and other neurological conditions such as Multiple Sclerosis (MS), Epilepsy, and Electrical Injuries.

He had such a grand passion for writing on many medical topics like RSD, Cerebrospinal Fluid Pressure, Topographic Brain Mapping, Electrical Injuries, Thermography, and including this book on Diet.

He made many landmark contributions to medicine over his 40-year career.

- First to use Klonopin (clonazepam) for treatment of epilepsy in the United States. (1968-1973).
- First to report beneficial effects of Adrenocorticotrophic hormone (ACTH) in stimulation of endorphines for treatment of chronic pain (1987).
- First to standardize technical requirements of topographic brain mapping (1987 and 1989).
- First to report the CNS damage of electrical injuries diagnosed by evoked potentials (1989).
- First to recommend treatment of neurosyphilis with mega-doses (over 20 million u) Penicillin (1972): later adopted by the World Health Organization in 1972.
- First to report mechanism of action of Decadron (dexamethasone) in treatment of increased intracranial pressure (1969).
- First Textbook on Reflex Sympathetic Dystrophy (RSD) (1993).

He had a great philosophy and understanding of medicine. He was ahead of his time and always looked outside of the box with his approach to treating such conditions as RSD-CRPS.

His philosophy on treating RSD-CRPS was to approach it in a multidisciplinary fashion with the use of proper non-addictive medications, proper nerve blocks, proper physical therapy, having a proper diet, and to avoid unnecessary surgeries.

He was a great advocate for his patients. He truly loved helping his patients to receive the proper treatment and care that they needed. He always tried giving them a better quality of life from the pain they were suffering. He always treated his patients with compassion and with the utmost respect.

He had so much compassion for life, medicine, and helping his patients. If a patient could not afford treatment or a test that they needed to help with a diagnosis, he would treat the patient free of charge. Treating a patient for free in this day and age is unheard of. This was how Doctor Hooshmand was. He was so generous with his time, with his willingness to help others, and sharing his vast knowledge of medicine. He was absolutely remarkable in the way he wanted to help others.

One of my favorite Doctor Hooshmand lines he would say to people (mostly doctors) who were attending his RSD lectures was. "Do you know the difference between God and a Doctor? The answer: God does not think he is a doctor, but most doctors think they are God's." The first time I heard him say this was in front of a group of doctors. It blew my mind that he said this in front of these doctors. To be honest, he was 100% right in what he was saying.

I have been so fortunate to have known and worked with Doctor Hooshmand for over 25-years. He was the greatest mentor and friend anyone could ever ask for. I thank him for sharing his knowledge with me and the world.

He has now left us for his next journey in life, but he has left a lasting impression on so many of us that we can never repay him.

His life's work through his research and his writings will help many people for generations to come.

I am saddened that Doctor Hoosh (as I would call him) is unable to see the completion of this book, but I know he would be proud that it is finally finished.

Eric M. Phillips



Dr. Hooshmand and Eric at an RSD Lecture in Brockton, Massachusetts. September 23, 1995

## ABOUT THE AUTHORS

**Hooshang Hooshmand, M.D.** (Deceased) practice intractable neurology for over 40-years in Vero Beach, Florida. He specialized in the management of intractable pain with a special interest in the management of complications of reflex sympathetic dystrophy (RSD) / complex regional pain syndrome (CRPS), electrical injuries, intractable epilepsy, and multiple sclerosis.

He had his training in neurosurgery and neurology at the Mayo Clinic. He was a professor of neurology at the Medical College of Virginia for eight years.

He has published over 100 scientific papers and six chapters of books on the subject of neurology. In 1993, he wrote a book titled Chronic Pain-Reflex Sympathetic Dystrophy: Prevention and Management.

He had a passionate interest in research in the fields of RSD-CRPS, neuroinflammation, avascular necrosis, intractable complications of demyelinating disease, and intractable seizures.

During his years of treating RSD patients, he placed considerable emphasis on using a multidisciplinary, and comprehensive approach to treatment with analgesic antidepressants, proper anticonvulsants such as Tegretol, Klonopin, and Neurontin, and the treatment of neuroinflammation with the uses of I.V. Mannitol, Immunoglobulin, and proper nerve blocks with far less emphasis on ganglion nerve blocks.

His pioneering works in the diagnosis and management of electrical injuries, management of neurosyphilis, application of clonazepam in intractable seizures, and the application of ACTH in the treatment of chronic pain are some of his original contributions.

His interest in the subject of complex chronic pain of RSD dates back to his experience with RSD and sympathectomy as early as his neurosurgery training at the Mayo Clinic from 1961-1965. He was a firm believer in preventive medicine and avoidance of surgery.

He is the recipient of research awards by the American Congress of Neurology as well as the AMA.

He was the teacher of the year in 1970-1971, 1971-1972, and 1973-1974 at the Medical College of Virginia.

Dr. Hooshmand's treatment principles consisted of detoxification from opioid agonists, endo BZ agonists and harmful antidepressants. The role of physical therapy, corrections of eating habits, and management of limbic system dysfunction secondary to chronic painful illness are emphasized.

His passion for teaching is reflected in his writings.

Doctor Hooshmand and his wife, Clara, have been enriched with three daughters and five lovely grandchildren.

**Eric M. Phillips** is the President and Founder of the International RSD Foundation in North Dighton, MA.

He has been an advocate for RSD-CRPS patients for over 31-years to help educate RSD-CRPS patients worldwide.

Eric and Doctor Hooshmand have written and co-authored more than 20 medical articles and abstracts related to reflex sympathetic dystrophy (RSD) / complex regional pain syndrome (CRPS). In January 2020, he co-authored a book titled Complex Regional Pain Syndrome (CRPS): Patients' Perspective of Living in Chronic Pain Volume 1.

He has also designed and is the webmaster of [www.rsdrx.com](http://www.rsdrx.com) and [www.rsinfo.com](http://www.rsinfo.com).

In 1997 he received the Canadian Reflex Sympathetic Dystrophy Association Certificate in recognition for helping others who suffer from Reflex Sympathetic Dystrophy (RSD).

In 1999, he was the recipient of the RSD Humanitarian Award from the RSD New England Coalition.

His passion is to help patients who suffer from the chronic pain of RSD-CRPS.

Eric and his wife, Mercedes, are blessed with her three children and her grandson.

## **PREFACE**

For decades there have been countless fad diets promoting weight loss and better health. A majority of these fad diets give false hope of losing weight. For years, my patients would ask me what they can do to lose weight and stay healthy.

We have authored this book to inform my patients with reflex sympathetic dystrophy (RSD) to avoid using any fad diets. We tell them that changing their eating habits is a healthier alternative than the so-called fad diet or diet pills that claim to help with weight loss.

This book emphasizes the importance of changing one's eating habits to gain a better quality of life. This diet is not solely for our chronic pain patients; anyone who wants to revise their eating habits to help maintain a more active lifestyle can use it.

We hope this book will provide some beneficial information to our readers.

Doctor Hooshmand and Eric M. Phillips



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## INTRODUCTION

Doctor Hooshmand and I started this book project about diet at the beginning of the 21<sup>st</sup> Century on January 26, 2000, hoping it would assist his patients suffering from reflex sympathetic dystrophy (RSD). I am saddened that Doctor Hooshmand is no longer with us to see the completion of this book he worked so hard and diligently on. I felt compelled to finish this book on his behalf.

At the beginning of writing this book, Doctor Hooshmand believed that we were leaving behind at least 20-years of real and measurable regression, instead of progress, in the field of medicine. Increasingly, the advances in medicine take the form of quick fixes, a band-aid, temporary treatments, unnecessary surgical procedures, and especially-strong habituating narcotics and tranquilizers. Today, the medical trend is to abandon and laugh at any appropriate precautions, whether it is to promote proper diet, avoid bed rest, or refute the false benefits of alcohol.

Nowhere in medicine is this regressive and unscientific trend as obvious as in the medical quick fixes for obesity and hypertension. In the past, 30-years, there have been dozens of toxic medications introduced to the market to curb the body's healthy appetite demands. Practically, every weight control pill is toxic to the liver and causes harm to the brain. It only provides a few weeks or months of weight loss to be compensated by the body's hormones with the individual ending up fatter six to nine months later. In the process, the temporary malnutrition and starvation cause damage and dysfunction in the form of aging as well as neuropsychological deterioration.

Long-term use of these medications contributes to hypertension, depression, irritability, and agitation, and the destruction of the organs in the body. The cholesterol reducing pills has a tendency to permanently damage the liver-function. This damage becomes further augmented by the simultaneous intake of alcohol "in moderation" which further contributes to fatty liver and further exaggerates the toxic effect of cholesterol pills.

Simultaneously, due to improvement in eating habits (no thanks to medical doctors), the advent of new antibiotics that prevent damage and oxidation by bacteria, and a general trend in lower consumption of alcohol (among the elderly but not among the youth) have all contributed to longevity. If there have been any advances in medicine, it has not been initiated and advocated primarily by physicians, but by a general increase in the people's knowledge by doing their own homework.

Another factor in improving the quality of life and longevity has been the animal research studies done mainly by pharmaceutical companies especially regarding obesity, hypertension, and immunology.

These studies have shown that laboratory rats and mice add 50% to their lives by simply rationing their food intake by 50%. Such a simple measure to increase life expectancy is not advocated by the physicians. Also, the research has shown that both human beings and animals by simply adding healthy aerobic exercise of no more than three times a week further extend their good health and life expectancy.

It is the biologists and research scientists who have proven these points, but it is such lessons are not usually heeded or taught. The medical schools concentrate almost exclusively on chasing the disease, chasing the pain, and chasing the obesity with drugs rather than with preventive medicine.

There has been quite an encouraging rise in the number of living centenarians. The death rates reach a peak among people in their early 80s and then decline. An average 85-year-old is more likely to die within the next year than an average 100-year-old. Biologically, there shall be a gradual increase in longevity in the future. A recent World Health Organization report shows the number of centenarians has exceeded 100,000.

Another advance has been in the genetics field. We are not talking about the good old dominant and recessive defective genes that cause rare familial diseases. We are not talking about rare genetic diseases like muscular dystrophy, Tay Sachs, or Huntington Chorea, etc. We are talking about ontogenesis.

This refers to the manipulation of the existing genes in a positive or a negative fashion by eating habits or drugs (such as alcohol, cocaine, etc.). The ontogenetic manipulation is vital in early the formative years of life, especially before three years of age.

A perfectly normal newborn with no genetic disturbance will be at the mercy of the environment-especially parents and their destructive dieting habits. In the childhood formative years, the genes are influenced by environmental changes and by the influence of foods and drugs. The changes may be positive or negative. The negative changes would be influencing and accelerating oxidation, and free radical formation, and death of cells.

In 1993, we devised the Neurological Associates Four-F's Diet (4-F's) (1). This method of behavior modification is not aimed at losing or gaining weight. This diet also emphasizes the intake of foods that help the inhibitory nerve cells that suppress the pain input (Four-F's: Fresh fruit, fresh vegetables, fish, and fowl) (1).

It excludes foods that are harmful to your health and aggravate chronic pain (i.e., Five-C's (5-C's): cookies, cakes, chocolate, cocktails, and candy) (1). Other foods to avoid are internal organ meats like liver, sausage, and hot dogs.

By doing so, the patient's weight normalizes itself automatically: overweight or underweight extremes normalize near the patient's ideal weight (1).

This diet was devised to help patients who came to our pain clinic suffering from the chronic pain of a disease called reflex sympathetic dystrophy (RSD), more recently known as complex regional pain syndrome (CRPS). This diet is also helpful for others who are in good health but want to live a healthy lifestyle.

The Four-F's diet is a useful guide to help people get on a healthy track to eating and living healthy.

The dangerous diet books, usually written by physicians, are doing more harm than good. In this book, we have outlined the importance of proper eating, eating natural foods, and staying away from harmful diets.

## SUMMARY

If you want to improve, you're eating habits for the purpose of managing any illness, or correct a weight problem, recognize the following rules:

1. **Exercise.** Even if you are wheelchair-bound, you need aerobic exercise to lose weight and to stay alive.
2. **Exclude stimulants and harmful drugs in your diet:** chocolate, hot dogs, any meat from the internal organs like kielbasa, sausage, bacon, etc.; any red meat more than once a week.
3. **Don't skip meals.** Eat three meals and a snack at bedtime. The snack should contain vegetables or fruits, and low-fat dairy products. Do not go to bed hungry. Eat four to five times a day: small servings; vegetable and high fiber foods (salad, etc.).
4. **Take your time.** Develop a ritual of chewing a lot, and eating slowly and drink a lot of water.
5. **Limit your food to the 4-F's:** Fresh fruit, fresh vegetable, fish, fowl, and low-fat dairy products (1).
6. **Exclude 5-C's:** Candy, cookies, chocolate, cake, and cocktail) (1).
7. **Alcohol** is harmful if you are ill or have a weight problem. It is damaging, caustic, and provides false calories with no nutritional value. Minimizing the intake of rice, potato, and pasta is helpful.
8. **Exclude fat**, especially steak, hamburger, French fries, vegetable oil, mayonnaise, butter, margarine, and some nuts. Almonds are not fattening. Macadamia nuts, peanuts, and pistachio nuts are. Limit the exposure to fat to a minimal amount of olive oil or sunflower oil for cooking. Fats should consist of 20% to a maximum of 25% of the total daily caloric intake. Many foods contain fat. Exclude butter. Foods rich in crystalline sugar is a major source of fat: by changing to triglycerides.
9. **Reduce the intake of red meat** to an absolute minimum (thus reducing the oxidant effect of iron; reducing the stimulant effect of Tyrosine, and cutting down on animal fat and low-density cholesterol. Ideally, no ground beef, no steak and absolutely no liver, sausage, or bacon. High protein diets (e.g., "Atkins" or "Mayo Clinic," diets) are rich in uric acid (causing gout) and low-density cholesterol.
10. **Shellfish is nutritious.** It prevents wrinkling and aging of the skin (in contrast to alcohol and cigarette). Shellfish raises the high-density lipid (HDL) level of blood proportionately reducing low density (LDL) level of blood. Avoid shellfish if you are suffering from hyperthyroidism.
11. **Avoid any leftover** or "doggy bag" food. As the food ages, it undergoes oxidation and degradation. The oxidation and breakdown of the red meat are accelerated by the breakdown (marinating) of the leftover food, releasing free oxygen radical ( $O^+$ ). The free radical attaches to the water content of the food, forming  $H_2O_2$  (hydrogen peroxide) which further damages the contents of the leftover food and the body tissues. Subsequently, the leftover food becomes laden with nitric oxide and other oxidants.

## CHAPTER 1

### WHAT IS WRONG WITH DIETING?

Practically, every diet based on calorie counting, and is tailored for a specific disease such as "diabetic diet," "heart diet," "stroke diet," is improper, imbalanced, and potentially dangerous to your health.

One glaring example is the American Heart Association Diet (AHA Diet) for the National Cholesterol-Lowering Education Program. This diet advocates misleading and dangerous food components. Doctor Walter Willett, MD, Ph.D., Professor of Nutrition at the Harvard Medical School recommends an alternative to the AHA Diet: "in addition to the concern over the diets, saturated fat and cholesterol are the facts that it reduces HDL cholesterol. You've also got partially hydrogenated vegetable oil in the diet." Doctor Willett refers to the margarine included in the diet which is dangerous and is one of the common sources of cholesterol. Raw margarine has practically no cholesterol, as the margarine is heated (cooked) it is practically transformed to almost 90% cholesterol.

Almost every time you open a popular magazine, a new diet purports to help reduce 30-60 pounds of weight in a few months. Unfortunately, even if the patient loses 60 pounds, any such rapid weight loss is compensated for by the brain: The brain considers such weight loss, as life-threatening starvation. After a few weeks or months, the stress of the improper diet is compensated by the hormones secreted by the brain, making up for the lost pounds - and some. In the meantime, any rapid fluctuation of weight is a stressor and causes aging as well as disturbance of the immune system. Unbalanced diets (e.g., all protein, all carbohydrates, etc.) are harmful, provide imbalanced nutrition. Such an improper diet can be destructive to the body and specifically to the brain.

### FAD DIETS

It is rare to find a harmless dietary fad. There are forms of excessive trends such as "all you can eat diet," "all protein diet," "no protein diet," "all carbohydrate diet," "low carbohydrate diet"-the recently popularized popular "zone diet," "American Heart Association Diet"-which is harmful to the heart and other organs (see above), "The Mayo Clinic Diet"-which hopefully is not being advocated by the Mayo Clinic anymore. This was an old diet of the 1940s and 1950s in the form of high egg and protein diet prescribed for athletes, especially boxers.

Even the less harmful diets such as the "vegetarian diet" and "American Diabetic Association Diet" have flaws in them. The vegetarian diet contains only 10% fat, which is not practical and does not provide enough monounsaturated fats to be balanced and healthy. The American Diabetes Association Diet is quite well balanced by 60% carbohydrates, 20% protein, and 20% fat, however, it does not clarify that most man-made carbohydrates (such as cereals) are enriched with crystalline sugar to make it tasty. Other types of dietary fad's, such as the "rice diet," The "Mayo Clinic Diet" (rich in egg and red meat) and the diet for hypoglycemia are harmful and poorly balanced. The hypoglycemia diet is an old-fashioned fad recommending the consumption of any type of sugar and soft drink (be it Pepsi, Coke, or any other conveyor of crystalline sugar) and consumption of a lot of protein. This diet is seriously flawed because the intake of refined sugar drinks, and even salt (such as Gatorade), result in secondary hypoglycemia in a few hours by causing a rapid rise in blood sugar, secondary secretion of insulin, which in the long-run leads to reactive attacks of hypoglycemia. Moreover, a repetitive attack of hypoglycemia is usually the first symptom of diabetes mellitus in evolution.

The chronic intake of soft drinks and alcoholic beverages accelerate and aggravate the eventual development of diabetes. Most diets advocated by purveyors of “diet food” (such as Weight Watchers, Jenny Craig, and Slim Fast, etc..) It may as well be called the “Chocolate diet”

Of the fad diets, the so-called “Atkins New Diet” is quite illogical. This diet advocates a pathologic red meat Hedonism. Doctor Atkins is a cardiologist, he should know better than prescribing steak, bacon, ham, butter, and high-fat salad dressing, for already obese people. I am not a cardiologist, but as a neurologist, I am very concerned that the junk “foods” are conducive to the development of cerebral hemorrhage, and high mortality. Purportedly a few weeks of the Cheese Danish, coffee, pastrami, beef, pork, lamb, bacon, and venison is supposed to help you lose weight and stay that way. The diet advocates “in fact, all meat.” Advocating bacon, venison, or beef is not good advice for people with blood vessels clogged with cholesterol, neither for people with a tendency for gout. Atkins realizes the food imbalance. To correct it, he prescribes vitamins. Vitamins are not food. They cannot make up for the clogging of blood vessels, high blood pressure, and accelerated aging due to the intake of “junk food.”

It is not clear how the shock and stress of an unbalanced diet can correct the old-fashioned bad eating habits. The above diet is too unbalanced, too unhealthy, and is loaded with cholesterol, uric acid, and tyrosine in red meat and aged cheese. The tyrosine is the precursor of epinephrine (adrenaline) which is conducive to hypertension, eventual heart attack, and stroke.

In the Atkins diet, the type of excessive red meat rich in animal fat can precipitate gout, cerebral stroke, and nutritional neuropathy.

The so-called “Zone Diet”- which refers to the fleeting few seconds or minutes of a “high” feeling in athletics, achieved by manipulating fatty acids by dieting encourages the addition of fats (such as mayonnaise to the daily diet. In our daily intake of food, we are already exposed to plenty of fat- some healthy such as olive oil-some unhealthy such as vegetable oils. There is no need to take supplemental fat. Only Eskimos may need lard or butter. The fat in seafood and the fat in some nuts is enough sources of daily fat intake. The “Zone” prescribes the dietary intake into three almost equal portions of 30% fat, 30% protein, and 40% carbohydrates. The high percentage of protein is compensated for by sacrificing the intake of enough fruits. It is erroneous and nonscientific to bunch together the 5-C’s crystalline sugar foods (candy, cookie, cake, chocolate, and cocktail) bundling them with natural fruits, vegetables, or pasta and breads (1). The fructose in fruits and vegetables provides a relatively steady-state blood sugar level. This is in contrast to the sucrose in candy, cookie, cake, chocolate, and cocktail, which cause harsh fluctuations of blood sugar due to the stimulation of insulin forcing the blood sugar downward and adrenaline pushing it upward. This Yo-Yo effect can result in diabetes by simply exhausting the insulin formation by the pancreas. Sacrificing carbohydrates in the form of dietary fiber, especially cabbage, broccoli, cucumber, watermelon (an excellent diuretic) and natural cereals, deprives the heart of the protective effect of dietary fiber against coronary heart disease (2).

Then there are diet gimmick businesses, such as Weight Watchers, Slim-Fast, and other similar quick fixes. The common denomination in these diets is rewarding the obese victim with a drug called sugar and chocolate. These diets are quite popular because the majority of obese patients are chocoholics. To begin with, they would rather eat chocolate than natural, nutritious, healthy food. For example, the “Weight Watchers” diet allows the patient to eat one-twelfth of a nine-inch cake (which equals to be a three-inch square) of a chocolate layer cake topped with icing. Each serving counts for so many “points” (the heavier body weight, the higher the points). The patient has to cut down the intake of nutritious food to make up for the consumed points. If the patient gets carried away and eats too much cake, then the patient is not allowed to eat the proper foods for that day. The patient can take vitamins, but vitamins are not food.



This system leads to a vicious circle. The more-false cake calories, the more the patient sacrifices the healthy food.

## **CALORIE COUNTING AND BALANCING THE DIET**

Any diet that relies on weighing the foods, using calorie tables, and measuring a certain percentage of fat vs. Protein vs. Carbohydrate, which is too tedious, too impractical, and too artificial. It takes away all the pleasures of eating - which is as important as any other pleasure. Then, what should one do?

- Try not to eat alone. Enjoy the company of a dear friend or a loved one. Allocate at least one hour for each meal. The French take lunch breaks as long as two to three hours.
- Eat 4-F's (Fresh fruit, Fresh vegetables, Fish, and Fowl). Avoid 5-C's (Candy, Cookies, Chocolate, Cake, and Cocktail).
- Eat slowly. Ideally, start with a salad. Eat one piece at a time. The cerebral hunger instinct is most powerful in the first 20-minutes of eating. If you eat fast and consume over 1,000 calories in the first 10-minutes, the brain demands another 10-minutes of food consumption. If you slow down and eat 200-300 calories in the first 20-minutes, then you won't be driven by a voracious appetite. The rest of the meal will be relaxed and you will eat the amount you wish-rather than your animalistic instinct.
- Try to leave one-quarter of your meal on the plate. You will live longer and healthier.
- Avoid bleached bread, white rice, butter, whip cream, mayonnaise, and a large serving of bread. Replace them with multigrain bread (small amount-no more than one slice a day without butter).
- Engage in exercise at least four times a week.

## **ENERGY DENSITY**

Weighing the content of a food serving should not be mistaken for its calorie density (energy density). This proves the futility of measuring food weight. For example, one ounce of butter generates more than two times the energy (calories) as compared to one ounce of sugar, the extra calories in the butter force the non-utilized energy to be stored in the fat from under the skin of the abdominal wall. Another example is the comparison of an equal weight of wine and beer. Beer carries not only high-energy-density of alcohol, but also the high-energy-density of maltose in the beer.

The fruits with high water content and vegetables with high bulk and water content contain very low-energy-density volume and bulk. Eating cucumber, lettuce, and cabbage provide bulk and water density - contributing to the meltdown of body fat to compensate for low calories in such vegetables.

Try to eat as much fiber as possible to counteract obesity, and to prevent cancer.

## CHAPTER 2

### CHOLESTEROL, FADS, AND FACTS

There is an undue preoccupation with cholesterol. Cholesterol is a normal, needed chemical (Table 1). The high-density lipid (HDL) cholesterol is essential for life. It is the framework for the soft tissues in the body. Theoretically, extracting the HDL (The “good cholesterol”) would result in the body's soft tissues hanging down like melted candle wax - resulting in wrinkle skin such as seen in a 100-year-old person.

The low-density lipid (LDL) cholesterol (The “bad cholesterol”) is mainly present in red meat and animal skin, in monkeys and humans, and to a lesser degree, in lower forms of animals, the LDL results in the formation of plaques and clogging of blood in circulation, resulting in stroke and heart attack. Distress, excessive drinking, inactivity, and obesity result in elevation of serum LDL and reduction of HDL. Exercise, seafood diet, and estrogen in females elevate the HDL and reduce the LDL level in the blood, thus protecting against vascular disease (stroke and heart attack).

The confusing facts have resulted in misunderstandings and misconceptions regarding cholesterol. For example, people have mistakenly avoided the intake of shellfish, which is protective against vascular disease and cancer (high in HDL and Omega-3).

The belief that "high protein diet is needed for muscles" has resulted in the consumption of large doses of dangerous proteins, such as tyrosine and phenylalanine which result in kidney disease and hypertension. The high protein diet is also accompanied by high LDL as well as high triglycerides in the food.

The present trend in medical practice is ignoring prevention and trying to fix the disease with pills, surgery, or psychiatric treatment. The high cholesterol, blood level is usually treated with medications tailored to reduce cholesterol. Such medications are invariably damaging and harsh to the liver.

High LDL cholesterol is usually seen in obese individuals who already suffer from a fatty liver due to “moderate drinking.” The cholesterol-reducing drugs are more harmful to fatty liver. The belief that having "two drinks a day is good for your health" has legitimized drinking and has been harmful especially to the youth. There is no nutrition in alcohol and the body is better off without it. The fact remains that our present-day diet is far from ideal. We are the richest and the fattest nation in the world.

Cholesterol is only one factor in the risk of vascular diseases. High levels of iron in the blood (due to a high intake of red meat), as well as toxic stimulation of bone marrow by cigarettes and alcohol, along with triglycerides (5-C's: candy, cookies, chocolate, cake, and cocktail), are important risk factors.

## CHOLESTEROL REDUCING DRUGS

Stay away from cholesterol-reducing drugs. These drugs cause the disturbance of food absorption, and toxic liver disease. Realizing that a high percentage of patients suffering from high LDL cholesterol also suffer from a fatty liver (because of longstanding obesity and alcohol intake), they cannot afford the toxic effects of cholesterol-reducing drugs.

The only drugs that are riskier than cholesterol-reducing drugs are diet pills.

The artificial fat called Olestra contains no calories. For that matter, Arsenic contains no calories. Olestra blocks off the absorption of fat-soluble vitamins and carcinoids. The blockage of vitamins A and E has serious consequences of poor cerebral function, memory loss, fatigue, fragile tissues, poor vision, etc. The addition of Olestra to potato chips, cookies, and cheese curls, cause a double exposure to toxic chemicals and false calories.

**TABLE 1. CHOLESTEROL CONCENTRATION IN FOOD**

*(Daily requirement = 300mg)*

	FOOD	CHOLESTEROL TYPE	
<b>High</b>	Kielbasa (3 oz)	over 400mg	LDL * (causes stroke & heart attack)
	Liver (3 oz)	375mg	LDL and HDL
	Steak	350mg	LDL
<b>Medium</b>	Butter (1 oz)	135mg	LDL
	Egg	250mg	mostly LDL
	Scallops	120mg	HDL* (*protects against heart attacks and stroke)
	Sardine	120mg	HDL
	Shrimp	128mg	HDL
<b>Low</b>	Mild cheddar cheese	28mg	LDL, HDL(1oz)
	Cream cheese (1 oz)	31mg	LDL
	Fish (3 oz)	80mg	HDL*
	Lobster	70mg	HDL*
<b>Very Low</b>	Mussels	60mg	HDL*
	Buttermilk (1 glass)	5mg	low LDL
	Cottage cheese (1 oz)	12mg	low LDL
	Skim milk	5mg	low LDL
	Yogurt (6 oz)	17mg	low LDL

\*HDL= High Density Lipid- or “the good cholesterol.” It provides the framework for smooth and un wrinkled skin. Absence of HDL causes severe wrinkles and aging of skin, similar to a melted candle.

LDL= Low Density Lipid- It is a liquid gold - color cholesterol crystal floating in blood circulation. The crystals are sharp, damaging the wall of blood vessels, and causing “cholesterol plaques” which lead to stroke or heart attack.

## **MODERN TRENDS**

A study in JAMA showed that even though the youth are naturally blessed with a rich hormonal system and strong healing power, the risk behaviors for chronic disease are common among adolescents (3). This is due to the epidemic (over 83% of high school seniors) heavy alcohol intake, cigarette smoking, sedentary lifestyle, insufficient consumption of fruits and vegetables, and excessive consumption of fatty foods. In Russia, this problem is a much worse epidemic. Binge drinking is the commonest form of relaxation and “recreation” in college students. The same teenager and college students are at the peak of their recreation. They drink and reproduce. Even after two consenting adults form a “pickled fetus” due to intoxicated sperm and ovum, the mother continues drinking during pregnancy because she is told by her doctor that “red wine is good for you.” The end-result is a Fetal alcohol effect (FAE) and Fetal alcohol syndrome (FAS).

The same FAS is a major contributor to childhood conduct disorder (CCD), attention deficit hyperactive disorder (ADHD), leading to adolescent criminal acts (e.g., rape, high school shootings, etc...). As long as the media, doctors, and government advertise wine (a good source of tax money for the government), we are going to have more child-criminals.

## **KETOGENIC DIET**

The dangerous diet called "high protein, Ketogenic" diet. This diet-which has been quite popular and quite harmful-claims that patients can eat a lot of meat, practically no fruit and some vegetables, which causes a reduction of secretion of Insulin and rapid breakdown of the fat with the byproduct of Ketones (ketosis). Ketones are the byproduct of the partial breakdown of fat. One form of it, called acetone, is very toxic and it is used as a strong solvent in the paint industry. Ketosis refers to the accumulation of toxins called ketones in the blood. The ketosis leads to lipolysis meaning that the fat is broken down with the byproduct of ketones. This is not a new diet; it has been around for decades. In neurology, this diet was tried three to four decades ago for the treatment of uncontrollable epileptic children when they were on their death bed because no anticonvulsant would control the seizure disorder. In that situation, the ketosis would partially control the seizure, but would also cause a lot of metabolic disorder and breakdown of fatty tissues in the child. This diet cannot be tolerated for more than a few weeks up to two to three months. This diet should not be used anymore. The newer anticonvulsants make it unnecessary. It is a cruel diet. It makes the individual sick. The refrigerator door has to be practically locked. Otherwise the child or adult develops such a strong starvation instinct that he or she is apt to even sleepwalk, raid the refrigerator, and eat the natural foods to stop the poisonous deterioration of the fatty tissues in the body. This diet is incompatible with normal health and normal living.

Any diet that punishes the individual so severely is apt to fail. The natural instincts, and the protective function of the neuroendocrine system, eventually compensate for the poisonous diet, such as “Ketogenic diet,” “all Protein diet,” etc.

Food is supposed to be a pleasure, equal to having good sex, and good exercise. It is nonsensical to punish the body by causing toxic byproducts of fat (ketones or ketosis). Amazingly, practically every book store carries several volumes of the books advocating “high protein,” “low carbohydrate,” “high ketone,” diets etc.... Exposing the reader to imbalance and harmful diets.

The reason the above-mentioned fad diets are harmful to your health is because the quality of the food is not taken into consideration. Simply exchanging calories for the percentage of each of the three food sectors (carbohydrate, fat, and protein), is quite dangerous. For example, alcohol is considered carbohydrate. Crystalline sugar is considered carbohydrate. These two carbohydrates are quite harmful in contrast to carbohydrates such as bread, pasta, vegetables, and fresh fruits.

The main principle of proper eating habits should be to provide most all the calories by the intake of natural foods (i.e., fruits, vegetables, rice, and potato) in a balanced form without resorting to excessive trends such as a "no carbohydrate diet" or "all protein diet."

Realizing that most of the food that we buy from the grocery stores contain sugar, salt, and fat, and realizing that it takes discipline to limit the intake of fat and to replace it with monounsaturated fats (such as olive oil, canola oil, or avocado and macadamia nuts), it is dangerous to espouse a high fat diet even if the percentage of the high-fat diet is no more than 30% fat (such as the so-called "zone diet"). All fats are not equal (Table 1 and 2).

To emphasize the improper principle of considering calories as number and quantity rather than paying attention to the quality, I jokingly tell my patients that they can go on a "vegetarian" diet by eating "French fries and onion rings." Both potato and onion rings are a carbohydrate type of calorie, but in each serving of French fries or onion rings, the carbohydrates are minuscule and lost in an ocean of saturated fat. According to the FDA (1999), French fries comprise of almost one-third "vegetable" carbohydrate intake of children and teenagers. Unfortunately, French fries are misnomers: The French don't eat the type of fried potato we eat. Our "French fries" are nothing but conveyors of fat.

Then there is the so-called "Macronutrients diet." This diet relies on measuring rare metals and other chemicals in the blood and trying to "correct" the "deficits." Macronutrients are indeed essential (for example, long-standing tube feeding causes malnutrition). However, depriving the patient of some chemicals and adding other chemicals based on blood tests result assumes that blood tests are capable of providing comprehensive and accurate information regarding proper nutrition. This is a false assumption leading to harmful restrictions in the patient's diet with resultant malnutrition.

Somehow, depriving the patient of dairy products by using the excuse of "Lactose intolerance" is a sin committed at an epidemic rate. "Lactose intolerance" is a reality. I suffer from a severe case of it. Drinking milk makes me sick due to the formation of "Casein." As the milk is exposed to the gastric acid environment, the protein in the milk coagulates which forms a large molecule of protein in the stomach in lactose-intolerant individuals. This large molecule causes nausea and vomiting. However, lactose intolerance does not apply to dairy products such as yogurt, cheese, or buttermilk. In the latter by-products of milk, the protein in the milk has been fermented and metabolizes to small molecules that cannot coagulate and cause nausea.

Obviously "diet experts" and caregivers are not familiar with this principle. They forbid the patient from any dairy product intake. The end-result is osteoporosis and malnutrition.

## **THE MONTIGNAC DIET**

The latest diet from France is Mr. Montignac's diet. He uses a simple trick to attract followers. Make the food more appetizing at any cost. A typical meal, consists of a plate of a slight sausage washed down with a glass of sparkling Saumur, chased by slices of foie Gras in a wine jelly; a whole grilse (salmon) with olive oil, mayonnaise, cheese, crème brulée with raspberries; dark chocolate, and coffee.

He has a simple formula: Exclude glucose, beer, butter, brown sugar, and white bread (some logical and some illogical). In contrast, he considers goose dripping fat to be as healthy as olive oil! At least he is honest to himself: gluttony in the name of "dieting." The above diet is the best example of illogical dieting.

## **EXERCISE**

Before you jump into the next, latest diet fad, consider starting an exercise program and get moving. Exercise is the number one principle and the first step to healthy living. You may have the best dietary habits. It will do you no good unless you start a daily schedule of aerobic exercise (e.g., dancing, a sexual act, running, walking, jogging, tennis, horseback riding, swimming, etc.). The exercise should be intermittent and should be limited to the point of pain. No pain is all gain. It should be strenuous enough to cause sweating.

If you do not increase your rate of aerobic (not isometric) exercise, dietary correction is a waste of time. The isometric exercise (e.g., weight lifting) is not healthy. It helps reduce the fat, but replaces it with excessive muscle bulk, which is loaded with tyrosine-a precursor of norepinephrine-leading to hypertension and cardiac stress. It pumps adrenaline and increases appetite.

## **DIETING**

There is an excessive reliance on the practice of modern medicine by the prescribing of drugs (such as Fen-Fen) and surgery (such as Liposuction) to try to cure obesity. Little, if any, attention is paid to proper eating and food hygiene. We have to realize that there is no difference between drugs and food. The first lesson in toxicology teaches us that the difference between food, drug, and poison is only a matter of dosage and quantity. Any chemical formed in nature, un-tampered by civilized man, can be considered a food, if edible. Any chemical created in a laboratory is most likely a drug than a food. Even the nutrients added to IV fluids, and to nasogastric tubing to supplement nutrition, in the long-run result in malnutrition due to the lack of balanced nutrition, and lack of trace chemicals essential for proper nutrition.

For decades, physicians have ignored, ridiculed, and underestimated the effect of proper nutrition and good dietary habits. The dietary revolution of the past thirty years has drastically reduced the incidence of stroke and heart attack. Only in the past two decades have reputable medical journals allowed the publication of topics based on food as preventive medicine against cancer and heart attack.

The physician prescribes a few milligrams of certain medicines for the patient's illness and considers it a cure. Relatives of the patient, TV hype and Chiropractors convince the patient not to take medicine, while the harmful chemicals in the canned and synthesized food continue to undermine our health.

Even some drugs are classified as "food" by the government, (e.g., beer), are consumed by the patients even while pregnant, placing the unborn child at risk for FAS. The father who drinks may contribute to FAS as well, due to the toxic effect of alcohol on the sperm. In our study of 32 classic cases of FAS children, nine were the offspring of teetotaler mothers and alcoholic fathers (This is known as the "Pickled Sperm Syndrome").

## **CHAPTER 3**

### **DIETARY HABITS AND PLASTICITY**

Two major factors that decide our dietary habits.

- Genetic
- Environmental

The genetic dietary habits force every cat to like seafood, to dislike being sprayed with water, and to dislike fruits and vegetables. Such preferences are imprinted in the DNA of the brain cells and are the ultimate deciding factor in regard to the type of food the animal prefers, if a cat is born in a part of the world that has no access to any type of seafood, the gene adapts itself to the foods that are similar and closer to the seafood. This is the main role of the environment influencing the gene function, and providing the plasticity and adaptation to change the tastes and preferences.

### **PLASTICITY**

The above phenomenon of modifying and influencing the cell's genetic function is in the form of improvement of function, and power of self-healing (plasticity), or conversely, in the form of permanent damage and dysfunction of self-healing (loss of plasticity).

Contrary to the age-old misconception-claiming that the brain stops forming new nerve cells after early infancy-the new research by Princeton University Scientists has proven that at any age brain cells replicate, and migrate to frontal regions of the brain. This shows the power of plasticity and is instrumental in relearning. The neurotoxic agents (foods, alcohol, drugs, etc.) interfere with this power of regeneration. The brain may have been damaged by head injury, toxic agents such as lead or arsenic, carbon monoxide poisoning, or stroke. The brain has a good chance of repairing itself if the head injury is not repeated (such as in boxers or drunk drivers) or the toxic exposure is discovered and avoided - such as in arsenic poisoning. However, if the patient continues drinking, or continues using cocaine or heroin, then the brain loses its plasticity (self-healing).

In children, both the power of plasticity and failure of the same are stronger than adults. A chronically abused child with repeated head injuries, loses the power of memory and judgment in the formative years. On the other hand, early diagnosis and prevention of child abuse help heal the brain injury, and the child ends up rapidly compensate for the brain injury. A crack baby is far less likely to recover due to the incessant toxic effect of crack or cocaine.

Plasticity is not limited to any specific form of cellular genetic functions. The plasticity is influenced and affected by any positive or negative stress in the environment. A child is born with a certain coding of the DNA in their eating habits. If the child is born to a family living in the Benelux countries (Northern European), the genes prefer processed meat such as sausages, kielbasa, and etcetera.

A child born to a Mediterranean family in Southern Italy or Spain will have more of a preference for fruits, vegetables, and complex carbohydrates. If in this contrasting example, the child from the Mediterranean family early in life is adopted by a Benelux country family, the child's genes relatively quickly lose their old genetic preference and develop a new taste for processed meats.

This tendency is quite commonly noted between the first and second generations after World War II, when there was a major emphasis on canned and processed foods (the so-called C-rations).

The second generation of such families shows a strong preference for foods containing crystalline sugar, red meat, chocolate, and fat.

The plasticity for changing and imprinting of the genetic codes is quite instrumental in earlier stages of life (in infancy and early childhood). As a result, the children usually prefer the food the parents like. This type of influence is even more important in prenatal, or fetal, stage of life. There is no difference between food versus alcohol, or cocaine influencing the fetus. After all, the intake of chocolate, which contains phenylethylamine, a chemical almost identical to cocaine (both chemicals originating from the cocoa tree) leaves the same type of influence on the unborn child's brain and its plasticity as the cocaine does. Alcohol is even more potent. It not only can influence the genes of the fetal brain, but also can deform, destroy, and kill the genes resulting in the death of the nerve cells. FAE and FAS are the common causes of retardation, birth defects, ADHD, and CCD.

Whatever extra harm the fetal alcohol effect has not achieved, the parent will make up for it by bringing the child up with a high sugar diet, and a diet rich in hot dogs, liver, sausage, and French fries. Hot dogs destroy the protective function of the genes against cancer. According to the Journal of Science, children who eat more than four hot dogs a week have a five times higher risk of dying from brain cancer.

The child, very early in life, learns to share the parents' selective likings and hatreds. Racism, as well as loving or hating certain foods, are imprinted in the innocent child's brain-usually indefinitely.

A three-year-old child walking with her mother in the grocery store pulls the mother's skirt and tries to attract her attention to buy watermelon-or grapes. Instead, the mother buys the child watermelon or grape-flavored candies. In this process, she is conditioning and teaching the child to dislike fresh fruits.

My wife and I have five grandchildren that have been the best gifts handed to us by our daughters. Every time a grandchild suffered from diarrhea; my daughters would call asking for some kind of antibiotic for diarrhea. I would advise them to feed the child yogurt or buttermilk. It worked much better than any antibiotic by providing lactobacillus in the guts destroying the putrefying bacteria. The child would quickly recover. Every one of my five grandchildren are practically addicted to buttermilk and yogurt. Their classmate's gag when they hear the word buttermilk or yogurt. When I tell other parents to try the yogurt or buttermilk for their sick child, they prefer to take lactobacillus powder or tablets. Interestingly, the lactobacillus powder or tablets don't work the same way as vitamins A and D tablets don't work as well as the natural vitamins D and E contained in the fruits and vegetables. It is not clear why man-made chemicals don't do the same job as the natural ones.



One example is the natural female hormone extracted from the pregnant mare urine (Premarin) versus the synthetic estrogen. The natural Premarin is far more effective than the synthetic estrogen in patients suffering from the stress of chronic pain. The female hormone enhances the immune system and enhances healing. In intractable pain patients, such as complex regional pain syndrome (CRPS) (RSD), even 20-year-old females develop hot flashes and extremity edema. Treatment with Premarin is far more effective than synthetic estrogen to eradicate the edema and hot flashes.

One can compare the difference between natural and man-made vitamins and chemicals to the difference between brand-name versus generic drugs. Whereas, most generic drugs are similar to the brand-name drugs, some act completely different regardless of how accurately the brand name chemical structure is copied. One such example is Tegretol versus its brand-name Carbamazepine. The brand-name Tegretol is a potent and effective anticonvulsant.

On the other hand, the generic Carbamazepine is not even half as effective. A similar phenomenon is noted with medications such as Klonopin and its brand-name Clonazepam, Proventil versus its brand-name Albuterol and Persantine and its brand-name Dipyridamole.

Getting back to the subject of food, I cannot imagine how a generic fruit or vegetable developed in the laboratory can be the same as the natural fruits and vegetables.

Six years ago, the researchers in one of the chemical laboratories in Japan decided to reproduce a very expensive French white wine. They matched the chemical compositions, the pH, the alcohol concentration, and the chemical pattern of the solvent of the wine.

They used computer technology to simulate aging. They even used the polymerase chain reaction (PCR) technique to copy and to clone the chemical structures.

The result was predictable. What they ended up with was a liquid tasting somewhere between vinegar and alcohol, but not at all tolerated by the human taste buds.

Our genes are coded by the memory of several millennia of the natural tasting, natural food. They cannot be fooled by synthetic man-made food. However, the genetic coding can be influenced early in life and the plasticity can be disturbed to the point that the DNA cannot adapt to a change of food or taste. This lack of power of plasticity and recovery plays a major role in incurable diseases such as alcoholism and other kinds of addiction. The same disturbance of plasticity also plays a major role in the development of immune system failure.

The best example of it is the foods that predispose the DNA to lose its plasticity and to become susceptible to cancer. The best examples of such so-called "foods" are alcohol, hot dog, sausage, liver, and coloring agents (agent yellow, agent red, etc.).

The most important and critical determinant of individual weight and longevity is the influence of eating habits in the early formative stages of life-before birth and after birth. Alcoholism is not so much genetic as it is ontogenetic meaning that the mother may be blessed with the best of genes, but if she drinks while pregnant, the alcohol effects and destroys the power of plasticity of the originally normal fetal gene.

In neurology, the first six years of life are recognized as the best formative epoch of life when the child is blessed with excellent healing power. This healing power can be negatively affected by an improper diet. Such a negative influence becomes a lifetime habit.

We should not bring up our children to learn to eat as we have been taught by our parents. The children genetically and naturally are far smarter than parents. They can teach a thing or two to the parents. For several decades, they have taught the parents to hate the taste of liver, to no avail. When the child first tastes an alcoholic drink, they either vomit or become extremely nauseated due to the extremely bitter taste of alcohol in their mouth. The child is taught to grin and bear it and to get "hooked to it." We should not teach our children to eat like a cow, chewing only fruits and vegetables or like a pig, craving red meat. Worst of all, they should not be taught to just have an anhedonia diet (nothing hedonistic-referring to the fact that a hedonistic person enjoys several effects of instinctual pleasure rather than being limited to one pleasure) The most glaring example of an anhedonia addict is the red meat, potato, and beer addict. If we were brought up with such addictions, we should not teach our children the same. We tend to scare the life of children regarding crack, cocaine, or marijuana. It is the proper thing to do to scare the child in this regard. The child should also learn that alcohol is as dangerous if not more dangerous. He should learn that red meat also can be harmful. The heart muscle can be all clogged up with the low-density cholesterol in red meat, the kidneys can be strained in the process of getting rid of the excessive proteins, and the brain can be intoxicated and excited resulting in agitation and violence. One of the best ways to make a normal adult violent is to feed them red meat and alcohol, year in and year out. Alcohol raises the level of dopamine and destroys the inhibitory nerve cells in the frontal lobe. Red meat provides the tyrosine, which is a precursor of adrenaline.

The individual becomes uninhibited, violent, and may not think twice about killing or raping somebody. On the other extreme, there are crazy vegetarian diets that deprive the individual of the proper monounsaturated fat. The vegetarians are taught to be scared of dairy products for the fear of "yeast infection." The so-called yeast-free diet excludes every form of dairy products. A child on such an imbalanced diet is deprived of the proper calcium, tryptophan (the precursor of serotonin), as well as essential proteins in the dairy products. Then the child grows up to have to take calcium pills which are not natural and cannot be utilized properly by the body; the child ends up taking iron pills which are oxidants and damaging to the health and can develop a susceptibility to allergies or infections due to the imbalanced diet.

## **GENES VERSUS ENVIRONMENT**

There is a hazy and vague line of demarcation between genetic versus environmental influence on the body. Certain improper agents such as alcohol can cause ontogenetic deformity of the genes which become a permanent fixture of the dysfunctional gene. Such, a dysfunctional gene can be passed through to the next generation. It doesn't matter if almost 10,000 years ago, there was no such thing as bread in the human diet. Ten thousand, years is long enough time for the human brain to become used to the bread.

As long as the bread is not causing adverse chemical damage, then the genes learn to adapt, and to benefit from it. On the other hand, replacing bread with a croissant or French pastry introduces excessive amounts of sugar and fat which are harmful to the body. Not even bread or every carbohydrate can be equated and given comparative caloric value. The caloric value is only useful for the measurement of weight. Weight is not at all as important as the state of health and quality of life. The weight is more likely to be determined by the genetic and hormonal factors than by the number of calories. A hypothyroid person is apt to be heavy. A hyperthyroid person is apt to be thin. A child born to thin and miniature size parents is apt to be small in size. In about 10% of obese people, it is a genetic factor that decides the ultimate weight of the individual.

It is concluded that all foods are not created equal, though they may have a similar caloric equivalent of energy.

The power of plasticity (healing) influenced by the change of coding in the genes is a strong determinant of the health and well-being, and as to the eating habits of the individual.

The same genetic plasticity decides how a surge of intake of carbohydrates is handled by the body.

An individual who eats a lot of 5-C's (i.e., candy, cookie, chocolate, cake, and cocktail) programs the insulin-releasing gene to be easily excited by the surge of the blood sugar (1). The insulin directs the sugar to be stored in the liver and muscles in the form of glycogen. So, two or three hours after the intake of a good-sized portion of one of the 5-C's, the blood sugar drops (1). This issue causes a reaction in the body to counteract the low blood sugar by secretion of adrenaline mobilizing glucagon and releasing glucose from the glycogen from the liver.

On the other hand, if the 5-C's mentioned above are replaced with high fiber carbohydrates such as bread or pasta and fructose from fresh fruit, then the blood sugar stays steady and the individual does not go through the roller coaster effect of high and low blood sugar (1). The steady blood sugar initiates a feeling of satiety that curbs the appetite.

One can call the genetic response of the insulin mobilizing gene as genetic hyperactivity or hypoactivity. However, this condition is not necessarily passed from one generation to the next. The penetration of the function of the gene to the next generation is quite weak and it may take quite a few generations of repeating the same eating habits.

Popkin, et al reported on dietary habits from 1965 through 1991 (4). They noted that in 1965 the African Americans of low socioeconomic status had a healthier dietary habit than the Caucasians of high socioeconomic status. Only 4.7% of Caucasians of high socioeconomic status were on a healthy diet versus 16.4% of African Americans of low socioeconomic status. From 1965 to 1991, the Caucasians showed a significant decline in the intake of citrus and other fruits and vegetables. Whereas both African Americans and Caucasians showed a tendency to cut down on their intake of low-fat cheese, the Caucasians were twice as likely to avoid a low-fat cheese intake.

With the passage of decades, African Americans and Caucasians developed a more homogenized diet except of the intake of high-fat grain-based mixes which surprisingly increased in both groups by 33% in African Americans and 48% in Caucasians. There is no explanation or logic for increasing the high-fat grain and at the same time avoiding low-fat dairy products such as low-fat white cheese.

On the other hand, the death rate is higher among poverty-ridden African Americans or Caucasians than among the financially privileged African Americans or Caucasians (5). The mortality among African Americans is even higher if born in the ghetto or southern states. This is in contrast to African Americans born in the Caribbean (6). More important than race is the socioeconomic, environmental influence.

One fact remains undisputed: the fast-food chains have grown astronomically since 1965, and they may have played a major role in the average of one pound a year increase of our average citizen. Other similar studies show unhealthy trends in dietary habits. The study of life sciences research office, the federation of American societies for experimental biology reported on similar studies of unhealthy trends in dietary habits.

The third report on nutrition monitoring in the United States, Volume 1, Washington, D.C. government printing office, 1995 of our dietary habits shows that we as a nation are consuming more and more vegetable fat. This fact is not simply the good olive oil fat, but mainly the vegetable oil which after cooked transforms to more than 90% cholesterol.

There is serious confusion and a misconception that just because it is called "vegetable oil," it must be healthy. Nothing could be further from the truth. Fat is fat if it is in the form of vegetable oil or animal oil. As one example, there has been a trend toward consuming croissant or granola cookies as a "healthy food." These two items contain much more fat than cereals or bread.

However, despite of all the misconceptions, and misleading information regarding a healthy diet, there has been a definite reduction in the incidence of heart attack and stroke. This only proves that even a partially improved diet is better than a disastrously unhealthy diet of steak, butter, mayonnaise, candy, cookie, chocolate, cake, cocktail, animal or vegetable oil.

This improvement in survival and reduction of stroke and heart attack is, even though the consumption of French fries has been progressively on the rise rather than showing any decline.

### **QUALITY VERSUS QUANTITY**

There has been too much emphasis on calorie-counting, and purely cutting down on the calories containing dangerous fat, such as all protein diet, all carbohydrate diet, egg and meat diet, or "all you want to eat meat diet."

Food is treated in the body like a drug, (\*chemical ingredients), and it can act as a stimulant versus a tranquilizer versus an antidepressant. It is not consumed in an ideally healthy, balanced fashion (Table 2).

**TABLE 2. THE IDEAL VS. PRESENT DIET**

*(Updated and modified from a Senate Subcommittee report on Nutrition, 1977)*

<b>IDEAL</b>	<b>PRESENT DAY</b>
Carbohydrates 58%	Carbohydrates 46%
Complex carbs, natural sugar in vegetables and fructose 50%	A complex carbs, natural sugar in vegetables and fructose 36%
Sucrose 5-8%	Sucrose more than 12%
Protein 12%	Protein 12%
Mainly fish, fowl, legumes, grains, dairy	Mainly red meat, not enough dairy
Fat 30%	Fat 42%
Saturated 16%	Saturated 12%
Monounsaturated (e.g., olive oil) 13%	Monounsaturated 19%
Polyunsaturated 7%	Polyunsaturated 7%

**CHAPTER 4  
DIET AND BEHAVIOR**

Among dozens of amino acids which form proteins there are two opposite categories:

1. Tyrosine (in red meat and sharp cheese): It elevates the level of dopamine and adrenaline. It causes irritation, agitation, and insomnia. It is called the lion's food: It makes the animal mean, aggressive, and tense.
2. Tryptophan: in white meat, fish, and dairy products. It elevates the level of serotonin. It induces natural sleep, normalizes behavior, and counteracts depression.

In migraines, in children suffering from attention deficit and hyperactivity, autism, Tourette syndrome, hypertension, alcoholism, depression, and insomnia, tyrosine aggravates the condition and tryptophan helps improve the illness.

## **FOOD AS A STIMULANT**

The protein in food breaks down into amino acids that influence cerebral function. There are two main groups of protein in food: Tyrosine and Tryptophan. Tyrosine is the precursor of dopamine and norepinephrine, hence the stimulator of behavior. Tryptophan is the precursor of 5HT and serotonin, hence, antidepressant and moderator of behavior.

Mild white cheese, similar to fish and fowl, is rich in tryptophan.

Sharp cheese, similar to red meat, is rich in tyrosine. The catecholamine receptors in the brain, especially in the brain stem, are the key to states of alertness, arousal, and hyperexcitability.

Tyrosine, similar to cocaine, by increasing the release of catecholamines stimulates the formation and breakdown of catecholamines-causing excitation, lack of sleep, feelings of omnipotence as well as agitation and restlessness.

This increased turnover and breakdown of catecholamines result in the depletion of vital biogenic amines (catechol's) leading to a withdrawal effect and depression. Similar effects may be noted with the intake of small quantities of alcohol, and coffee or chocolate-the latter contains theobromine, caffeine, and phentolamine. This chemical in effect is similar to cocaine. Both phentolamine and cocaine are extracted from the same plant. A diet high in Tyrosine also has a similar effect as the above-mentioned drugs.

The second group of proteins (containing tryptophan) in food has a calming effect opposite to that of tyrosine. The tryptophan abounds in yogurt, white cheese, and the 4-Fs Diet (fresh fruits, fresh vegetables, fish, and fowl) (1). Tryptophan is the precursor to serotonin. The ubiquitous serotonin is the common denominator for counteracting pain, especially headaches, insomnia, agitation, and depressive agitation.

## **CHAPTER 5 THE ROLE OF FOOD IN PAIN MANAGEMENT**

Proper eating plays a major role in pain management. A vivid example is the severe painful nutritional neuropathy secondary to alcohol. This kind of nerve dysfunction due to alcohol abuse (which deprives the nerves of vitamins and proteins), is the most prevalent form of nerve fiber damage in the extremities. This explains painful extremities as well as poor or lack of erection in alcohol users. Alcohol, by providing false calories, and by causing fatty liver, results in poor absorption and metabolism of the foods and vitamins. Alcohol, especially destroys and blocks the absorption of vitamins B1 and vitamin B complex.

Also, alcohol is a major contributor to the development of diabetes mellitus. Two third of adult-onset diabetics can reverse their disease by the abstinence of alcohol, proper eating, and taking multivitamins (especially vitamin B1) daily.

In diabetes, the sugar is not properly metabolized, and lack of availability of sugar in the peripheral nerves causes permanent damage to the nerve fibers. Diabetes also causes poor circulation to the nerves in the extremities aggravating the pain.

Other conditions such as neuropathic pain, pain due to shingles and other forms of damages to the peripheral nerves from the herpes virus cause intractable pain. Such neuropathic pain conditions are more likely to develop in the elderly who have problems with poor absorption of food and also have a poor immune system function.

Even though the role of proper eating is quite obvious in the above-mentioned conditions, the pain clinics universally ignore the application of proper diet and eating as part of pain management.

Besides the importance of proper nutrition, a proper vitamin intake of fructose and proteins, food can be therapeutic for such painful conditions as osteoporosis, cell membrane dysfunction in heart attack and stroke.

Certain foods act like calcium and sodium blockers. Normally, calcium is in relatively high concentration in blood. If the cell membrane of the heart or brain cells is not functioning properly, it cannot keep the calcium out of the cell. As a result, the calcium leaks into the cell and causes coagulation and death of the cells. The best preventive factor is magnesium. Magnesium is rich in grapefruit, navy beans, soybeans, spinach, barley, oatmeal, tofu, figs, and white beans.

The best source of magnesium is fresh grapefruit and freshly squeezed grapefruit juice. The grapefruit juice from concentrate contains sulfate, which reduces the effectiveness of the magnesium.

The same foods that are high in calcium and magnesium also have a balanced high level of calcium.

Dairy products are not a proper source of magnesium and are not even an ideal source of calcium. The calcium in dairy products is poorly absorbed if the food contains animal protein, especially red meat. The least effective source of calcium is calcium tablets. Such tablets are not as effective as the natural forms of calcium in the food.

To achieve a proper function of the cell membrane to prevent the death of the nerve cells and to prevent osteoporosis, the best source of calcium and magnesium is from vegetables, especially cabbage.

Grapefruit juice has had a bad rap because of its high concentration of magnesium. There is nothing wrong with grapefruit juice when the patient is not on other types of medications. On the other hand, if the patient is already taking calcium channel blockers and certain types of medications to prevent heart attack and stroke, then the grapefruit juice opens the calcium channel gates and facilitates the input of large amounts of magnesium into the cell causing a toxic effect. This can be prevented by taking grapefruit juice in between the two dosages of the medications or at a completely different time of the day away from the time that the patient is taking heart or blood pressure medications. The people who properly drink grapefruit juice discover, that either they have to cut down the dosage of heart, stroke, or blood pressure medications or some of them can come off such medications with the help of grapefruit juice intake.

Another cell membrane pump, in the form of a sodium-potassium pump, is a vital protector of nerve cells, and heart muscles. Its function can be facilitated by the patient taking plenty of fruit and vegetables which provide a good source of potassium. Potassium belongs in the cell and sodium belongs outside the cell. Sodium absorbs 70 to 1 times water and if too much sodium enters the cell it causes waterlog and destruction of the cell. Increasing the intake of fruits and vegetables, and avoiding additional table salt to the food is quite helpful in pain management.

Since alcohol partially affects and paralyzes the sodium-magnesium pumps at the cell membrane level, it emphasizes the importance of abstaining from alcohol in any disease.

## **DIET IN MIGRAINE AND NEUROPATHIC PAIN**

In chronic neuropathic pain, the tyrosine-dopamine-norepinephrine system is in full swing. Ideally, a vegetarian diet is the best to counteract the hyperactive dopamine system-the vegetarian diet does it with the help of tryptophan-generated serotonin and its inhibitory effect on pain.

At the top of the list of things to avoid are the chemicals that stimulate the formation of catecholamines. These consist of alcohol, chocolate, hot dogs, cold cuts, and red meat. The above-mentioned chemicals can trigger migraine and neuropathic pain due to a surge in tyrosine. The pain and headache are aggravated by the presence of chemicals such as nitrites and alcohol, which tend to disrupt the cell membrane function.

Diet without exercise is practically useless.

The following change of food intake is helpful in the treatment of neuropathic pain such as herpetic neuralgia, RSD/CRPS, migraine headache, migraine in children, and attention deficit in children. The changes are based on an intake of foods rich in tryptophan and fructose and low in tyrosine and sucrose. It eliminates stimulants such as chocolate and caffeine. It also eliminates hot dogs (which contain nitrites), cold cuts (which contain strong chemical preservatives and excessive intake of the 5- C's (candy, cookies, chocolate, cake, and cocktail). A surge of tyrosine the diet (e.g., port wine, red meat, and sharp cheese) stimulates the formation of dopamine and epinephrine. This is followed by a release of sugar from glycogen and the elevation of blood sugar. The secondary stimulation of insulin results in a reactive hypoglycemia voracious appetite, secondary weight gain, and lowered pain threshold-especially in the form of headaches.

In contrast, foods rich in tryptophan (e.g., mild white cheese, white meat, yogurt, etc.) exert the opposite effect: steady blood sugar, less appetite, and tranquility.



## **COFFEE**

If at all possible, coffee should be avoided altogether. To consider coffee as a simple conveyor of caffeine is naive.

1. Coffee has an acid-based oil which is an irritant to gastric mucosa. It stimulates the secretion of gastric acidity; the high gastric acidity results in the secretion of adrenaline. The secretion of adrenaline stimulates insulin secretion with consequent secondary hypoglycemia. The result is tension, mild rise in blood pressure, and two to three hours later a craving for sweets (set in because of the reactive hypoglycemia). None of the above is conducive to good health. The secondary rise in plasma epinephrine due to low blood sugar will undo whatever good any medication is doing to counteract the hyperactive dopaminergic system in patients suffering from pain, obesity, hypertension, or depression. The decaffeinated coffee contains the same acid oil and is no better.
2. Mild tea (e.g., a diluted ice tea) does not cause reactive hypoglycemia and a rise in blood pressure. A cup of coffee contains 30 mg caffeine versus 5-10 mg caffeine in iced tea.
3. Tea, if prepared in a mild form (not too strong), contains less caffeine. It has no acid-based oil as coffee. It contains tannin. Tannin or tannic acid curbs thirst and results in a lessened desire for further consumption of tea or coffee.
4. Both coffee and tea temporarily raise body temperature. A few minutes after drinking coffee, the stimulation of the dopaminergic system results in cold extremities along with a simultaneous rise in deep (visceral) temperature. Tea has a milder effect in this regard.
5. Diluted iced tea appears to be a mild and safe drink.
6. A patient with a high fever is harmed by coffee and helped by tea and lemon juice. As in the case of homemade chicken soup is helpful to the sick (in contrast with canned soup) mild tea, for unknown reasons, has a healing effect and coffee has an aggravating effect in patients suffering from fever or other distressful illnesses.

## **HERBAL TEA**

Although tea is considered less harmful than coffee, it does not follow that herbal tea is good or healthy for everyone. Herbal teas come in a variety of dried leaves. Some herbal teas may be beneficial. Ginseng tea has anti-fatigue and calming properties. Some of the herbs contain toxic substances that can be harmful. Because of the variety in strength and quality of chemicals in herbs, the use of herbal teas is a chemical crapshoot that should be avoided. Some of the teas contain a high dose of tannins (e.g., sassafras tea) that can be carcinogenic. Catnip, juniper, nutmeg, and hydrangea may be hallucinogenic. Chamomile and marigold can be fatally allergenic. Senna leaves, aloe leaves, and duck roots can be strongly cathartic. Mistletoe leaves and horsetail grass may cause fatal toxicity. So why take a chance with such chemicals?

## **CHAPTER 6**

### **FOOD THE UBIQUITOUS DRUG**

The body treats the chemical components of food as any drug. However, phylogenetically our body has been conditioned to function optimally with the aid of natural foods (e.g., fruits and vegetables). It is not designed to handle the "civilized" junk foods. We are born with instincts to eat healthy foods. However, parents who allow junk food in a child's diet can distort its taste permanently beginning in the second through fourth years of life. This behavioral conditioning stays with us for the rest of our lives.

During the 20th century, the diet has been saturated with man-made "foods"--chemicals designed to be palatable and to provide instant pleasure with the potential of leading to addiction.

Our diet has been off-balance since World War II. Before World War I (1909-1913) we had a well-balanced and near-ideal diet of 32% fat, 12% protein, and 52% carbohydrates. What is worse, fat consumption has been mainly animal and unsaturated vegetable fat. We consume very little of the healthy monounsaturated fat (e.g., olive oil, canola oils, or sunflower oil). Carbohydrates have been mainly crystalline sugar with low... percentage of the healthy fructose and complex carbohydrates (rice, pasta, and vegetables).

Our main source of protein has been red meat. Much lower amounts of healthy proteins, such as almond, fish and mild cheese are consumed. Red meat is consumed at the rate of 100-150 pounds per year; fish at the rate of 13-15 pounds per year; cheese from 17-18 pounds per year (Source: U.S. Department of Agriculture).

In the past 20-years, as we have been increasingly emphasizing to "say no to drugs," the media and the medical community have left us with the impression that alcohol, the ultimate drug, when taken in "moderation," can be helpful to our health.

As teenagers have been consuming alcohol in so-called "moderation," over 50% of the college students have become binge drinkers. The alcohol intake represents a large percentage of our daily false calories and carbohydrates.

The combination of processed red meat (sausage, liver, bacon, etc.) and alcohol has become a common, everyday health hazard, resulting in:

1. Elevation of the serum low-density lipid (LDL) cholesterol.
2. Rise in Tyrosine intake with its side effects of agitation and elevation of epinephrine. This secondarily contributes to hypertension at an earlier age.
3. Malnutrition due to alcohol and certain junk foods-such as hot dogs. The number one cause of peripheral neuropathy in the United States is nutritional (alcoholic) neuropathy.
4. "Acid rain" effect of alcohol-devastating natural brain hormones.
5. A drop in calcium and magnesium intake along with a rise in sodium intake conducive to hypertension.

6. Early-life, stroke and heart attack, depression, and suicide. More than three-fourths of teenage suicides are alcohol-related. More than half of rapes and other sexual crimes are associated with excessive alcohol consumption. Excessive bingeing among teenagers is the cause of mental and scholastic deterioration. A stroke among patients, younger than 45-years old, most commonly occurs among obese and heavy beer consumers. They have multiple diagnoses of obesity, hypertension, hyperlipidemia, smoking, which camouflage the excessive alcohol intake.

7. Alcohol and liver changes act as a "horse and buggy." However, nicotine receives most of the blame. It does deserve the blame-but so does alcohol.

8. Alcohol, along with frequent intake of coffee and sugar, results in the erratic secretion of insulin followed by attacks of hypoglycemia. Eventually, this results in diabetes due to chronic pancreatic stress.

Approximately two-thirds of all adult-onset hypertensive and diabetic patients reverse to normal simply by abstaining from alcohol and changing their eating habits (4-F's Diet: Fresh fruit, fresh vegetables, fish, and fowl) (1).

On the other hand, the consumption of fruits and vegetables in combination with an intake of dairy products such as mild cheese or yogurt, (which contain tryptophan), results in a stabilizing of the blood sugar level. The tryptophan acts as an antidepressant (by changing to serotonin) and tranquilizer.

While it is true that the incidence of heart attack and stroke in the general population is on the decline, the younger generation is showing a higher incidence of cancer, heart attack, and stroke due to the above-mentioned factors.

## **CHAPTER 7 OXIDANTS AND ANTIOXIDANTS**

Oxidation is the process of decay of a biologic chemical. The simplest form of oxidation is rusting. Even a piece of iron can rust (become oxidized) and undergoes the breakdown of its molecules which result in decay, degradation, and eventual destruction of its structure.

If a plate of fruit is left even in a cold room exposed to sunshine through the window pane, the ultraviolet rays cause oxidation and breakdown of the fruit. The fruit will taste acidy and "old."

In the ubiquitous vital molecule of water ( $H_2O$ ), tells us that one molecule of water is comprised of two atoms of hydrogen and one atom of oxygen bonded together. This forms the neutral form of water with no tendency to break down (oxidize). On the other hand, in the example of the above-mentioned rotten fruit, heat or ultraviolet radiation causes the breakdown of the molecules of carbohydrate. The carbohydrate breaks down to carbon dioxide plus water and a free radical of oxygen. The free oxygen ( $O^+$ ) is an unstable free radical and attaches to the closest molecule of water ( $H_2O + O = H_2O_2$  or hydrogen peroxide).

The hydrogen peroxide causes further breakdown of the remaining carbohydrate molecule in the food. The process continues, resulting in the degeneration of the carbohydrate and protein molecules and further formation of free radicals.

The process of free radical formation is the first step of the deterioration of the molecules in the body (aging). The formation of free oxygen radicals, which also leads to nitric oxide (NO) formation causes eventual death of the living cells.

The leftover food is laden with the decomposed molecules of proteins (nitric oxide) and carbohydrates (free oxygen radical). The leftover food (usually called "the doggy bag" in the restaurant) should not be consumed by either the human or the dog. Certain chemicals, such as red meat and alcohol are more likely to undergo free radical formation. The accelerated destruction of the red meat is facilitated by an important destructive oxidant, iron, which is richly stored in the red meat.

Food marinated with alcohol undergoes rapid oxidation due to the oxidant effect of alcohol. Whereas the wine industry advertises the fact that the non-alcoholic components of wine contain antioxidants such as quercetin, epicatechin as well as resveratrol, such antioxidants present in the non-alcoholic component of the wine will do no good as long as the alcohol is consumed simultaneously. Alcohol is a strong oxidant and is destructive to the protein, fat, carbohydrate molecules, and it neutralized the beneficial effect of the non-alcoholic portion of the wine.

The recent reports in JAMA show that antioxidants, vitamins A, D, and E are quite effective in the natural form in the food, but they do not show the same beneficial effect when used in tablet form. Especially during the research done on the antioxidant effect of Vitamin A, the experiments had to be discontinued due to the harmful effect of vitamin A tablets (7). This is proof that the best form of vitamins is natural fruits and vegetables. The reason the vitamin A tablet is dangerous is due to the fact that vitamins A, D, E and K are fat-soluble, accumulate in the brain, and can cause water retention and swelling of the brain.

### **IRON-THE DOUBLE-EDGED SWORD**

Iron is an essential metal that can accept and donate electrons easily by interconverting between ferrous ( $\text{Fe}^{2+}$ ) and ferric ( $\text{Fe}^{3+}$ ) forms. By this conversion, iron makes the oxygen available to the tissues through the cytochromes. So, the oxidative function of the iron is vital.

In contrast, the iron is potentially damaging to the body tissues, especially the liver, by converting the free oxygen radicals to hydrogen peroxide. In this regard, it is a double-edged sword, and it is as dangerous if there is too much iron as too little iron.

Whereas poor nutrition reduces the iron level of the blood, long-standing effect of alcohol on the liver causing fatty liver and cirrhosis of the liver results in excessive release of iron-free radicals. Such free radicals stimulate the bone marrow to form more red blood cells to the point of causing a higher number of red blood cells in the blood (polycythemia). This phenomenon contributes to the rapid death of liver cells, hardening of the liver (cirrhosis), and further failure of liver function.

In different stages of heavy drinking, the patient may have a high or low level of iron. In the early stages, the iron level in the blood is low, and in late stages because of the factor mentioned above, there is elevated iron in the blood.

The facts should encourage any person taking iron supplements. The small amount of iron in multivitamins may be beneficial if the patient has poor eating habits. However, taking excessive amounts of multivitamins with iron can create havoc on the bone marrow, liver, and other tissues.

The best sources of iron are nuts, especially pistachio and macadamia nuts, beets, legumes, and vegetables. The intake of iron tablets should be strongly discouraged and should be replaced by a change in dietary habits.

## **CHAPTER 8**

### **OBESITY: THE EPIDEMIC DISEASE OF THE CIVILIZED WORLD**

Obesity is a chronic disease, resulting from an imbalance between energy intake and expenditure; it can be caused by genetic, environmental and behavioral influences.

The definition of obesity is an excess of 20% above desirable weight.

According to the U.S. Census Bureau, approximately 58 million adults-32 million women and 26 million men are obese. This number represents more than a third (33.4%) of the adult U.S. population (Table 3). From 1991 to 1999, the rate of the obesity epidemic has doubled. According to a USDA study, 71% of Americans require correcting their improper and fattening eating habits.

The nation's obesity rates are continuing to go up from 25% of adults in 1980 to 33.4% in 1991, and up to 75% in 1999. This epidemic is fueled by the harmful influence of parents on the early life, eating habits of their children. Hotdogs, hamburgers, and French fries have become the main staple of daily food among school children, the youth, and adults.

The second contributing factor is the lack of exercise. A healthy, aerobic exercise (walking, running, or swimming) leads to effective weight loss, longer life expectancy, and effectively prevents cancer (especially breast cancer). The explosive growth of Atlanta has led to the sacrifice of sidewalks to make room for highways. This had made exercise (walking) less practical.

A combination of lack of exercise and greasy southern food, as well as Cajun cooking, has aggravated the condition.

Obesity leads to diabetes, hypertension, gall bladder disease, stroke, heart attack, and susceptibility to cancer.

When Twiggy (the British model) was 17-years old, the average female was 16 pounds heavier. Now, more than 20-years later, she is 36 pounds heavier.

### TABLE 3. A RICH, FAT SOCIETY

(Source: New York Times 7/17/94)

National weight surveys are presented for people 20 to 74 years old. Before 1980, Hispanic people were not treated as a separate category. Years indicate when surveys were conducted. Figures represent percent of each group 20 percent or more over ideal weights.

	'62	'74	'80	'91	Increase from '80 to '90
<b>Both sexes</b>	24.4%	24.9%	25.4%	33.3%	31.1%
<b>Men</b>	22.9	23.6	24.0	31.6	31.7
<b>Women</b>	25.6	25.9	26.5	35.0	32.1
<b>White men</b>	23.1	23.8	24.2	33.5	37.3
<b>White women</b>	23.5	24.0	24.4	33.5	37.3
<b>Black men</b>	22.2	24.3	25.7	31.5	22.6
<b>Black women</b>	41.7	42.9	44.3	49.6	12.0
<b>White, non-Hispanic men</b>	—	—	24.1	32.1	33.2
<b>White, non-Hispanic women</b>	—	—	23.9	32.4	35.6
<b>Black, non-Hispanic men</b>	—	—	25.6	31.5	23.1
<b>Black, non-Hispanic women</b>	—	—	44.1	49.5	12.2
<b>Mexican-American men</b>	—	—	31.0	39.5	27.4
<b>Mexican-American women</b>	—	—	41.1	47.9	15.7

  

By age group	20-34 years old	35-44	45-54	55-64	65-74	75 and over
<b>Men</b>	22.2%	35.3%	35.6%	40.1%	42.9%	26.4%
<b>Women</b>	25.1	36.9	41.6	48.5	39.8	30.9

All figures for women exclude pregnant women. Sources: Centers for Disease Control and Prevention, National Center for Health Statistics. The statistics from '91 thru '99 show no reversal-rather, an acceleration of weight gain by over two-fold.

### FACTORS CONTRIBUTING TO OBESITY

Basic knowledge is half the battle; knowing and understanding why certain foods should be avoided, an individual does not need to go through the ridiculous diets every few months only to regain all the weight when the diet torture is over.

The invention of the automobile ushered in an era of epidemic obesity. Gone are the days when people had to walk to get from place to place, ride a horse to get from home to the train station or have to ride a bicycle as the last alternative.

In the past 25-years, the overall average weight has increased by eight pounds. Looking at the same quarter-century, there has been an increase of 8% in the number of people suffering from malignant obesity.

One subtle factor in the development of obesity which is not as strong as parental teaching of poor and junk food diet, but strong enough to be statistically significant is neurotic and excessive compulsive behavior dysfunctions. These dysfunctions cover the spectrum of anorexia on one end to malignant obesity on the other. In a study of nearly 1,000 individuals admitted for inpatient treatment for sexual addiction, 38% of the patients had eating disorder, 43% were chemically dependent, 28% were compulsive workers, 26% were compulsive spenders, and 5% were compulsive gamblers (8). This is a good example of how a behaviorally dysfunctional brain can cause more than one form of addiction from food to alcohol to gambling to hyper-sexuality.

Less than 10% of obese people have a gene that contributes to their obesity-and to have a similar weight problem as their parents; 90% are overweight for other reasons. This principle of 5-10% genetic contribution applies to other diseases such as alcoholism, cancer, or Alzheimer's. Yet, the academic and media try to blame practically all these diseases to the genes. They ignore the following factors:

## **1. LACK OF EXERCISE**

Being a TV couch potato; drinking while watching TV; and any drugs (e.g., alcohol, marijuana, and the antidepressant Amitriptyline) hangovers discourage exercise and contribute to obesity. Elavil (Amitriptyline) causes an average of 15 pounds of weight gain in the first year of intake (9).

Some people (especially teenagers) have a more hyperactive sympathetic system and are hyperkinetic by nature, and cannot sit still for any length of time. They burn their calories while moving around. Others tend to be inactive and don't effectively burn calories. The frontal lobe of the brain is rich with a hormone called Cholecystokinin (CCK). This hormone stimulates a perpetual tendency for moving around and being fidgety. After age 35, aging of the frontal lobe causes the reduction of CCK, which leads to obesity.

Depression, especially peri-menopausal depression, plays a major role in inactivity and fatigue, resulting in weight gain.

The best form of exercise, by far, is walking. Swimming does not work as well because the body is buoyant and loses fewer calories. Running is an excellent, but strenuous exercise. It has the potential of habituation (addiction) with the runner achieving a "high" and overdoing the running with the risk of a heart attack. Mr. James Fixx, who wrote a book and popularized running, died of a heart attack at the young age of 40 while running. A consistent schedule of exercise, even three times a week, is better than excessive exercise limited to the weekend. The body and the brain crave routine habits. Anything that is not routine is stressful. The distress tends to contribute to obesity due to nervous eating habits-to increase their intake of food.

## **2. FAT CONTENT OF THE FOOD (SEE TABLE 1)**

The bad news is that even the most tasteless, dietetic, and low-calorie foods contain fat. If you are aiming for an ideal, 15% to 20% fat diet, it would require a dietitian to sit down and, compile a stringent list of strictly natural foods. Even though there is no guarantee that the food manufactured by food companies containing what they claim on the label, people rely on the label and don't realize that the label is not accurate or is vague. For example, the label refers to the term "carbohydrates" instead of specifying the sugar content to cancel the ubiquitous sugar (glucose) added to the food. The sugar is usually transformed into fat and is stored in the fat cells when eating a large serving of sweet and delicious food.

Fat begets fat. As the sugar is transferred to fat, the existing fat cells are saturated and become enlarged to the limit of the cell having to multiple to prevent the rupture of the fat cell membrane.

Every fat cell needs approximately one calorie a day to survive. Every pound of a fat cell requires almost a mile of newly formed blood vessels (angiogenesis) originating and branching off from the arteries (angiogenesis) which becomes a major strain on the heart. One of the commonest causes of death in obese patients is myocardiopathy which refers to the muscle of the heart having to work so hard to pump the blood into the new blood vessels. The heart becomes weaker and eventually kills the patient due to decompensation. There is a limit on how much the heart muscles can pump blood into the blood vessels. Eventually, it exhausts the heart muscle and causes a slow, painful, gradual death.

Every one thousandth of an extra calorie fed to the existing fat cell enlarges the size of the fat cell, requiring more calories exponentially. This accelerated growth and multiplication of the fat cells leads to unchecked and intractable obesity. This malignant process shall continue irreversibly if the patient suffers from an endocrine deficiency (e.g., hypothyroidism), or if the patient suffers from severe depression treated with tricyclic antidepressants such as Elavil or Pamelor (Nortriptyline). Other conditions such as brain damage due to head injury or retardation leads to a reduction in the formation of cholecystokinin in the frontal lobes. The reduction of this enzyme which reduces appetite, will lead to insatiable appetite, and malignant obesity.

Another important factor is exposure in early childhood to foods containing false calories, such as butter or margarine. No one should consume butter or margarine. The vegetable oil may be cholesterol-free. However, as soon as it is cooked, it changes to the golden color of pure cholesterol. Even the banana, obviously the coconut, and most nuts, are high in fat.

Cooking food with olive oil may keep the cholesterol level down, but it does not directly help contribute to weight loss. It may help lower the blood cholesterol level, but not the weight problem.

Because of the fast-food way of life (e.g., McDonald's, etc.) fat overdose is becoming an epidemic. The misconception that there is nothing wrong with children eating fat has resulted in a rise in incidences of obesity in children ingesting oil-soaked French fries.

The autopsy of three and four-year-old children (after a car accident), shows concentrations of cholesterol and rich fat deposits in the walls of the blood vessels. Besides fast food and greasy fried food, the most common forms of fat intakes are butter, margarine, and mayonnaise.



Each gram of fat contributes twice as much to obesity as compared to each gram of sugar.

Every attempt should be made to exclude fat. Eating the proper food such as shellfish or nuts provides plenty of good cholesterol (LDL) and fat.

Meat should be grilled, spicy dressings such as balsamic vinegar should be used on salads. Even when fat is excluded, the best, one can aim for is a fat content of 20% in the diet.

### **3. ALCOHOL**

The media and the doctors have already told you that having two drinks a day is good for your health. This idea is a big lie. The taunted statistics-contaminated by the fact that one-third of all teetotalers are members of Alcoholics Anonymous-alters the non-drinking group's statistics and makes the "two-drinks-a-day" group look healthier.

Alcohol has no nutritional value and has never been proven to be good for any type of health problem. Countless statistical studies have shown that heavy drinkers (three or more drinks a day) are dying due to the damaging effect of alcohol. This is contrasted with the second group of moderate drinkers (one to two drinks a day) who have the best life expectancy. This is because moderate drinkers also follow a balanced and moderate living style in all aspects of their life habits. The third group, the teetotalers, has the second-highest mortality because one-third of them are ex-heavy drinkers and members of Alcoholics Anonymous (AA). Even though they haven't touched alcohol for a dozen or more years, they are dying from the long-term side effects of their years of heavy drinking. This statistical confusion has been misconstrued as the "beneficial effects" of "moderate drinking." The best example is the recent article in JAMA which showed the moderate drinkers fared better than the non-drinker (10). The non-drinker group comprised of AA members and teetotalers lumped together (10).

A lot of heavy ex-drinkers eventually stop drinking because of severe complications of alcohol. These "sick quitters" contaminate the statistics by being categorized as "non-drinkers (11).

Among the mild to moderate drinkers, 50% do better due to their high-density cholesterol diet, not because of alcohol (Table 4) (12, 13).

**TABLE 4. DRINKERS VS NON-DRINKERS:  
FACTORS CONTAMINATING STATISTICS**

1. The common practice of grouping the never-drinkers (tee totler's) together, with ex-drinkers (AA, sick-quitters, alcohol-cirrhosis patients, etc.) (10, 11). The grouping obviously shows a bias of harmful effects of ex-drinkers contaminating the non-drinker group.
2. Among the "mild to moderate" drinkers, approximately 50% do better because of their proper, healthy, high density lipoprotein (HDL- high density cholesterol) diet (12, 13).
3. Studies comparing drinker vs. non-drinker diabetics do not take into account that a majority (over two-thirds) of adult onset diabetics improves by quitting alcohol intake (10).
4. "Sick-quitters," who are forced to abstain due to long-term side effects of alcohol, are not expected to fare well (11).
5. The present trend is towards poor history taking: contaminating the statistics by erroneous ignoring and omitting history of alcohol abuse. This is compounded by the patient's poor memory due to alcohol, and diabetes.

**THE FRENCH PARADOX**

Certain alcohol beverages are less harmful than others from a standpoint of stroke and heart attack. Young females habituated to drinking moderate to a large volume of beer are more likely to suffer from cerebral stroke. Wine is less likely to cause a stroke and heart attack. This fact is referred to as "the French Paradox" refers to the fact that the French, in contrast to Asians, show a lower incidence of heart disease in spite of their wine-drinking habits (14, 15). Certain confounding factors should be taken into consideration: The French paradox has developed on the background of a more relaxed and less driven lifestyle, genetic tolerance of alcohol (in contrast to Asians and North Africans); healthier eating habits in the form of smaller size meals, less grease, and more relaxed mealtime; less tendency to drink beer-which is more harmful than wine (due to the fact that beer contains Maltose, contributing to obesity and hypertension).

In contrast, heavy and pathological drinking is epidemic-especially among the youth. Eighty-five percent of high school seniors are heavy drinkers. Then, they graduate to binge drinking in college. The Harvard epidemiology study has reported binge drinking (pouring it down with a water hose) is prevalent in approximately one-third of college students.

The other factor to take into consideration is the fact that research on Red-vs.-White wine is supported by the wine industry. The research is done on Red-vs.-White grapes, which shows red grapes are healthier than white grapes, due to an antioxidant called resveratrol, which is found in the skin of the red grape. However, after fermentation, both red and white wines lose most of their nutritious, antioxidant values. There is nothing in common between the fresh antioxidant grape vs. alcohol trapped in the wine bottle for years or decades.

No research has claimed that non-drinkers should start drinking. The stroke prevention advisory board advises against encouraging alcohol intake (16).

#### **4. FATTENING FOODS**

The main forms of fattening "foods" are:

- Alcohol
- Fat
- Processed, crystal sugar

Of these three, the body burns the alcohol first. As a result, the simultaneous intake of fat and sugar is stored as fat under the skin of the abdominal wall, in the liver, and other parts of the body.

Combining alcohol with even a relatively healthy food such as rice or pasta forces the liver to detoxify the alcohol first, while, rice or pasta are stored as fat (triglycerides). The alcohol will undo all the good that the complex carbohydrates are supposed to do.

The intake of alcohol, along with red meat, is a major aggravator of the weight problem. Alcohol, being toxic and being easier to transform to calories, is metabolized first by the liver. While alcohol is burning, the fat in the red meat (40-45% of weight of red meat) is being stored over the abdominal wall. Also, the alcohol and the red meat contribute to blood pressure and blood sugar fluctuation resulting in hypoglycemia a few hours later, leading to fatigue, and inducing an additional intake of calories every few hours. Both alcohol and red meat elevate the blood pressure (red meat contains tyrosine which changes to adrenaline, and alcohol stimulates the frontal lobe to raise blood pressure as well as acting as a stressor on the sympathetic system. Seventy percent of hypertensives and diabetics become normal by abstaining from alcohol.

The combination of alcohol and red meat not only causes obesity, but it also places one at the risk for hypertension, stroke, and heart attack. Both alcohol and red meat weaken the immune system leading to a higher incidence of cancer.

Alcohol consumed with red meat or fatty foods slows the liver's action of breaking the food down into combustible calories. Alcohol contributes to fatty liver and eventual cirrhosis. Two to three drinks of alcohol per day, day-in and day-out, even three to four times a week, slow down the conversion of fat in the liver. The liver will not be able to metabolize the fat in the food and will dispatch it to be stored.

Alcohol activates superoxide dismutase (SOD) resulting in the formation of peroxy nitrite that contributes to death of nerve cells. Leftover food generates nitric oxide (NO) leading to the formation of peroxy nitrite. This results in the formation of rogue oxygen free radical and nerve cell death. Alcohol consumption accelerates this phenomenon. You can exercise all you want. You can diet all you want. If you drink alcohol, you have undone all your good efforts.

### **FETAL ALCOHOL SYNDROME (FAS) AUTISM, ADHD, “CRACK BABY”**

A young woman drinking "in moderation" may not realize that she is pregnant in the first, two-three months post-conception by her boyfriend or husband, who for years has indulged in heavy beer drinking, has already endowed the fetus with “pickled sperm” which defects and contributes to abnormal genetic coding of the fetus. In the meanwhile, the fetus is being generously exposed to alcohol.

One ounce of alcohol is five times as damaging to the brain of the 36-week old fetus as to the brain of an adult. Fetal alcohol effect (FAE) and fetal alcohol syndrome (FAS) are the number one causes of retardation, ADHD, autism, CCD, cleft lip and palate, meningocele, and other forms of spinal and cerebral deformity.

Our study of children and teenagers born to moderate or heavy drinking parents has shown a high incidence of teenage crime, CCD, childhood and adult ADHD. The computerized electro encephalic (EEG) recording of such FAS patients invariably (over 70%) show suppressed electrical power spectrum and less generation of anterior frontal lobes of the brain. This area of the brain has the indispensable function of judgment and inhibition of explosive behavior. In this regard, these children act similar to patients suffering from neurosyphilis of the brain or repetitive head injuries - “Boxers syndrome.”

In about 15% of FAS patients, drugs other than alcohol contribute to further cerebral damage due to crack, cocaine, heroin, etc. All such drugs (alcohol, cocaine, crack, etc.) not only damage the formative brain cells, but cause severe malnutrition leading to a high rate of miscarriage, and extremely low weight newborns with high mortality, retardation, autism, etc., rates. More seriously, a combination of alcohol and other drugs (e.g., cocaine) augments explosive, impulsive and destructive behavior.

Tabloids such as Enquirer, etc., constantly bombard and brainwash their readers with junk, unscientific pseudo-facts such as "drinking alcohol in moderation helps the circulation," or "runners get more benefit from running if they combine it with alcohol intake." Alcohol kills the runners because of the toxic effect of alcohol on the heart muscle (myocardiopathy). Alcohol causes weak and enlarged heart muscle due to toxic effect causing a stressed inefficient heart muscle, and sudden death in young athletes (e.g., basketball players). I have lost a few of my physician classmates to premature death during exercise (tennis, etc.) the morning after a nice party and libation.

The long-term intake of alcohol is the number one cause of malnutrition damage to the nerves in the extremities, death of nerve cells in the brain (Alzheimer), and liver disease.

Alcohol thins the blood by reducing the platelet count of blood while causing a stroke and cerebral hemorrhage (17). A few decades of ethanol intake, lead to polycythemia (high red blood cells), liver failure, and tendency for fatal clot formation.

## **THE DRUG CALLED SUGAR**

Sugar is a newcomer in the history of human food intake. Whereas fruits and vegetables have been the sources of carbohydrates for millennia, the introduction of crystalline sugar to Europe goes back approximately over 300-years.

Historically, during unlimited millennia, the body has become capable of properly utilizing function from fruits and vegetables without stressing the pancreas. On the other hand, the surge of crystalline sugar (glucose) in blood requires the secretion of insulin from the pancreas to suppress the sugar. This causes a low blood sugar level, depriving the brain of the energy source of sugar. This leads to fatigue, poor memory, irritability, and agitation. This phenomenon is called the “sugar blues” demanding intake of more sugar.

The drug, glucose, causes reactive low blood sugar (hypoglycemia). It requires the mobilization of sugar from the liver or muscle and intake of more glucose. As such, it causes dependence (addiction), and tolerance (gradually increases the rising demand for sugar).

The 5-C’s (candy, cookies, chocolate, cake, and cocktail), white rice, as well as white-bleached bread, and potato, should be avoided to prevent sugar dependence (1). Replacement with fruits and vegetables, sugar substitutes (NutraSweet and other artificial sweeteners), whole-grain bread, wild rice, brown rice, sweet potatoes, beans, and legumes are the best defense against sugar addiction.

The sugar industry has brainwashed, flooded the media, and has misled the people by scare tactics against sugar substitutes. Indeed, less than 1% of the general population cannot tolerate the protein Aspartame®, causing nausea and headache. That is no excuse to avoid aspartame.

Sugar substitutes have played a major role in the treatment and prevention of diabetes.

Miss-information abounds regarding sugar substitutes. The media blitz has scared the people of aspartame-claiming the formation of formaldehyde in the body.

Aspartame is used in a dose of fewer than 10 grams. The formaldehyde formation from such a small dose is less than a few milligrams. However, one drink (one ounce) of alcohol produces way over 10 grams of formaldehyde. This concentration is 10-20 times stronger than the formaldehyde from one diet drink.

Aspartame is a protein. The breakdown of aspartame is formaldehyde. However, the amount of formaldehyde by-product is negligible. Alcohol intake, forms hundreds of times more formaldehyde (measured in grams, not milligrams). The surge of formaldehyde as a by-product of alcohol is so high it causes damage and death of nerve cells. Aspartame generates too little of chemical to be of any consequence. In less than 2% of the population, it can trigger headaches. Otherwise, it is harmless.

Another fad is the fear of cancer from artificial sweeteners. In animals, this issue can happen with doses a few hundred times larger than a regular dose of artificial sweeteners.

## **CARBOHYDRATES**

The word "carbohydrate" is misleading. It refers to both simple carbohydrates (e.g., sugar) and complex carbohydrates (e.g., bread or pasta). It is a rich source of calories. However, all calories are not created equal.

The simple carbohydrates (glucose) are second in importance (after alcohol) in the generation of quick, combustible energy. Whereas, the brain mainly needs sugar and oxygen to survive, simple carbohydrates are not "brain food." The ubiquitous sugar, which is present in practically every edible product the food industry puts out (pasta, cereal, etc.), is not simply a caloric problem. Crystalline sugar stimulates the pancreas to secrete insulin. After an intake of sugar, the blood sugar rises rapidly. This results in Insulin secretion which drops the blood sugar below a normal level.

Two to three hours after the sugar intake, relative hypoglycemia develops. This results in the secretion of adrenaline to mobilize the sugar from the liver. This secondarily causes a relatively high blood sugar followed by a further secretion of insulin. The roller-coaster highs and lows result in hunger pangs two to three hours after the sugar intake. This plays a major role in the development of obesity.

The complex carbohydrates in fruits and vegetables, which provide fructose, do not go through the above-mentioned process--instead, they produce a steady state of blood sugar state thus avoiding secondary hunger.

Not even all fruits and vegetables are alike. For example, grapefruit provides fructose along with being a rich source of magnesium and potassium. Magnesium curbs the appetite and calms the nerves down. Another example is cabbage--besides providing complex carbohydrates, cabbage is an excellent source of protein and calcium; it is considered the most well-rounded health food.

Complex carbohydrates are not likely to turn to fat, but provide a smooth and steady source of energy (calories). It is the fat that makes people obese, not complex carbohydrates because the fat has a more chemical complex, and is more likely to be stored for future use.

The body has a language of its own. The body doesn't feel as full of simple carbohydrates-such as alcohol and sugar--are consumed. It feels full of complex carbohydrates are consumed. Fat does not provide the ideal and proper satiety. Consumption of a significant amount of generic fat (such as butter, vegetable oil, oil in red meat and mayonnaise) results in the breakdown of lactic acid, oxidant-type chemicals, and brings on feelings of fatigue and hunger.

Phylogenetically, individuals with a higher tendency for the preservation of fat have been more likely to survive the harsh weather of cold climates. However, in modern life, exposure to cold is extremely brief, and exercise is virtually nonexistent. So, fat is the number one enemy. The only value that fat has lies in essential fatty acids and essential vitamins such as A, D, E, and K, and can be provided just as easily by a minimal amount of fat present in the seafood or olive oil.

If you are one of the unlucky predestined 10% of the population with a fat-conserving gene, then you should consider yourself allergic to fat. You can change this genetic tendency by eating frequently but eating the right type of complex carbohydrates (4-F's Diet: Fresh fruit, fresh vegetables, fish, and fowl) (1).

## **5. FASTING**

Fasting is a major contributor to obesity. A common habit is to skip breakfast or lunch. Anorexia and bulimia play a major role in the development of obesity. This is one of the cardinal sins, which results in weight gain. Skipping breakfast will result in a significant lowering of low blood sugar. The last time the food is consumed at night is usually at 6:00 or 7:00 pm. When fasting until noontime, the next day results in reflexive eating of junk food, binging or eating heavily at lunch or supper-time. The brain decides how much an individual is going to eat. It is not at all unusual for people who skip meals to sleepwalk and raid the refrigerator in the middle of the night. You can have all the good intentions of getting ready for your wedding four months hence by trying to lose weight but the more you skip meals, the bigger you will get. It is your brain that decides to compensate for skipping meals which are interpreted as starvation by the brain.

A final habit that should be dealt with is skipping meals or fasting to lose weight. When fasting and purging with the use of laxatives, it only provides temporarily weight loss. Simultaneously, such attempts stimulate the hypothalamus to secrete hormones to compensate for weight loss.

During the fasting month of Ramadan in Cairo, Egypt, the sale and consumption of groceries triples. This is because the hypothalamus considers fasting as a form of starvation-resulting in an astronomical rise in food and calorie intake when breaking the fast.

Skipping breakfast causes relative hypoglycemia with a secondary rise in serum renin as well as an increase in platelet adhesion reflected by high levels of Beta-thromboglobulin in blood.

The increase in renin contributes to hypertension and increases the risk of heart attack (18). The tendency for platelet adhesion due to skipping breakfast contributes to a high risk of stroke and heart attack (19).

When combining the fad of "thou shalt not eat before going to bed" and the bad habit of skipping breakfast results in a common modern-day habit of no food from 6:00 p.m., until noon the next day. This span of 18-hours of fasting is enough to cause low blood sugar levels during sleeping hours leading to restless sleep, less REM sleep, and aggravation of hypertension.

As for eating late at night, there is nothing wrong with eating healthy food before bedtime. But don't eat red meat, and don't consume alcohol before bedtime. Alcohol causes reactive hypoglycemia and stimulation of dopamine, renin, and fluctuations of blood pressure a few hours later. This fact increases the risk of heart attack and stroke during the night and before lunchtime. It is well known that around 9 a.m. to 11 a.m., the risks of heart attack and stroke are at their highest peak.

So, don't fast. Have a decent breakfast (no red meat). Fruits, cheese, and toast are ideal. Don't drink soft drinks (Coke, Pepsi, etc.) as substitutes for breakfast.

The habit of not eating anything after supper is unhealthy. It is wise to eat a small meal before going to bed. This snack should not include fatty foods, especially red meat--which also contains Tyrosine and causes nightmares and restless sleep--and definitely should not include any alcohol. It should be a comprehensive food, containing:

- Complex carbohydrates such as your favorite fruit (your favorite fruit is usually the fruit that your body needs and craves).
- Some form of low-fat milk or mild white cheese, and especially yogurt.
- A complex carbohydrate that stabilizes the blood sugar during the night (such as bread, rice, or pasta).

## **HORMONAL FACTOR**

Even when obesity is due to a genetic tendency, the influence is manifested through the hormonal system.

The brain uses an indefinite number of hormones to influence and control the human metabolism. For example, normal newborn rats can be fed a high-calorie diet, yet they do not gain weight. Conversely, when the same newborn rats are given electroshock treatment--slowing down the function of the frontal lobes, even with a normal intake of calories, the rats gain weight. The hormone cholecystokinin--which is thought to be the hormone that contracts the gall bladder causing it to secrete bile in the digestion of fat--has its highest concentration, not in the gut, but the frontal lobes of the brain. After electroshock treatment or a head injury or an electrical injury, where the frontal lobes are damaged, the level of cholecystokinin drops and the individual gains weight, even with minimal intake of calories.



It is a well-known fact that the majority of people up to age 30 or so can eat all they want and not worry about gaining weight. After age 30, they begin to notice that even with the same number of calories, they gain weight (see the role of hormone, cholecystokinin or CCK, in obesity outlined above in Chapter 7).

This issue is because aging reduces the number of nerve cells in the brain and reduces the hormones that keep the weight down. This becomes a major problem with the intake of alcohol, which accelerates the demise of the nerve cells.

Incipient hypothyroidism, or a hereditary bipolar depression, as well as perimenopausal reduction of the estrogen, are some common examples of the hormonal influences on obesity.

You can diet all you want, but if you have crash-landing menopause, and for some reason, you are not taking your estrogen, you are going to have difficulty losing weight. If anything, you are going to gain, even with the strictest of diets. In FAS and FAE individuals, depression, obesity, as well as cyclothymic-type of depression are quite common.

In the latter group of patients, if their red blood cells (RBC) level of Lithium is absent (due to defective cell membrane), treatment with Lithium can be a solution to obesity.

## **DRUGS**

Besides alcohol, addicting benzo diazepines (BZ) such as Tranxene (clorazepate), Ativan (lorazepam), Xanax (alprazolam), Valium (diazepam), Librium (chlordiazepoxide), Halcion (triazolam), Restoril (temazepam), etc., result in the arrest of formation of the brain's tranquilizers (endo benzodiazepines-EBZ) and result in inactivity, chronic fatigue, depression, and obesity.

Even the non-addicting drugs, such as old-style antidepressants (i.e., Tofranil (imipramine) and Elavil) play a major role in the development of obesity and fatigue. To treat a pain patient with Elavil may result in the patient gaining an average of 15 pounds of weight in the first year of taking this medication (9).

Next to alcohol and benzodiazepines, the most serious drug regarding obesity is addictive narcotics (Morphine agonists). Addictive narcotics inhibit the formation of natural endorphins. This results in fatigue, depression, and a withdrawal-type of pain. Long after the cause of the pain has been eradicated, the withdrawal pain will perpetuate the need to obtain medication. This vicious cycle causes inactivity, obesity, depression, and a reduction in sex hormones.

The standard medications used for the treatment of vascular headaches, being peri-menopausal, pre-menopausal, post-traumatic, or of any cause, are medications such as Fiorinal (with or without codeine), and Propranolol (ineral). Both of these medications result in depression, inactivity, and obesity.

The hormonal system can be stimulated to shed excess weight. This is accomplished by:

- Exercise
- Sexual activity
- Avoidance of drugs or alcohol

## VITAMINS

Taking vitamins is an admission of the guilt of eating a defective and unbalanced diet. The intake of vitamins promotes a false sense of security vitamins leads to a balanced diet. The fat-soluble vitamins (A, D, E, and K), in large doses, can kill by increasing cranial pressure due to water retention.

Whereas, fruits and vegetables prevent stroke and heart attack, substituting these foods with antioxidant drugs and drugs such as vitamins A or E tablets have no beneficial effect (7). Taking supplement vitamins in moderation is justifiable in people 60-years or older.

Junk food, eaters and excessive alcohol (especially beer) consumers, in the long run, tend to be deprived of vitamins B-1, B-complex, C, folate, and B-12. One important side effect of such vitamin deficiency in the above-mentioned individuals is the rise in Homocysteine level of blood. The homocysteine is a strong and direct risk factor to cause stroke and heart attack. The mortality rate in such patients is directly related to high levels of homocysteine in the blood. Any homocysteine level higher than 14 millimole per-liter is associated with a high mortality. Such individuals should take supplemental vitamins. However, the problem is that when the patient is a heavy drinker, the vitamin molecules are destroyed and the rate of absorption of the vitamins reduces significantly.

Moreover, Vitamin B-12 should not be prescribed to be taken by mouth because it becomes digested and useless. Vitamin B-12 is a combination of cyanide, cobalt, and protein (cyanocobalamin). It is only effective if supplied intramuscularly, or more importantly, it is only effective if it is naturally present in fruits and vegetables. No heavy drinker is apt to give himself a shot of Vitamin B-12. The same high-risk individuals also have low folate (folic acid) levels in the blood. A low level of folate in the blood is at the top of the list of causation for birth defects and deformities of the fetus.

In pregnant women who follow the grave advice of some gynecologists who tell them one or two drinks a day does not harm them, should take multivitamins and folate supplements and should realize that one or two drinks for the pregnant woman are equal to six to eight drinks for the small-sized brain of the fetus.

In a review done by Bostom et al, of the large Framingham Study revealed that along with smoking, diabetes, coronary heart disease, and a stroke, a high level of blood homocysteine was accompanied by almost twice as many incidences of strokes than the rest of the population (risk of 1.8) (20).

## PROTEINS

Proteins play a major role in weight control. The proteins represent the two extremes of stimulant diet (red meat: rich in Tyrosine) and the antidepressant diet: white meat, dairy products, and especially fish which contain Tryptophan, the precursor of serotonin. The ubiquitous serotonin has a different type of effects. The main effect of serotonin in the brain is an antidepressant and an appetite suppressor.

The assumption that everybody needs meat is far from the truth. The most successful athletic champions, in sports that require great endurance, are the ones who are vegetarian. There is a rich variety of proteins in the non-meat sources: Legumes, nuts, and grains are some of the richest sources of protein.

To evaluate the proteins as one homogenous group of chemicals is quite misleading and erroneous.

### **THE ROLE OF BIOFEEDBACK IN MANAGEMENT OF OBESITY**

The human brain, the same as Pavlov's condition dog, functions based on awards and punishment. The awards of a serving of delicious food or a glass of cold beer, calms down the cerebral stress of hunger, fear of the unknown, etc. Ever since early infancy, a French mother introduces the baby to the taste of wine. A farmer's wife may introduce the baby to the taste of buttermilk (milk without butter). The mother may introduce the child to the taste of a healthy home-made chicken soup vs. the unhealthy taste of the canned soup. A child is more likely to be hooked to sugar by the mother persistently offering the sugar instead of fruits. The same goes for conditioning the baby to consume butter or mayonnaise (false and unnecessary calories).

The above examples of conditioning the baby to certain foods or alcohol explain the fact that the child develops identical maternal eating habits. The child even becomes the mirror image of the obese mother. "You are what you eat," because you have been conditioned to identically like or dislike the same foods as your parents.

Certain instincts are so strong that may resist this form of conditioning: children, up to three to four years of age, prefer fruits over candies or cookies. Afterward, they are "consistently rewarded" with candies or chocolate, their taste change. To quote the famous song from the 1949 musical "South Pacific," "You have to be taught to love or to hate when you are six or seven or eight."

The balance between the instinctual function of hunger and satiety provides a steady-state of weight. Curbing appetite with diet pills is dangerous. It causes a disturbance in the hormonal function which in the long run, leads to obesity.

The key to biofeedback for weight loss is primarily to engage in exercises that provide a feeling of satiety. The name of the game is "aerobic" exercise. Isometric exercise--such as weight-lifting--increases the appetite, whereas aerobic exercises--such as running and walking--curb the appetite and provide a sense of satiety. A similar sense of satiety is achieved by sexual activity.

At the other end of appetite control is the biofeedback that curbs the appetite: a habit of eating four light meals a day, not fasting, not skipping meals, and eating foods that curb hunger (such as vegetables rich in fiber). Every time you reach for pastry or chocolate, induce a mental image of yourself over 100 lbs. heavier, consuming chocolate or pastry.

Foods that curb hunger are especially high in fiber, bulky foods such as cucumbers, various vegetables, and salad. Another type of food that curbs the appetite is grapefruit, which provides plenty of magnesium, along with fructose. The key beneficial ingredient in grapefruit is its pectin and its pulp. Grapefruit juice from concentrate does not achieve the same purpose. Concentrating the juice destroys the pulp of the fruit, and adds preservative chemicals that neutralize the nutrients and antioxidants.

## **DRUGS AND WEIGHT CONTROL**

The weight control measures outlined above, will not work unless there is an avoidance of using diet pills and alcohol.

As diet pills step up metabolism and curb the appetite, a temporary weight-loss ensues. The stress of this artificial weight-loss is severe enough for the brain to consider it a source of distress. The response of the brain to such distress is in the form of increased food intake to match the increase in metabolism. So, the patient who keeps taking diet pills not only develops depression, tachycardia, cardiac stress, irritability, and agitation but also will find himself suddenly bingeing to make up for the temporary food deprivation.

What makes the condition more serious is the fact that the patient's diet has not been balanced and has been lacking in essential proteins and vitamins. This causes a significant nutritional imbalance, with resultant distress and stimulation of the brain to counteract such an imbalance. The diet pills, contain stimulants, such as Ritalin (Methylphenidate), amphetamines, and some containing caffeine, cause a temporary poor appetite as well as messing up the higher cerebral function.

Coffee, in itself, is a contributor to obesity because of the acid oil present in the coffee (both regular and decaffeinated). The combination of coffee and diet pills becomes a serious stressor.

The pharmaceutical industry has been inundating the market with diet pills, all of which are stimulants of higher cerebral function. The majority of these dangerous drugs have caused enough death morbidity (e.g., Fen - Fen) that they have been withdrawn from the market. However, the ones that are still in use are just as dangerous.

Ritalin is being abused on a great scale. In the past 10-years, the consumption of Ritalin per capita in the United States has exceeded more than seven times than in the European continent.

This out of proportion use of the drug is nothing but a “cop-out” habit of the pediatricians to try to help the child become quite well-behaved and concentrating on schoolwork between 7 a.m. and 2 p.m... Afterward, the ADHD or CCD child, resumes their destructive, and antisocial behavior even worse than before the intake of Ritalin.

The reason for the drug being, so popular is that it is a strong stimulant of the frontal polar lobes of the brain. The frontal polar lobes of the brain have the important function of inhibitions. That is, the reason a dog is a human's best friend is that the dog has very few nerve cells in the frontal polar regions of the brain as compared to human beings. The dog has minimal inhibitory behavior because of the small size of the frontal lobe as compared to human beings. Whereas, the civilized human being utilizes the frontal lobe to control and manage their compulsive behavior.

Politicians use the frontal polar region of their brain to best use it by being so civilized that practically everything they say is nothing but a lie to short-change somebody and to deceive the electorate for their vote.

In the case of childhood hyperactive disorder, attention deficit, and CCD, the child has a dysfunctional frontal polar lobe of the brain for any of the following reasons: Improper diet loaded with chocolate and sugar, improper nutrition lacking fructose and tryptophan replaced by hotdogs, sausage, liver, kielbasa, and other similar poisons, or FAE and FAS. This refers to the fact that the frontal polar regions of the brain undergo replication and growth of the nerve cells in the last trimester of pregnancy. If the frontal polar regions of the brain do not develop properly and the child becomes out of control because of the loss of inhibitory nerve cells in the frontal lobes.

The use of Ritalin or similar drugs (amphetamines) does nothing but stimulate the inhibitory nerve cells in the brain for a few hours. This stimulation temporarily provides better concentration and better behavior. However, like any other stimulant, after a few hours, the brain goes through a withdrawal effect and becomes uninhabited because of the drop in the blood stimulant level in the brain. Then the child or teenager becomes a worse monster because of this yo-yo effect of drug withdrawal and drug intake. The same yo-yo effect also applies to the patients' weight. If the patient takes stimulants, or if the patient fasts, the food intake is suppressed and the endocrine system of the brain interprets this lack of food intake as a starvation phenomenon. Then, after fasting for any reason, and after withdrawal from the stimulant, the patient develops a horrendous appetite.

More importantly, the combination of stimulants and alcohol, which contributes to loss of inhibition, ends up causing severely uninhibited behavior with the child ending up raping the neighbor's eight- or nine-year-old daughter, or killing whoever comes in front of him be it in school or at home.

Everybody tries to find the answer for the mass murders in schools by blaming the media, but nobody blames the eating habits of the parents and the fact the father is the first person to introduce the child to drinking beer.

## **LESS HARMFUL DRUGS**

Regarding to amphetamines and other cerebral stimulants, the best thing is to avoid their use if at all possible. Instead, a combination of changing eating habits along with less harmful medications such as alpha-2 blockers and Catapres (clonidine) is taken at bedtime and the antidepressant Desyrel (trazodone) will do a good job in the improvement of behavior as well as in curbing excessive appetite. Trazodone provides good natural sleep at night, and as a result, the next day the patient is not fatigued and is not craving food.

Usually, with proper eating as outlined in this book, the patient who is underweight or overweight settles down to normal weight. However, certain diseases affecting the hormonal function of the brain and organs can play a role in the development of either obesity or pathological weight loss. Some examples are hyperthyroidism or surgical removal of the ovaries (obesity), and depression of any cause. A majority of patients who are depressed are overweight and the minority are underweight.

Any weight fluctuation of unknown cause should be evaluated for the possibility of the above-mentioned hormonal disease, as well as for cancer. If the patient is suffering from hot flashes and weight gain due to a gradual or sudden drop of Estrogen in the blood, then the patient should be treated with Premarin. Premarin is the true brand name and effective form of Estrogen. The synthetic Estrogen is not as effective. Other hormonal diseases should be diagnosed early and treated accordingly.

Regarding to depression contributing to weight gain, it is imperative that the patient starts exercising and starts taking proper antidepressants. Certain tricyclic antidepressants such as Elavil and Tofranil contributes to weight gain.

Patients who are started on Elavil can gain an average of 15 pounds of weight in the first year of taking this medication (9). By the second year and afterward, the patient usually has gained an extra seven to eight pounds of weight (9). Such antidepressants should be avoided because of the serious side effects.

On the other hand, Trazodone, and Desipramine (norpramin) are quite helpful to counteract depression and chronic fatigue, and secondarily to contain horrendous appetites.

Another drug that is quite effective in the treatment of obesity is coated aspirin (Ecotrin or Bufferin). This is only conditioned on the patient's tolerance to aspirin. For example, if the patient has gastritis or ulcers, it is not prudent to take aspirin. On the other hand, taking one to two buffered aspirin every morning not only prevents heart attack and stroke but also takes away the chronic pain due to inactivity or too much activity. The stress of pain and inactivity may result in chronic fatigue and compulsive eating. Aspirin prevents the pain and being an antioxidant reduces the severity of chronic fatigue. Aspirin is an excellent antioxidant and it helps prevent the breakdown of the tissues due to exercise and prevents the formation of nitric oxide hence preventing the development of pain after exercise. Anti-inflammatory medications such as Advil, etc., are not as effective as aspirin and result in even more side effects.

## **THE PREVENTION OF OBESITY**

In addition to a change regarding the type of food intake, and exercise, the obese individuals should become aware of the high risk for mortality related to their body-mass index. This index is measured by the individual's weight in kilograms divided by the square of the height in meters. A body-mass index (BMI) of more than 30 increases the mortality rate by 50-100% as compared to the people with a BMI of less than 25 (21). Unfortunately, the physicians are not aware of such a high mortality rate due to obesity, and the further the state of the art of medicine concentrates in chasing the obesity and treating the complications of obesity rather than prevention of malignant obesity with secondary high BMI index.

Approximately one-fifth of the U.S. adults carry a BMI of 30 or more (21). This index specifically points to malignant obesity regardless of sex or race. In contrast to the strong emphasis in patient education against smoking, there is no serious emphasis by the physicians in educating the patients regarding the fatal risks of obesity.

## **CHAPTER 9 FOOD AS A HEALER**

Food is a double-edged sword. The natural foods and a daily habit consisting of 4-F's Diet (fresh fruit, fresh vegetable, fish, and fowl), and avoidance of 5-C's (candy, cookies, chocolate, cake, and cocktail), not only reverses the obesity or anorexia and brings the weight back down to normal weight, but also prevents and corrects diseases such as diabetes, cancer, gout, hypertension, liver disease, and weakened immune system (1).

Obesity has been accelerated and has become an epidemic after World War II. The C-rations prepared for the soldiers consisted of canned foods with no nutrition other than sugar and fructose, and a lot of sausage, canned soup, which contains so many preservatives that it weakens the immune system (this may be the reason why my Mom's homemade chicken soup is so much healthier than Campbell's soup). At the time of war this diet which was quite practical and essential for the soldiers on the battlefield. The excessive sugar in the diet started a rapid increase in the incidence of obesity. The hotdog fed to the children in school as well as at home broke down the immune system. Children who eat more than four hotdogs a week have a 500% higher chance of cancer of the brain than children who eat less than three hotdogs a week. The major surge of sugar and chocolate in the diet rapidly increased the rate of hyperactivity, attention deficit disorder, and started an epidemic of chocolate addiction which is practically as strong as addiction to sugar, gambling, and even alcohol. The cigarette did its job due to cancer, emphysema, etc.

In the 1960s when I was going through neurosurgery training, I had to eat the hospital cafeteria food. Weeks or months would pass by without a single offering of fresh fruits or fresh vegetables. Fortunately, by 1970s the trend of eating properly started in California and spread to the rest of the country. This trend did not exclude the type of vegetables that have no nutrition and are a conveyer of pure fat (such as French fries and onion rings). French fries and onion rings comprise over three-fourths of the so-called vegetables that children and teenagers eat. They are not vegetables, but a carrier of an incredible amount of fat.

Amazingly, the newer generation after the 1970s started to become somewhat aware of the importance of proper eating. It is a miracle that even Wal-Mart provides a cornucopia of fresh fruits and vegetables. This grass-roots trend, with no thanks to any instructions from doctors, has started to have its beneficial effects by the definite story because the incidence of stroke is rising among younger women and men because of the rapid rise in consumption of alcohol, especially beer.

Even though doctors laugh at the correction of eating habits and diet for conditions such as severe chronic pain, the trend of time has started to influence the doctors' inflexible attitude and hopefully will join the rest of the population in implementing proper dietary habits for diseases.

### **FOOD AND DIABETES**

In patients with diabetes, hypertension, stroke, heart attack, and obesity, it is imperative to immediately and drastically try to correct their eating habits.

The earliest sign of diabetes is attacks of hypoglycemia. This issue precedes the excessive thirst and urination that develop with the onset of full-blown diabetes.

The bouts of hypoglycemia (low blood sugar) are the earliest sign of failure of the pancreas to provide a normal amount of Insulin to prevent attacks of high blood sugar.

The hypoglycemia should be treated with fructose (fruit juices and fruit), and with an intake of natural healthy proteins such as almonds. The intake of fruit juices that contain glucose (sugar) to counteract hypoglycemia is a grave mistake because the compensatory sugar intake causes another reactive attack of hypoglycemia.

Once the diagnosis of diabetes has been established, it is quite important to follow the following precautions and modifications in the food intake.

The best source of carbohydrates is complex carbohydrates such as vegetables, grains, beans, and certain nuts such as almonds. The complex carbohydrates such as multiple grains, beans, and vegetables provide a steady state of fructose in the blood and the gradual and slow breakdown of the complex carbohydrates provides a steady level of blood sugar. These types of carbohydrates are more natural for the body rather than crystalline sugar (5-C's) which causes sharp bouts of high and low blood sugar.

High fiber, foods such as grains, brown rice, multigrain bread can be quite helpful in keeping the blood sugar steady. Whereas, white and bleached bread and white rice should be avoided. The wild rice is one of the best forms of complex carbohydrates.

The next change in eating habits should be the avoidance of fatty foods. Excessive body fat makes it difficult for Insulin to provide normal amounts of sugar to the cells. Fat consumes calories for survival. Fat steals the sugar and makes the sugarless accessible to the end organs such as nerve cells or heart muscle cells.

The golden rule of not skipping meals and the important rule of having at least five to six snacks or meals a day are very essential in providing a steady state of blood sugar.

One of the common complications of diabetes is painful neuropathy (damage to the nerve fibers). This severe pain wakes the patient up frequently during the night. Every time the patient wakes up, the patient should have a proper healthy snack such as fruit and yogurt, or fruit and cheese, or any form of cabbage which is the best and healthiest food or natural sweets specifically honey. The source of honey must be directly from the honey growing farmers rather than the big food industries. The honey processed by the big food industry contains sugar which counteracts any immunological or dietary benefits of natural honey. The best form of honey is the honey that already has a lot of honeycomb in it. Not only the honeycombs reinforce the immune system, but they make it difficult for the food industry to add crystalline sugar to the honey.



As with any other dietary connection, exercise is essential in diabetes as well. Exercise should be intermittent, brief, and short of causing pain.

The combination of:

- High-fat.
- High sucrose.
- Alcohol intake.
- Lack of exercise is the easiest, way to become obese and to develop diabetes. The reversal of the above destructive factors is essential to reverse the process.

Every one of the above four mentioned contributing factors is enough to cause the failure of treatment.

Deviating from the above plan of treatment, and trying to take a lot of insulin instead, will result in irreversible damages-specially to nerves in the brain and extremities. The end-result is a very painful, prolonged, gradual death.

## **FOOD AND CANCER**

Three factors that play a role in cancer susceptibility.

- Alcohol
- Chemicals in processed red meat such as nitrites and preservative
- Nicotine and tar of smoking

Each of the above individually and in combination disturbs the integrity of the cell membrane and allows penetrating carcinogenic virus agents and chemicals into the cells. It is true that cancer, as with other ontogenetic immune diseases, is more likely to affect individuals with genetic susceptibility. However, this predisposition in and of itself does not cause cancer. It requires the presence of other chemicals such as synthetic "foods." On the other hand, cauliflower, broccoli, cabbage, celery, citrus, garlic, and cilantro contain chemicals that act as preventatives of cancer.

As published in the "Proceedings of National Academy of Science," vegetables such as broccoli contain the chemical--sulforaphane--which stimulates Phase II enzymes (22). These enzymes prevent superoxide formation by disarming oxidants before they damage the cell membrane and the cell DNA, thus preventing susceptibility to cancer (22).

## **DIET AND CANCER PREVENTION**

According to the 1996 issue of Scientific American, 70% of cancer cases can be prevented by a low-fat diet (30%), avoidance of nicotine (30%), and avoidance of alcohol (10%). Realizing that a lot of diseases blamed on nicotine (smoking) are also aggravated and masked by simultaneous drinking, this percentage of cancer prevention may be higher in reality.

Adding a routine habit of exercising, further improves the function of the immune system and helps prevent cancer (especially breast cancer).

One of the most malignant tumors is malignant melanoma. In the past two decades, the trend towards improving diet, reducing stress and aggressively treating cancers has made a major difference between the pattern of high mortality and morbidity to a pattern of improved morbidity and a significant reduction in mortality. Melanoma has been the best example of how the power of positive thinking, having faith to reduce stress, proper eating, and exercise, can save the patients' lives.

## **STRESS, IMMUNE DISEASES AND DIET**

Stress is divided into two categories (Table 5):

- Good stress (eustress), as exhibited in pleasurable exercise, sexual activity, and stressing images of enjoying your most favorite fruit.
- Distress, or harmful stress, as a result of inactivity, too much physical exercise, insomnia, depression, and the use of toxic products such as tobacco, alcohol, and improper diet.

Foods are divided into eustress (good) foods, and distress (harmful) foods. The 4-F's Diet: fresh fruit, fresh vegetables, fish, and fowl reinforce the normal immune function, and as such are considered as "eustress" (1).

Distress in any form disturbs the immune system. If the patient is already suffering from an abnormal immune system (such as MS), distress type foods aggravate the condition.

It has been shown that a diet high in saturated fats aggravates the condition in MS patients. It is only common sense to avoid distressing an already pathologic immune system with improper food.

**TABLE 5. STRESS AND FOOD**

	<b><u>EUSTRESS</u></b> <b>Food Type</b>	<b><u>DISTRESS</u></b> <b>Food Type</b>
	4 - F: Lacto-vegetarian and Seafood	Diet rich in red meat
<b>Fats</b>	Monounsaturated (e.g., olive oil)	Saturated (e.g., fat in red meat)
<b>Cholesterol</b>	HDL (fish oil)	LDL (animal fat)
<b>Amino Acids (Protein)</b>	Tryptophan (mild white cheese, yogurt, and fowl)	Tyrosine (sharp cheese, red meat)
<b>Carbohydrates</b>	Complex (rice, pasta)	Crystalline sugar and fructose
<b>Alcohol</b>	Maximum 1 oz per day: One-fifth of the population can't stop at that, so abstain	More than 1 drinks per day

**Eustress:** It is the reinforcer of a normal immune system function. Proper eating and exercise in moderation are essential.

**Distress:** Too much food, too little food, too much or not enough exercise.

### **FRESH FRUIT: THE FOUNTAIN OF YOUTH**

The fresh vegetables and fruits are the direct first step products of the food chain. The shrimp consuming the vegetable provides the meat as the second chain. The fish consuming the shrimp is the third chain. The shark consuming the fish is the fourth chain, etc. Each step deeper into the chain is a step far from nature. The fresh fruit is laden with antioxidants, fructose, and natural vitamins. However, even the fruit juice from concentrate is unhealthy due to the added preservatives: e.g., cranberry juice contains extracts of red ants, called fumaric acid. Moreover, the fruit juice from concentrate is devoid of the fruit pulp which is the main source of fruit nutrition; not to mention its fibers providing anticancer benefits.

In comparing a 35-year-old vegetarian to a 35-year-old meat, potato, alcohol, and cigarette consumer. Comparing the two, the non-vegetarian has at least 10-years more of wear and tear of their skin and body due to their eating and lifestyle habits.

## **THE MIRACLES OF GRAPEFRUIT**

Grapefruit is an excellent diuretic. Grapefruit has the properties of being:

- Diuretic (Magnesium).
- Antihypertensive and curative for high blood pressure (23).
- Magnesium-rich. Magnesium is a calcium channel blocker and normalizes nerve cell. Function preventing agitation and epileptic seizure (e.g., controlling alcohol withdrawal seizures).
- Grapefruit curbs the appetite and helps to reduce weight.
- Counteracts constipation.

Grapefruit juice from concentrate is not as effective (due to lack of pulp, and due to contamination with preservatives).

Grapefruit is also a potent inhibitor of the metabolism of calcium (acts as a calcium channel blocker used for heart and high blood pressure problems). It strengthens the effect of calcium channel blockers, as well as Cyclosporine, Halcion, and Seldane. It should not be taken simultaneously with such drugs. In the case of treatment with calcium channel blockers, the grapefruit or grapefruit juice should be used as either the sole calcium channel blocker or the grapefruit intake should be avoided. In the case of Halcion, nobody should be on such a dangerous drug anyway.

## **CHAPTER 10 THE IMBALANCED DIET**

Our modern diet is low in calcium, low in high-density cholesterol, fructose, tryptophan, and high in sucrose. It is high in fat, salt, nicotine, and alcohol. The end-result is osteoporosis and acceleration of aging (alcohol being the number one cause of Alzheimer's Disease).

There is a misconception that dairy products are high in cholesterol. Indeed, butter is loaded with fat and cholesterol. After all, butter is not nutritious. Eskimos may need butter. Others do much better without it. In contrast, buttermilk contains the lowest cholesterol content per serving compared to other dairy products and meat (Table 3). Buttermilk is the churned milk product minus butter. Since WW II, the consumption of buttermilk has dropped drastically. From colonial times 'till 1930s buttermilk was quite popular and frequently consumed. It was the favorite drink of Thomas Jefferson. Buttermilk is the healthiest form of dairy products, but for now, it is out of favor.

Mild (not sharp), low-fat white cheese, a rich source of tryptophan and calcium, is low in cholesterol in contrast with sharp and hard cheeses that are high in cholesterol and tyrosine.

The highest concentration of cholesterol is found in our traditional morning breakfast-sausage, bacon, and buttered toast. The highest cholesterol concentration is in liver the most-unhealthy food-full of uric acid, cholesterol, and saturated fats. Liver, in its harmful effects, is only matched by internal organ types of processed meats, such as kielbasa.

Foods with high concentrations of cholesterol do not make it bad. Seafood, which is a rich source of good cholesterol (HDL-high-density-lipid) and Omega-3, is a protective food against heart attack and stroke.

A generous intake of seafood raises the HDL level (percentage of HDL). Therefore, the percentage of the LDL level is reduced, thus protecting against heart attack and stroke.

## **CHAPTER 11**

### **THE ROLE OF FOOD IN DISEASE AND HEALTH STATES**

#### **FOOD AND ALZHEIMER**

Studies reported by Jarvik, et al, Japanese researchers Yoshitake, et al, and others Henderson, et al., show that alcohol, inactivity, high level of low-density cholesterol, low serum estrogen, and head injuries, are high risks for Alzheimer's (24-26).

Recent studies have shown the important role of neuroinflammation and neuro-immune function in the acceleration of aging, and premature death in Alzheimer's, head injury, encephalitis, and other irreversible damages to the brain. A normal brain is protected by effective membranes and barriers called "a blood-brain barrier (BBB), blood-spinal fluid barrier-or "blood CSF barrier," and "brain-spinal fluid barrier."

These three compartments, when intact, complement each other, and transmit chemicals across these barriers.

In contrast, if due to injury or stroke the blood vessels rupture into the brain, the strong acid component of the blood leaking to the brain tissue destroys the nerve cells, causes inflammation, and lead to the death of millions of nerve cell. The patient acts if suffering from a tumor or an abscess in the brain.

If the blood vessel ruptures in the spinal fluid, it acts as if bacteria have invaded the spinal fluid-causing a picture identical to meningitis (fever, severe headache, coma, etc).

The above destruction processes can evolve gradually due to the invasion of toxins to the brain (e.g., a severe "hangover"). Chronic lead poisoning, gas poisoning, carbon monoxide (air pollution) poisoning, alcohol and aluminum (beer can) poisoning, measles encephalitis, are some examples.

Boxing, football, repetitive head injuries due to a lifetime of drinking, falling, car accidents, child abuse (which is epidemic in alcoholic families), are other risk factors of the development of Alzheimer's or Parkinson's disease. Yoshitake's study showed the importance of inactivity, and not supplementing estrogen in the perimenopausal epoch in the development of Alzheimer's (25).

Once the BBB is set in, the accelerated death of nerve cells causes the formation of irritative chemicals that cause inflammation-followed by immune system scavengers attacking the dead, or practically dead, nerve cells and accelerating brain death. Aspirin and anti-inflammatory drugs slow down this process. Obvious avoidance of hot dogs, alcohol, and left-over foods can slow the process. So can exercise (mental and physical), and hormone replacement.

The APOE genes are abnormal in Alzheimer's, but are not the exclusive abnormality (27). These genes do not exclusively prove heredity. They may be as likely to be ontogenetic (acquired DNA defects).

We studied 83 cases of consecutive Alzheimer's patients, in which 45 suffered from excessive alcohol intake, 18 suffered from diabetes and multiple small strokes (7 of 18 had a history of heavy drinking), and 12 were due to head injury, and eight cases had miscellaneous causes. Alcohol played a major role in the development of Alzheimer's in this group.

## **FOOD AND PARKINSON DISEASE**

According to Hellenbrand, et al., patients suffering from Parkinson's eat a greater amount of raw or organ meat, more refined carbohydrates (sweets), drink more coffee and alcohol, and eat fewer fresh vegetables (28). Parkinson's disease is usually caused by trauma, vascular disease, or toxic agents. Food doesn't cause Parkinson's Disease, but toxic agents such as organ meat, alcohol, or heavy coffee consumption aggravate the disease.

## **FOOD AND SPORTS**

Any "couch potato" or tennis pro-should correct his eating habits to protect him-self from distressful effects of too much, too little, or erratic weekend exercise:

- No booze the night before. It depletes cellular potassium and magnesium levels of blood-resulting in weakness and intolerance of exercise. It plays a major role in sudden death among young professionals (especially basketball players).
- Avoid red meat the night before. It leads to poor sleep, and fatigue the next day.
- Eat a healthy breakfast rich in fresh fruits and dairy products (yogurt or mild white low-fat cheese). The fresh fruit stabilizes the blood sugar, and the dairy products rich in tryptophan increase the stamina and preserve a steady blood sugar. The red meat, in contrast, increases the tyrosine and adrenaline levels leading to attacks of low blood sugar and decreased stamina.
- Avoid Gatorade. It is rich in refined sugar-leading to reactive low blood sugar. It is rich in sodium (salt)-causing water retention, drowsiness, and early fatigue. Replace the Gatorade with fresh fruit juice. Sodium (salt) absorbs water at 70:1 ratio-causing drowsiness and fatigue.
- Above all, drink a lot of water during the exercise. Strenuous exercise causes dehydration. It is practically impossible to catch up with water loss during exercise-unless the water intake is increased in large volumes. You can never drink too much water in between games on a hot day.

Frequently cool off your head on a warm day by pouring cold water on your head. During exercise on a hot day, the cerebral temperature is elevated causing slow reflexes, sluggish mobility, and loss of stamina. Filling your sports cap with cold water, and pouring it on your head, cools off the overheated scalp and brain, helping the player to become more focused and to have more stamina.

Too many, lives are lost during sports activities such as jogging or tennis due to skipping breakfast, or due to improper eating and excessive drinking the night before.

In the first 24-hours after intake of a moderate volume of alcohol, there is an elevation of the formaldehyde level of blood. This toxic chemical causes cerebral edema and weakness of the muscles. Such a toxic effect doesn't help the stamina, strength, and endurance of the athlete.

- Do not drink soft drinks containing sugar before and during the athletic exercise. The refined sugar leads to reactive hypoglycemia in about two to four hours after the intake of the soft drink. This causes weakness, lack of stamina, and feeling of fainting.
- If you are planning to play more than one to two hours, carry fruits (or dried fruits) in your sports bag to supplement the lost energy. If you are involved in a series of tennis tournaments, or a tennis clinic, it is important to follow the above rules so that you can stay strong on the fourth or fifth set.

## **CHAPTER 12 THE TALES MY MOTHER TOLD ME**

I had a wonderful mother. She was a devoted, selfless and a giving human being. The tales my mother told me were different from the "conventional wisdom" tales. She was not a believer that eating liver was good for your health. She had a simple formula to classify foods under two categories: HOT and COLD. The hot and cold has nothing to do with the temperature but with the temperament of the food. This is an old Mediterranean-Chinese method of classifying foods. The "cold" foods have a gentle temperament and are less likely to excite. The "hot" foods are the opposite.

It was decades later when I studied nutrition and classified the foods under two groups: the 4-"F's," and the 5-"C's." The 4-F's stand for fresh fruit, fresh vegetables, fish, and fowl ("cold foods"). The 5-C's are the kind of foods summarized as "no MR. 5-C's": that means (no mayonnaise, no red meat), no candy, cookies, chocolate, cake, or cocktail ("hot foods") (1).

The protein in the "cold" or 4-F's category is mainly tryptophan, and the protein in the "hot" or "MR. 5-C" category is tyrosine. Tryptophan is the precursor of serotonin which is the best natural antidepressant. The tyrosine is a precursor of adrenalin and dopamine which are strong stimulants and stressors. So, if you want to be like a lion, hot and feisty, tearing your own heart to pieces, you resort to red meat. If you want to be peaceful as a lamb, become a vegetarian: eating 4-F's, fresh fruit, fresh vegetables, fish, and fowl (1).

The following are samples of some erroneous tales.

1. "Eat your liver. It is good for you. It builds iron, gives you energy, helps you grow, and makes you strong, just like Popeye the Sailor man." This could not be any further from the truth. In truth, the liver is probably the unhealthiest food in the carcass of an animal.

The body has the kidney as the latrine and the liver as the toilet. Liver, contains the highest cholesterol only next to kielbasa. Liver contains a lot of uric acids, and other degenerative and oxidative products.

It is loaded with Tyrosine; if it is consumed late at night, it can cause insomnia, nightmares, and agitation. There are better sources of iron and nutrition such as legumes, nuts, etc.

It is no wonder that children hate eating liver probably because the greatest dietician, nature, God, instinct, or anything you want to call it, has taught the children to stay away from that kind of food.

2. "Thou shalt not eat food before you go to bed." This is another nightmarish tale. Usually, dinner is consumed around 6 p.m., and breakfast, if the fast is broken, is around 7 a.m... So, the individual goes 13-hours without consuming food. Halfway between the two meals, somewhere around 1:30 a.m. to 2:00 a.m., the blood sugar hits the bottom. The brain is in the recuperative stage of sleep. The nerve cells need all the energy and glucose to repair and recuperate for the next day's stressful assault of life. However, the blood sugar is at its nadir and the individual is having nightmares, restless sleep and poor REM (Rapid Eye Movement, the healthiest stage of sleep). This is also the time when most of the so-called "social drinkers" have reactive hypoglycemia secondary to stimulation caused by the alcohol consumed the night before. The alcohol burns in the first few hours of sleep and leaves reactive hypoglycemia along with adrenalin and insulin secretion. Therefore, the blood sugar drops even further, and the body develops a severe lack of sugar which means a lack of oxygen to the nerve cells with secondary stroke and heart attack during the night.

The opposite of this is the correct advice: Make sure to eat before going to bed. Make sure you don't include drugs such as coffee, chocolate, tea, and other stimulants before you go to sleep. Make sure you don't eat red meat and 5-C's (1). The best food to eat at bedtime is a combination of three foods: bread or cereal, dairy products, and fruits. The dairy products provide the tryptophan as the best antidepressant and sleeping pill; bread and fruits provide the fructose and complex carbohydrates to keep the blood sugar steady.

3. The third big lie is "There is no difference between chocolate, coffee, or tea. They all contain caffeine." These three groups of drugs have caffeine in common. Otherwise, they are three harmful substances. Chocolate has an amine called phenethylamine (PEA). This substance is gram per gram as strong and as stimulating as cocaine. It is classified as an upper and is quite addicting. It raises the blood pressure, stimulates the heart, drops the blood sugar and is a strong irritant and stimulant. It counteracts fatigue and depression temporarily hence the magnetic drive for the chocolate towards this substance.

Coffee has an acid oil base that raises the gastric acidity and secondarily causes a rise in adrenalin and insulin. As a result, two to three hours after consumption of coffee the blood sugar drops with the craving for more food and coffee.

Tea is not just one drug, but many different kinds. The most dangerous ones are the herbal teas that contain all kinds of toxic chemicals.

4. The next popular concept is "Two drinks a day is good for your health." This concept was originated by studies in the 1970s that compared teetotalers with heavy drinkers and "moderate" two drinks per day individuals. These studies consistently showed that heavy drinkers were dying right and left from a heart attack, stroke, and cancer. The next group with significant mortality was the teetotalers and the group with the least mortality was the two drinks a day group. However, these studies did not take into account that one-third of all the teetotalers are AA members. They have been smart enough to stop drinking but even then, they are succumbing to their habitual years of generous drinking.



Alcohol is caustic in any amount. It causes oncogenicity, or deformity of the fetus, in any amount. It is a stimulant in small amounts and severely depressant in large amounts. It is the cause of more than 70% of cases of diabetes and hypertension.

5. The next misconceptions are: "Cholesterol is bad"; and "Cheese has a lot of cholesterol." High-density, cholesterol is not harmful and is essential as a framework for soft tissues in the body. The foods that are rich in high-density cholesterol such as seafood and shellfish, protect against heart attack and stroke. White cheese is not high in protein. Sharp cheese is harmful because of high cholesterol and high tyrosine content.

6. The sixth tale is "Gatorade is a healthy drink." If during a sport activity, a person becomes quite distressed and develops either hypoglycemia or fainting due to a low concentration of potassium, Gatorade can be a first-aid treatment. Otherwise, Gatorade is quite unhealthy because it contains salt and sugar. The best way to protect against harmful electrolyte disturbance and fainting spells is to take the following steps:

- Have a healthy breakfast before going to the tennis court or gym but exclude crystalline sugar intake.
- Eat plenty of fruit or fruit juice before starting your workout.
- Do not drink alcoholic drinks the night before you exercise.

Drinking alcoholic beverages, the night before strenuous exercise causes the disturbance of sodium-potassium pump and calcium channel function and can cause sudden, fatal heart attack during exercising. One branch of professional sport - basketball - is high risk for excessive drinking and it is no surprise that some basketball players die suddenly on the court.

7. Another misconception is "If you have low blood sugar, eat sweets such as candy or cookies." People who have a tendency for repetitive hypoglycemia are not infrequently pre-diabetic. Sweets convert a repetitive hypoglycemic patient into a full-blown diabetic.

Not all carbohydrates are created equal. The fructose and complex carbohydrates provide a steady blood sugar level. Crystalline sugar (5-C's) and alcohol cause erratic levels of blood sugar (1). It is the peaks and troughs of blood sugar that cause attacks of hypo-and hyperglycemia and predispose the individual to become diabetic. If an individual has the tendency for hypoglycemia, they should consume fruits, fruit juices, and a diet rich in complex carbohydrates.

8. "My child is not a drug addict, he only drinks beer." Of 100 substance abuse addicts, 85% are alcohol addicts, 10% are prescription drug addicts and 5% are street drug addicts.

9. "I don't want my child to use any drugs." They use this as an excuse that unjustly deprives patients of their essential medications, such as anticonvulsants and antidepressants.

Antidepressants are not the same as tranquilizers or sleeping pills. They are the treatment of choice for chronic pain, and for detoxification of patients who are alcohol or prescription drug addicts.

## CONCLUSION

Instead of counting calories and falling prey to fad diets, it would be advisable to go through behavioral therapy to develop good eating habits. Think of harmful foods as deadly poisons to reinforce your fear and hatred towards them.

Avoidance of processed red meats which are rich in saturated fats and chemicals that disturb the immune system and emphasis on 4-F's (fresh fruit, fresh vegetables, fish, and fowl) foods normalize the immune system, aiding in the prevention of cancer and similar diseases (1). This is essential in the management of a stroke, heart attack, cancer, MS, allergies, asthma, dermatitis, diabetes, chronic pain such as (CRPS), and any form of addiction. Also, the avoidance of alcohol and the 5-C's (candy, cookies, chocolate, cake, and cocktail), not only helps reverse obesity, but it also helps maintain a proper weight.

Proper eating habits and exercising is vital to living a healthy life. One thing we tell all my patients is don't diet. Change your eating habits! It might just save your life.

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**DON'T DIET: CHANGE YOUR HABITS-PROPER EATING FOR GOOD HEALTH**

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**Doctor Hooshang Hooshmand, dedicated his life to medicine (Neurology), teaching, and caring for his patients for over 40-years. He had a special interest in the management of Reflex Sympathetic Dystrophy (RSD), and other neurological conditions such as Multiple Sclerosis (MS), Epilepsy, and Electrical Injuries. He had written and published more than one hundred medical articles and abstracts on the subject of Reflex Sympathetic Dystrophy (RSD).**

**He also had written the first Textbook on Reflex Sympathetic Dystrophy (RSD)(1993).**

**He had a great passion for writing on many medical topics such as RSD, Cerebrospinal Fluid Pressure, Topographic Brain Mapping, Electrical Injuries, Thermography, and including this book on Diet. He had made many landmark contributions to medicine over his 40- year career.**



**Eric M. Phillips is President of the International RSD Foundation in North Dighton, MA.**

**He has worked in the RSD-CRPS community for over 31 years and has published and co-authored over 20 medical articles and abstracts with Doctor Hooshmand on the subject of RSD-CRPS.**

**He has also co-authored a book on Complex Regional Pain Syndrome (CRPS) (2020).**