

FOURTH EDITION

Weight Mastery: How to Reshape Your Body with EASE



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Preface

The information in this booklet can be a powerful tool for you to take control of your life. Modern patterns of diet and activity create a tendency to being overweight and undernourished at the same time. Uncorrected over time, such a pattern can lead to reduced health, diminished vitality, and shortened life below its potential.

Weight Mastery provides a highly condensed summary of several key areas related to losing weight and improving fitness with ease. Using these tips can help you feel and look much better. Even if other programs have not worked for you, armed with a bit of knowledge you can tailor a plan that works ideally for your lifestyle.

To assist you, Weight Mastery comes with a self-scoring system called the EASE plan. The E stands for Eating patterns, A for Activities, S for Supplements, and E for Excellent Endeavours, slight lifestyle shifts that can reward subtle actions with visible benefits. The EASE plan permits you to gauge your starting level, and then adjust your activity to the pace of the progress you desire.

If you use this plan consistently, you are highly likely to succeed. It is strongly recommended that you do at least 21 consecutive days of self-scoring to establish new patterns that can make weight loss easy to achieve and simple to maintain.

You are encouraged to pass this booklet along to others you feel may benefit from it. Not only can you take large strides to shrink your waist and improve your health, you can assist others as well. Your own success may prove to be the best way to assist those close to you to make shifts that serve them, through the inspiration you will provide and become.

How to Reshape Your Body with EASE

Although supplements may promote, support, and facilitate fat burning, other lifestyle factors contribute significantly to how fast and how well the body will be reshaped. The timing, quality, and quantity of food, the level and kinds of physical activity, and other habits have a great impact not only on melting off fat, but also on achieving higher and greater levels of fitness and well-being. In addition to having a trimmer fitter body, we heartily support the goal of putting more activity and living in your life.

This EASE plan summary derives from many sources of information about fat and energy metabolism in the body. It emphasizes how you can master your physiology using basic principles. A complete program will be presented which will permit you to score your achievements from week to week to find the level you must reach to be able to achieve your goals. This will help you to personalize a program that will allow you the greatest flexibility of approach consistent with a plan tailored to your individual tastes and targets.

The key elements of this system are presented as parts of the EASE plan. The E stands for Eating, as the timing and composition of your food and fluids is the essential core of this program. A stands for Activities that accelerate fat burning and increase fitness. S is for Supplements that may be required to initiate fat burning and that can make your weight loss goals much easier to reach. The second E stands for Endeavours to change habits and mental attitudes that can make weight loss faster and much easier to sustain.

The EASE plan may make it possible for the first time in your life to actually lose weight without hunger and keep the weight off. Although the EASE system requires discipline and application to achieve your goals, it is vastly easier to sculpt your body on a plan that works in harmony with your body's natural hormone balance and cycles. If you used other programs that made you feel constantly deprived, hungry, and fatigued, you likely regained the weight quickly because the program was in conflict with the way your body works. The EASE plan is designed to give you every advantage including hormone shifts you can achieve easily with a little knowledge and action.

The definitions of EASE that apply in the context of this plan are as follows:

- 1. The ability to make progress with a minimum of effort, suggesting the capacity to adapt quickly and as needed.* This plan will give you a scoring system that will permit you to increase or modify the rate of your fat burning and body sculpting progress as you choose.
- 2. Simplicity of achievement gained through understanding of correct principles.* The first myths to unlearn are that fat is bad and carbohydrate is good for weight control. On a 1000-calorie high carbohydrate diet, weight loss may be minimal and hunger can be constant and intense. In contrast, a 1000-calorie high fat diet has been shown to burn 88% more fat deposits than a strict fast – with little or no hunger.
- 3. Luxurious and filled with zest.* It is absolutely essential that your food choices are delicious, varied, and enjoyable to make it possible to create a long-term plan that will be fun to maintain.

The objectives of this program are to give you a powerful integrated system to burn off excess fat; preserve and build muscle mass, and increase overall fitness levels. Food composition, quality, and timing factors will be the starting point, as incorrect patterns in these may require much effort to overcome. Second, we will describe how aerobic exercise helps to burn fat and increase aerobic capacity, and how anaerobic muscle building activities help greatly to increase fat burning and make maintenance of weight loss much easier. Third, there are often dietary deficiencies which need to be corrected before efficient fat burning can occur, which are most easily remedied by focused supplementation. Finally the use of your mind, mental pictures, and attitudes are the link that completes the circle for the ultimate program.

Several resources were drawn upon to create this summary. Many thousands of pages from medical texts, mainstream books, and numerous articles are distilled in this report.

During my first year of Medical School at Johns Hopkins University, I participated in an advanced elective in nutrition. During my second year, I had the privilege of a one on one tutorial with Dr. Simeon Margolis, one of the nation's leading authorities in fat and cholesterol metabolism. I was astonished to learn that in rabbit studies, the most harmful substance that could be consumed to cause arterial blood vessel disease was the sugar fructose, not fat. As I have observed the proliferation of "health drinks" flavoured with high amounts of concentrated fructose syrup, it has become clear that nutritional research may be long unheeded until the revelatory data is "discovered" overnight. The purpose of this booklet is to give you the advantage of information now that can make achieving your goals of sculpting and fitness much faster than by waiting until you happened upon the keys to success by happy chance.

The backdrop for this summary is the experience of intensive clinical work advising, exhorting, and pleading with patients to lose weight to control and improve their medical conditions. Almost all of it was futile until the use of the most recent information. There is nothing like seeing an overwhelming failure rate transformed to a majority success rate to rethink positioning on the gospel of weight loss strategies. Successful weight control is one of the most powerful ways to reduce medical risks, prolong life, and improve quality of life.

My personal insight into the key hormonal factors regulating weight gain and loss became most acute during my medical internship. The third week of my internship at Georgetown University I counted over 120 hours working and stopped counting after that. Somewhat startlingly, in the eleventh month of the program, during the simple act of bending forward, the zipper ripped out of my pants!

Getting to the bottom of this shocking situation I got on a scale for the first time since I started the internship and found myself 20 pounds heavier than I had ever been. I then made the connection that drinking 12 or more cans of Coca-Cola a day to keep me going through call days and nights could be contributing to this problem. Stopping the use of the sugar laden Classic Coke resulted in a prompt 10 pound weight loss without changing any other factors. A simple change in pattern of sugar consumption resulted in dramatic improvements in body composition, the observation that is the launch point for sharing this summary with you.

Weight Mastery

Hormonal Mastery Pathways:

The unifying message of my experience with simple sugar loading (50 grams of sucrose per can) and a broad range of recent literature is that sugar consumption is a far greater factor in weight gain and an inability to lose weight than is fat ingestion. The reason that sugar is the central key to weight gain and loss is the effect that sugar has on blood insulin levels. Consuming carbohydrate, either complex carbohydrate like sweet potato starch from which sugar is released slowly or simple sugars like the sucrose blast in Coca-Cola, causes the pancreas to release insulin. **It is insulin that commands the cells of the body to store fat, especially the fat cells themselves.**

This section will review the evidence that for you to achieve complete command over your weight and body fat you must control your insulin levels. You can reach this mastery through the composition of your diet and the other elements of the EASE regimen. Setting your insulin levels and sensitivity in an optimum zone will also help reset related hormonal balances and can have far reaching benefits on your health and vitality.

If you have any underlying health conditions you are advised to check with your health practitioner before starting any new program. It may be necessary to adjust levels of medication as blood pressure, insulin requirements, and diuretic needs may decrease or be eliminated once effective fat burning begins. Your health care providers should follow you as closely as they deem fit for you to have the very best results.

If you have struggled with your weight for years, losing some painfully and fretfully, and gaining it right back, this information may prove most enlightening. It may even save your life, or at least prolong it by modifying and reducing disease risk factors through your prudent use of food and newfound control of your weight and body composition. This summary will review the ways you can lose weight simply, easily, and deliciously while creating a complete program that increases your fitness, vitality, and wellness.

With the effect of carbohydrate ingestion on the key hormone insulin, we will explore how what you eat alters hormone balances in the body, especially with respect to depositing versus burning fat. Hormones are powerful command molecules that are released from cells to direct the activities of other cells. The components of the EASE programme will enable you to readjust the balances of your hormones and gain dominion over your weight to the degree you determine.

Almost all obesity is perpetuated by metabolic factors. Obese persons often do not overeat and gain weight on fewer calories than persons who are not overweight. The popularly promoted low-calorie, low-fat diets provide sustained weight loss only 3-5% of the time for reasons that will become clear.

In simplest terms, **it is carbohydrate, in all its forms, that is far more important than dietary fat in contributing to weight gain, difficulty in losing weight, and rapid regain of weight after it has been lost.** The simpler the sugar and the more

of it ingested, the faster and higher the release of insulin from the pancreas. Insulin is the hormone the body uses to promote sugar entry into the cells, and if the level is excessive several detrimental effects may occur.

An overly high blood insulin level may cause too much sugar from the blood to enter the cells, lowering the blood sugar level too much. This is called hypoglycaemia (from 'hypo' – too little, 'glyc' – sugar, and 'emia' – in the blood). Since the brain requires a minimum blood level of its preferred sugar, glucose, to function, hypoglycaemia can cause abrupt and debilitating symptoms. A typical episode can result in shakiness, cold sweats, headache, extreme fatigue, and intense hunger and sugar cravings. The low blood glucose is corrected either by consuming one or more simple sugars or by the body mounting an intense hormonal stress response to raise the glucose level.

If simple sugar is ingested, insulin is again released in excess to repeat the cycle of hypoglycaemia and the counter-reaction all over again. If blood sugar is brought up through release of stress hormones, a state of insulin resistance occurs. This means that a higher secretion of insulin must occur to achieve the required effect of getting the normal amount of glucose into the cells. Either mechanism can provoke a path of escalating insulin levels coupled with increasing insulin resistance. If this pattern is not interrupted it may evolve into adult onset diabetes with all of its debilitating consequences.

The problems associated with excess insulin in the blood are myriad. The swings in insulin levels and degrees of insulin resistance can make blood glucose regulation increasingly erratic. Blood sugar can fluctuate from excessively high to symptomatically low in a dwindling spiral of hormonal imbalance.

The ultimate effects of sustained high blood insulin levels can include the development of high blood pressure, elevations of blood cholesterol and triglycerides, and the progression to diabetes. All of these factors increase the risk of cardiovascular disease. Dietary carbohydrate excess is a far greater risk to the heart, brain, and blood vessels than is dietary fat.

In addition, as outlined in great detail in Dr. Barry Sear's *The Anti-Aging Zone Diet*, abnormal insulin balance can disturb the action of several other hormones. He especially reviews the effects on impairing the fine micro hormonal tuning of a class of powerful hormones called eicosanoids. This loss of fine tuning can cause sex hormones to work less effectively, contributing to sexual dysfunction, diminished action of growth hormone, accelerated aging, and altered chemical balance in joints contributing to arthritis. The regulation of the immune system may also be significantly impaired. Elevated blood sugar of itself has been found to stun the mobility of white blood cells, reducing their ability to migrate through tissue and clean up foreign invaders and tissue debris.

The current epidemic of cardiovascular and degenerative diseases may be intimately related to the vast increase in the use of refined sugar in the last century. In 1828, the average annual consumption of sugar in the U.S. was 12 pounds per person. By 1990, the average intake had soared to 137.5 pounds per year.

Cardiovascular disease was almost unknown before the turn of this century. The Cleaves Rule of 20 Years asserts that diabetes and heart disease will be rare in a culture until the introduction of refined sugar; after a lag time of 20 years the incidence of diabetes and attendant cardiac and vascular disease rises sharply.

The pitfall of refined sugar is the removal of the nutritional cofactors – vitamins, minerals, and trace elements - that would naturally be present in the plant from which the sugar is derived. These cofactors help to modulate the effects of sugar in the body by providing the factors needed for the complete metabolism of the sugar. Without these cofactors the sugar is too rapidly absorbed, which results in an excessive spike of insulin secretion. Thus the cofactors are drained from other pathways of metabolism to complete the internal processing of the sugar.

In the United States, adults consume approximately 450 grams of carbohydrate per day, about one third of which is in the form of simple sugars. It is these refined simple sugars that create the greatest metabolic problems with sugar highs and lows in an ongoing roller coaster of blood sugar and insulin swings.

The other form of carbohydrate, found in starches and fibrous vegetables, is composed of simple sugars joined into complex strings and chains, hence the name complex carbohydrates. During digestion, the larger chains must be split off one-by-one into simple sugar units. This process slows the rate absorption of sugars into the blood. The slowed rate of entry reduces the rate and amount of insulin secretion. Of the choices of carbohydrate that may serve in the diet, complex carbohydrates are much better for body physiology than are simple sugars.

The term glycemic index refers to the rate at which an ingested carbohydrate results in the entry of simple sugars into the blood. The more rapidly and the greater the amounts of sugar that enters the blood, the higher the glycemic index and the greater the excess of insulin release that may occur.

The highest glycemic index is from simple refined sugars, such as table sugar and high fructose corn syrup. The next highest is from the simple but cofactor replete sugars in naturally sweet foods such as fruit. The lowest glycemic index is found in complex carbohydrates. Of the complex carbohydrates, the glycemic index is intermediate in starchy foods such as potatoes and the best in salad greens and fibrous vegetables such as broccoli and cauliflower.

The lower the glycemic index of the carbohydrate ingested, the less the degree of insulin disturbance that may occur. For a given daily intake of carbohydrate, shifting to a lower glycemic index may help to stabilize blood sugar and reduce insulin resistance. This may improve the tendency toward sugar highs and lows and reduce the health hazards of excessive insulin levels.

The most powerful method to bring insulin into an optimum balance and the central core of this body-sculpting program is carbohydrate restriction. Reducing the quantity of carbohydrate consumed has been shown to lower insulin levels and correct problems related to disturbed insulin regulation. Reduced insulin levels have been associated with sustained weight loss, reversal of cardiac disease, and even improvements in degenerative diseases. Symptoms of hypoglycaemia may melt

away giving more stable physical and mental energy and emotional reserves throughout the day.

The primary form of obesity associated with insulin excess, where excess fat accumulates around the waist, may also be alleviated with carbohydrate restriction. This effect is not merely cosmetic. This so-called “central obesity” is strongly associated with increased risk for serious heart disease.

According to the experience reported in *The Dr. Atkins New Diet Revolution*, over 25,000 persons achieved a greater than 90% success rate with a low carbohydrate dietary regimen. In his cardiac clinic, Dr. Robert Atkins observed reversal of heart disease symptoms in over 85% of his overweight patients. Diabetic patients on medication had superb results, with 98% of patients who had been taking oral medication able to get off the medication completely. Even half of the adult onset diabetics requiring insulin were able to get completely off of insulin. It is also suggested that low carbohydrate ingestion may have an anti-cancer property, as tumour cells tend to preferentially subsist on sugar.

Before reviewing some of the studies that relate degrees of reduced carbohydrate with metabolic benefits, it is important to keep in mind that optimum health and fitness is not only about burning off excess fat, but also building muscle mass and improving physical endurance. Weight loss is always best assessed in terms of the change in overall body composition.

A ten-pound weight loss may reflect 15 pounds of fat lost and five pounds of muscle gained which is vastly better for well being than if five pounds of fat and five pounds of muscle have been lost. It is strongly advised that you find a measure not just for weight loss but also for changes in body composition.

Very reasonably priced digital scales are now available that give a reading of weight as well as electronically measure percent body fat. This gives you a fast and simple way to track your lean muscle and fat weight, so that as your weight changes you can assess how much fat has been burned off and whether muscle mass has shifted, preferably in the direction of gain.

In the situation of fat loss being roughly equal to muscle gain, although weight remains about the same, muscles are stronger and firmer and more toned and fat inches melt away. These changes in appearance are due to muscle being more dense than fat. In this scenario, there is a loss of inches rather than pounds. You can use a fairly precise measure such as recording over time the number of inches around your waist, thighs, hips, and upper arms to assess your progress. A less exacting ballpark measure is whether your clothes fit more loosely or your clothes sizes are decreasing.

As reviewed by Dr. Atkins, Young’s study of overweight young men showed the profound impact of limiting carbohydrate on the fat burning and muscle sparing success of a nutritional regime. All participants consumed 1800 calories per day. Of those who were held to 104 grams of carbohydrate per day, average weight loss was 2.7 pounds per week, of which 2 pounds per week was fat. On a 60-gram carbohydrate restriction, weight loss increased to 3 pounds per week with 2.5 pounds per week of fat lost. In the group that ate the least carbohydrate, 30 grams per day,

not only was weight loss boosted to 3.73 pounds per week, the lost weight was nearly entirely fat. Thus on the same caloric intake, the highest degrees of carbohydrate reduction not only nearly doubled the fat burned off per week, but almost no muscle mass was lost.

Benoit's study compared the results of strict fasting – no calories at all – to a 1000 calorie, high fat, 10 gram carbohydrate diet. The fasting subjects lost 21 pounds on average over 10 days, but only 7.5 pounds of the weight lost was from fat. Thus, although the results on the scale looked good, there was a drastic toll of losing 13.5 pounds of lean body mass. In contrast, the subjects on 1000 calorie, high fat very low carbohydrate diets lost an average of 14.5 pounds, of which 14 pounds were fat. On 1000 calories compared to none, nearly twice as much body fat was burned away and vastly less muscle was lost. Extreme restriction of carbohydrate intake was far more powerful for burning fat and preserving muscle than was extreme caloric restriction.

Young and Benoit's studies underscore the consistent observation that low carbohydrate diets spare lean muscle mass. This aspect is essential to achieving optimal health and well being. It is muscle and other vital proteins that provide fitness and function and the potential for the full enjoyment of life.

Muscle mass is a biomarker, a measurement that relates closely to physiologic age. A loss of muscle mass on a diet signifies an acceleration of aging, whereas sparing or building muscle relates to slowing and even reversing biologic age. Low calorie high carbohydrate diets can cause the sunken cheeked, sallow skinned devitalized appearance of muscle wasting weight loss.

The Anti-Aging Zone Diet drives home the message that diet composition with a reduced carbohydrate level, ingested in ideal balance with proteins and fats, has powerful muscle preserving, anti-aging, and disease reversing properties. Author Dr. Barry Sears further asserts that diet strategies can be used to extend the human life span to an entirely new range of possibilities. Not only does he describe life prolongation, he reports the methods for achieving far greater health, function and vitality during those added years. Diet composition is the cornerstone of a program that includes exercise, lifestyle habits and attitude.

An optimum low carbohydrate diet is necessarily rich in high quality protein, salads, and non-starchy vegetables. The fat content can be high, medium, or low, though it will tend to be higher than on a high carbohydrate, low fat diet. Numerous studies reviewed by Dr. Atkins emphatically indicate that *low carbohydrate diets are highly effective at lowering cholesterol and especially triglyceride levels*, thereby suggesting reduced cardiac and vascular risks.

The most important distinction is that in a reduced insulin environment that results from carbohydrate restriction, the body chemistry shifts to a fat burning, fat clearing state. This transforms the fate of dietary fat from being predisposed to form excess body fat and blood vessel deposits to being used as a concentrated fuel. In addition, the body tissues become less resistant and therefore more sensitive to the effects of insulin, further lowering the tendency for excessive insulin secretion.

According to Dr. Atkins, 40% of middle aged women may need to reduce carbohydrate intake to less than 30 grams per day to be able to burn fat. A big bowl of pasta or rice, shunning cheese or butter, has been incorrectly viewed as a sound equation to lose weight. Instead, the excessive intake of carbohydrates may make it almost impossible to achieve the desired weight goal or sustain it.

Of the various specific diet programs currently being promoted, Dr. Atkins has the plan that has worked most consistently for me personally and for my clinic patients. The Zone Diet, by Dr. Barry Sears, makes compelling arguments but lacks many of the ease factors of the Atkins Diet, and may not provide sufficient carbohydrate reduction for more metabolically resistant persons. Other programs are largely variations along similar themes or have a low fat focus with poor likelihood of long term maintenance.

To initiate a fat burning state in almost anyone, Dr. Atkins recommends a two week induction period at no more than 20 grams of carbohydrate a day. This level equates to three cups of salad greens or two cups of non-starchy vegetables (like brussel sprouts, broccoli, and cauliflower) or a single slice of bread. To achieve this tight restriction during the first two weeks requires cutting out essentially all breads, pasta, rice, and starchy vegetables like potatoes and corn, fruits and sweets.

The simplicity of this program is that those foods that may be eaten can be consumed without limitation. *Unrestricted foods include all meats, poultry, fish, shellfish, eggs, cottage and low carbohydrate cheeses, butter, cream, salad herbs, and spices. Unrestricted beverages include water, decaffeinated beverages, herb teas, club soda, and seltzer water.* Restricted but recommended are salad greens and non-starchy vegetables that are begun at modest levels and adjusted in intake depending on the response to the overall program.

Three advantages make it possible to have unrestricted consumption of the chosen items. Firstly, fat and protein foods, without sugar, are self-limiting in binge potential. For example after the third or fourth hard-boiled egg, yet another does not usually seem too appealing. In contrast, most people have at some time managed to consume large portions of pie, cake crisps or biscuits. Secondly, very low carbohydrate diets shift the body into a state of fat burning ketosis that strongly inhibits appetite. Thirdly, in the low insulin fat burning state, the body may excrete ingested fat rather than storing it.

The low insulin state results in lipolysis (from 'lipo' – fat and 'lysis' – to dissolve) or the breakdown of fat from fat cells. Lengthy fatty acid chains are chopped up into smaller molecules called ketone bodies. If these are not burned as fuel, they may be eliminated in the urine and stool. During lab experiments that compared typical diets to carbohydrate restricted diets, the excretion of unused calories has been found to increase from 10% to 36% by reducing carbohydrate intake. This is the main reason that more fat per calorie is burned off on a low carbohydrate diet – unburned calories are excreted rather than being stored.

The state of increased levels of ketone bodies in the blood due to a moderate calorie, low carbohydrate diet is called benign dietary ketosis (BDK). Animals in BDK have been found to excrete a hormone known as fat mobilizing substance (FMS) in

the urine. If FMS is purified and injected into an animal not on a diet, the animals burn fat and become leaner as though they were on a diet.

Within 48 hours of strict carbohydrate reduction most persons will enter the lipolytic state. Physical and physiologic benefits of a lipolysis-initiating regime include stabilization of blood sugar and greatly reduced sugar cravings. *Most persons experience a marked decrease in appetite*, so that even though the allowed foods may be eaten freely, there is a strong tendency to a reduced food intake without hunger. Metabolism shifts from a sugar burning fat storing state to a fat liberating, fat burning state. Food allergies and addictions may also lessen.

To test whether the lipolytic state has indeed been achieved, test strips can be obtained which measure for the presence of ketone bodies in the urine. If the strips show a positive result, this is strong assurance that fat is being burned effectively. This permits a method of monitoring the intensity of the lipolytic state as well. The best time for measurement is early evening before dinner, as the response tends to be the most intense at this time.

After the two-week period of initiating the fat burning state, the program can be adjusted as you choose. The level of ketones in the urine can be used as a measure of the briskness of the lipolytic state that lets you monitor how you respond to incremental increases in carbohydrate consumption. In addition, you may follow your weight, inches, and percent body fat to track how well you are doing.

It is also recommended that you check your blood tests for fasting blood sugar, triglycerides, and HDL cholesterol, LDL cholesterol, and total cholesterol to be certain you are succeeding with your program. Typically, the triglycerides and “bad” LDL cholesterol will drop significantly and the “good” HDL cholesterol will remain fairly steady from a carbohydrate restricted diet. Other aspects of the EASE program may further reduce triglycerides and unfavourable cholesterol fractions and help raise the protective HDL level.

In the system Dr. Atkins espouses, he calls the first two weeks of the program the induction phase. Next follows an ongoing weight loss phase in which carbohydrate is incrementally added back to the diet as the effect on weight loss and ketone excretion is followed. A person of average metabolic resistance will usually lose 2-4 pounds per week during the induction phase followed by a drift to a lower level of weekly weight loss. During the ongoing weight loss phase, at weekly intervals the daily carbohydrate intake is increased at 5-10 gram increments. The carbohydrate intake level at which weight loss stops sets the threshold level below which to keep intake to continue fat burning.

Once the carbohydrate level at which you can achieve continued weight loss is determined, you can regulate the rate of further weight loss by the degree to which you keep carbohydrate intake below the threshold. As the ASE elements of the EASE program are brought in, these may also increase the degree of fat burning for a given carbohydrate intake level, as well as raise the threshold at which fat burning will continue to occur. It is not as important that you burn fat rapidly as it is that you evolve a new pattern of eating and activities that you can sustain.

It is important to have a clear target you are striving to achieve; this will permit

you to adjust the rate of your plan as best suits you. You may choose to have a more liberal carbohydrate intake and slower progress or push forward quickly. Of overriding importance is that you enjoy your food choices and feel well and vibrant during your plan.

You may be amazed that you find that hunger and cravings no longer plague you as you continue to reduce. The energy and mental clarity may be well beyond any you have felt on previous diets. Swings in mood and energy that occurred before the plan may settle and disappear. Even minor aches and pains not usually associated with diet may begin to ease. Diabetics must monitor their blood sugar closely to be able to lower medication levels with their doctor's supervision as medication requirements drop. Blood pressure may lower quite nicely and for those being treated for hypertension this may also warrant adjustment of medication doses by their health practitioner. Close follow-up is important for those with medical conditions.

This program should not be used during pregnancy or by persons with significantly impaired kidney or liver function. Occasionally, persons will feel fatigued during this program which may be due to a tendency to excrete extra potassium and magnesium during the lipolytic state. This can be remedied by slowing the program with increased carbohydrate consumption in the form of salad greens and non-starchy vegetables to restore electrolyte and mineral levels.

When you have neared your target it is important to slow the rate of your program. It is best to shed the last 5-10 pounds over at least 4-8 weeks. This is the zone Dr. Atkins refers to as the pre-maintenance phase leading to a regime that can be sustained for life. During this phase carbohydrate is increased to adjust weight reduction to a slow rate. This will help you determine the amount of carbohydrates you can consume and sustain your gains for long term success.

The number of carbohydrate grams that cushion a soft landing to your target for maintenance is the level likely to keep you at your chosen weight. When you have achieved your goal celebrate your success as you have applauded yourself every pound and landmark along the way. You may incrementally increase your carbohydrate intake until you find the threshold above which you begin to gain weight. This will give you a clear intake range in which you are likely to maintain your desired weight – below which you lose weight and above which you start to gain weight.

The Dr. Atkins New Diet Revolution and The Zone Diet provide breakdowns of the number of grams of carbohydrate for many foods. Sugar Busters will also help you to determine the carbohydrate content of foods, as well as give you a clearer understanding of glycemic index, an indicator of how foods which contain carbohydrates affect your blood glucose levels. Protein Power echoes the message of the merits of a protein rich diet and The Anti-Aging Zone Diet reviews in detail the numerous health and hormonal benefits of bringing insulin levels in balance with other hormones through the use of diet.

It is vital to note that a single large carbohydrate binge may reverse your progress for a week. The tidal wave of absorbed carbohydrate shoots insulin secretion back up to levels that activate the fat storing mechanism. This may lower the number of carbohydrate grams you can consume and still burn fat.

For each person there is a particular relationship between levels of carbohydrate consumption and weight gain or weight loss. Below a threshold, the body will naturally burn off fat due to low insulin body chemistry. Above a certain level, fat will tend to be stored. The specific levels at which these shifts occur vary from individual to individual, and within the same individual depending on their degree of metabolic resistance. A highly resistant person gains weight at low carbohydrate intake levels.

A weight loss program that effectively lowers insulin levels and burns fat can reduce metabolic resistance. Correction of nutritional deficiencies can also greatly reduce metabolic resistance. Food composition and timing factors, thermogenic (heat generating or fat burning) nutrients, aerobic and anaerobic exercise, and habit and attitude shifts can all help to reduce the degree of metabolic resistance.

The degree of metabolic resistance carries enormous importance for the ability to achieve and maintain ideal body weight and composition. Once again, carbohydrate intake and the response to given levels of intake is the key to determining where an individual fits in this spectrum.

The highly resistant person, a pattern typical for the very overweight person or a person who has difficulty losing weight and who readily gains it all back and more, has very narrow carbohydrate windows. In these persons, carbohydrate restriction must be extreme to be able to lose any fat at all, stable weight is maintained within only a very narrow window of low carbohydrate intake, and weight is gained at a relatively low carbohydrate intake threshold. This is the classic picture of the person who truly eats “like a bird” and remains very overweight.

The person of average metabolic resistance levels has greater flexibility in their ingestion ranges. More modest degrees of carbohydrate reduction will initiate fat burning, and a wider range of carbohydrate grams may be consumed without weight gain. However, if the person of average resistance exceeds thresholds and begins to gain weight, this can cause a trend to increasing degrees of resistance.

Persons of low metabolic resistance have the best of all worlds. They can consume a fairly wide range of carbohydrate grams and sustain their desired weight, since somewhat high carbohydrate levels may be consumed before weight gain occurs, and weight loss occurs easily with modest dietary shifts. These are the so-called high metabolism persons who can eat large quantities of food and seem to remain slender and fit with great ease. The goal is to become one of them or to get as close as you can get. Low resistance has many pluses.

The rest of this discussion of the complete EASE program details many means of reducing metabolic resistance while burning off fat, preserving and increasing muscle, and improving fitness. Fringe benefits of these actions may include shifts in blood chemistries that are associated with reduced health risks and greater longevity, improved physical and mental energy, and looking and feeling a whole lot better than you may have in years. The daily scoring for the EASE program allots relative values to your actions that may lower insulin levels (and increase insulin receptor sensitivity), reduce appetite and sugar cravings, or increase basal metabolic rate.

The scoring system will give you feedback about your current metabolic condition. If you reshape to your desired body composition easily at a low total score, you will probably find it fairly easy to maintain your condition. If you have to push your scoring to moderate levels to achieve fat burning and loss of weight or inches you will have a clearly defined set of options for intensifying your program to get the desired results. In time you will be able to correlate your actions with the goals you achieve weekly to make your progress predictable. Further, you may find that after you have achieved your goals a lighter regime will permit you to maintain your ideal level of weight and fitness.

Nonetheless you will be well advised to remain attuned to your carbohydrate threshold. According to Dr. Atkins, maintenance carbohydrate intake levels for persons who persist as highly resistant are 25 – 40 grams per day, for average resistance 40 – 60 grams per day, and for low resistance 60 – 90 grams per day. If this is compared to the average American intake of 450 grams per day, it is clear to see that excessive carbohydrate intake is rampant and is associated with the high and increasing prevalence of obesity.

The Anti-Aging Zone Diet describes the balance of proportions of protein, fat, and carbohydrate in the diet felt to optimize the relationships between insulin and other hormones. Specifically, the author recommends that at any given meal or snack, of the calories that are consumed, 30% are from fat, 30% are from protein, and 40% are from carbohydrate. The proposed benefits of this balance include not only weight loss but also age reversal, prolonged life, increased resistance to disease and improvement in medical conditions. Although the author presses for a “one ratio fits all” plan, it seems more likely that adjusting the plan to individual resistance levels may best locate the ideal “zone” for that person. In particular, for highly metabolically resistant persons, the degree of carbohydrate restriction may not be sufficient for efficient reduction of body fat, especially if diet alone is the only method of metabolic modification used.

Each of the subsequent sections will give you ways of scoring metabolic points to help you adjust your body fat and composition to your personal ideal. Many are very simple subtle changes that can make a huge difference in how you look and feel and perhaps how long and well you live.

As you select your favourites, each added point gives you a greater edge for success.

Food Choice Availability

Unless you are amongst the most extraordinary and disciplined persons in the world, convenience matters – a lot. If the proper foods for your program are readily at hand whenever you choose to eat or snack, it will be vastly easier to stay on the program.

You may be quite shocked to find that when you reduce your sugar and starch intake, your diet seems far healthier than you ever imagined. As you cut out carbohydrates, you may start to realise that junk food has vanished from your diet. High carbohydrate fast food fixes are also often high in fat, so overall fat consumption may be much reduced as junk food jettisons. As you dine on salad greens, non-starchy vegetables, nuts, cheeses, nutritious oils, and quality cuts of meats, fish, and shellfish, you feast robustly.

Tasty food that pleases you is of the utmost importance to create a plan that you can stick with for your long-term program. A wide variety of interesting food, flavours and menus enrich your palate and increase your likelihood of success.

Have the foods that you like in your refrigerator, your pantry, your car, your office, your gym bag, your pocket, or anywhere else you happen to be. By creating an environment in which the foods that best serve are readily available (especially if those that don't serve aren't), you will be going a long way toward achieving your weight loss targets permanently.

High quality foods that increase your energy and sense of well being are essential. Many processed foods have been denuded of vitality and nutritional cofactors. These devitalised, pasty, insulin-elevating sugar, fat, and chemical preservative laden dietary bricks may give temporary taste satisfaction while causing the body to deplete cofactors from other pathways just to handle the sludgy morass that must ooze its way through an indignant digestive system.

It is advised that to the degree possible your food is fresh, high quality, unprocessed, free of chemicals and hormones, and organically grown or raised on soil rich in minerals and trace elements. To the degree that the food you eat is nutritionally rich, there is less inclination to overeat, which may be indeed an adaptive response to attempt to get enough of what the body actually needs.

A little forethought and planning can keep you from being cornered by hunger and circumstance into eating foods you would prefer to avoid. If you are to attend a function you might ask whether the fare will be consistent with your plan, and if not perhaps ask for an accommodation, or eat what you like just before or after the event. With airline travel, ask ahead for a special meal or bring snacks with you to give you an alternative to the in flight food (salted honey roasted peanuts do not comprise a perfectly composed and balanced meal).

Advance meal planning may also help assure that your pantry is filled with choices that support your program. While it is extremely easy to dine out on this plan, you may find that by working out a menu at home, your food expenses drop whereas food quality increases. As you become more conscious of your food choices and observe the benefits for you personally, you become armed with inspiration to create your best long-term program

Avoid Prolonged Hunger

You may have tried diets before that rationed every ounce of food you could consume, and you found yourself barely satisfied after you ate and ravenous before the next meal. This pattern of deprivation creates the metabolic conditions that favour rapid weight gain as soon as you revert to your previous eating habits. The body reacts to a starvation program with the chemistry of attempting to store as many calories as possible. Due to the extreme hunger so common with these regimes, they rarely succeed for long.

The upshot is the seeming paradox that hunger is best avoided on fat burning body-sculpting programs. The next few sections will further reinforce the importance of this principle. Any plan that carries with it the experience of constant semi starvation and constant hunger is not only poised to implode at any moment, it is not fun, and is a discipline heavy on efforts and light on rewards.

By far the greatest dietary surprise you may ever experience is the marked reduction of appetite that occurs with highly restricted carbohydrate intake. You may eat all you like, whenever you like, as long as you consume food with little or no carbohydrate. After the first two days, while the body is undergoing a metabolic shift to fat burning, you will likely find that you have relatively little hunger throughout the day. Gone are the hunger and the energy and mood swings you may have experienced on other diets. You become empowered with the ability to remain on a program that helps you reshape your body and maintain your new ideal once it is achieved.

As you approach your target weight you will gradually increase your carbohydrate intake. Complex carbohydrates of low glycemic index will help you avoid the roller coaster of blood sugar and insulin swings, and bring you into maintenance balance. The more you improve your metabolic status, the less you will be adversely affected by simple sugar ingestion. This is especially true if you add protein and fat in ratios as suggested in The Zone Diet to slow the rate of sugar entry and to lessen insulin swings.

Fruit is a bit of a wild card as you develop the phases of your individual plan. Fruit is generally nutritious with good levels of vitamins and cofactors for assimilation. On the other hand, fruit usually has a high content of simple sugars that are somewhat rapidly absorbed. Early in your reshaping, especially if you have a long way to go, it is best to avoid fruit intake. As you approach and reach your goals, fruit intake can be increased with care, particularly as a light snack along with other foods.

Artificial sweeteners are a metabolic double-edged sword. They provide a flavour boost without a major carbohydrate load, but may have several effects opposed to the desired outcome. Artificial sweeteners may not only increase hunger, they can increase insulin secretion. Further, they may lower serotonin levels in the brain which may increase hunger and sugar cravings, impair sleep, and depress mood. There are additional putative health hazards associated with aspartame that are under investigation, so this sweetener in particular is best avoided.

Therefore, it may be best to use artificial sweeteners with moderation rather than the mainstay of taste support. For those who like the flavour, agave syrup and xylitol are natural concentrated sweeteners that can serve as a sugar substitutes

Food Intake Timing

Matching food ingestion to the natural shifts in body metabolism is a powerful tool to improve your metabolic status. Eating food early in the day as opposed to later has far greater benefits than would be guessed. For the same levels of caloric intake, food consumed late in the day is more likely to be stored as fat and cause weight gain than food consumed early in the day. This phenomenon has been clearly demonstrated by isocaloric studies.

“Isocaloric” means that everybody in the study consumed the same number of calories each day. In the key study, the fairly liberal level of 2000 calories per day was allowed. The only variable between the study groups was whether the calories were consumed earlier in the day or later in the day. Those who completed their daily eating by early evening lost weight on 2000 calories per day. In contrast, those who ate late meals gained significant weight at the same intake level. The difference between the average weight loss in the early eaters versus the weight gain in the late eaters was an astonishingly high at 2.3 pounds per week. On a calorie for calorie basis, eating early in the day tends to result in weight loss and eating late in the day tends to cause weight gain.

By the same token, skipping meals tends to lower basal metabolic rate and backfires as a weight loss strategy. Most notably, missing breakfast creates a tendency to eat bigger higher calorie meals later in the day and also shifts the body toward a fat storing state. Late dinners of heavy caloric content promote a physiologic state geared to fat storage. Furthermore, big meals late in the day may reduce appetite the following morning, increasing the likelihood of skipping breakfast and perpetuating the cycle of food timing that predisposes to progressive weight gain.

Skipping lunch or having very late lunches produces similar adverse shifts in eating too late and too much. To the degree that hunger becomes severe or prolonged, the body will shift to a starvation-like fat storing state with a hormonally driven tendency to overeat. Your mother was right – it is wise to eat your breakfast and your lunch.

The optimum time to sit for dinner is between 5PM and 6PM. Consistent mealtimes earlier in the day help to keep the body shifted toward a fat burning rather than fat storing state. Extremes of hunger are a cue that meals are too delayed and may thwart rather than assist weight loss actions.

Gorging Gives Grief

Overly large meals also shift the body into a fat storing physiology. It is suggested to keep each individual meal's caloric content below 700 calories to prevent insulin spikes and attendant fat depositing extravaganzas. Snacking as needed to prevent prolonged hunger is advised as the counterbalance to eating smaller meals.

On carbohydrate restricted programs, it is strongly advised that you eat whenever hunger occurs, regardless of the time of day. The reduced appetite that occurs with carbohydrate restriction limits meal size. In addition, the kind of high carbohydrate gorging that can readily occur with cookies, cakes, and ice cream almost never occurs on high protein fare. Most persons will only eat so many hard-boiled eggs or slices of turkey even on a dare unless sugar is in the food mix. Satiety sets in with low carbohydrate meals before enormous quantities of food can be eaten. Even with a seemingly large low carbohydrate meal, feeling overstuffed almost never occurs.

Fast food meals tend to provide the combination of food elements best suited to accelerate weight gain. A regular soda or shake, each of which has a very high content of refined sugar, is combined with fries or other high fat foods. This swings the body into a high insulin state at the same time that a large fat load is provided to be swiftly stored in fat cells. Caloric content is usually high and the sugar load assures that hunger will ensue shortly after the immediate bloat abates, when elevated blood insulin levels cause plummeting blood sugar values.

The greater appetite suppression on very low carbohydrate programs like the Atkins system or The South Beach Diet may make it easier to reach your desired weight targets and body composition than the higher carbohydrate intake allowed on The Zone Diet. For highly metabolically resistant persons, the Zone Diet may allow too much carbohydrate to lose weight easily. The maintenance level of the Atkins program may approximate Zone levels of 30% fat, 30% protein, and 40% carbohydrate calories once the desired weight reduction has been achieved and metabolic resistance has been lowered.

The Dr. Atkins New Diet Revolution, The Zone Diet books, and Low Fat Living all extol the virtues of suitable snacks. Eating a snack even at bedtime prevents hunger and helps maintain the body inclined to burn off rather than store fat. A late afternoon snack can give a second wind when the body tends to go into a lull. This helps to keep metabolic rate up and helps avoid overly large dinners that can set your program back a week or more.

The best snacks are either high protein or, as allowed by your progress, non-starchy fibrous vegetables and salad greens. Nutritious cold pressed oils are also permitted for enhanced flavour and palatability. Such snacking will help you to sustain your best fat metabolising physiology.

Dietary Fat Choices

Although many persons will benefit from shedding excess fat pounds, it is of the utmost importance to realize that fat is not the enemy. The body requires certain kinds of fat for specific uses without which the body could not survive. The issue is restoring the right kinds of fat in the correct places in the optimum proportions; only in the ideal balances can the highest health and well being be achieved.

Many areas about fat chemistry and function are poorly understood. The following brief series of questions invites you to explore your level of fat physiology awareness. The answers that follow may give you a set of tools that can help you use dietary fat to your best advantage.

- What kinds of fat are needed for survival?
- What types of fat may promote weight loss?
- Which essential fat is most prone to dietary deficiency?
- What fats are most suitable for cooking?
- How much cholesterol does the body require?
- Which fats are the most hazardous to health?
- How can you best determine your dietary fat sensitivity?

Dr. Robert Erdmann's *Fats That Can Save Your Life* provides a superb description of the science of dietary fat. The answers to the first three questions all relate to a class of fats known as essential fatty acids (EFA's). These are the fats the body cannot itself make and without which health declines and survival is threatened.

Up to 60% of the fat in the brain is composed of essential fatty acids. The two main classes of EFA's are Omega-3 and Omega-6 essential fatty acids. There are many dietary sources – vegetables, nuts, meats, and others – that provide fairly good levels of Omega-6 EFA's. However only a handful of foods are rich in Omega-3 EFA's, yet the body requires a roughly 1:1 ratio of Omega-3 to Omega-6 for optimum function. Many, if not most American diets are likely to be deficient in Omega-3 EFA content.

The richest natural dietary source of Omega-3 EFA is flax oil. It has the highest ratio of Omega-3 to Omega-6 of any food, roughly a 3:1 level. This helps to balance the preponderance of Omega-6 in most other foods that may exceed Omega-3 by as much as 10-50:1. The next best dietary source of Omega-3 is cold water fish such as salmon, haddock, and cod. The Omega-3 to Omega-6 ratio in salmon is about 1.5:1. Other foods that are a good source of Omega-3 are walnuts, sunflower seeds, and pumpkin seeds.

Essential fatty acids are highly unsaturated. The degree of unsaturation refers to the number of double bonds in the elongated carbon chain of a fatty acid. EFA's have at least two double bonds and may have as many as six double bonds in a chain typically of 18-22 carbon atoms. The greater the number of double bonds, the lower the melting point temperature and the less likely the fat will solidify in the body in undesirable places like arteries. EFA's help to keep fat melted and can lower triglyceride levels.

EFA's are used to make very powerful hormones in the body. Optimum ratios of Omega-3 to Omega-6 help to assure an ideal balance of these hormones that

regulate blood vessel tone, bronchial tube diameter in the lungs, and immune and many other functions. EFA's are good for enhancing brain performance and are listed as super foods for the brain.

Dr. Johanna Budwig, a leading researcher in EFA chemistry, has suggested that some people overeat fatty foods in an attempt to relieve EFA deficiency. She has found that many persons will lose weight if given 1 – 2 tablespoons of flax oil per day. At higher intakes, she has used flax oil to remedy arthritis and other major diseases. She advises mixing the flax oil with one half cup of low fat cottage cheese or yogurt to provide sulphur rich amino acids that optimise the results.

Monounsaturated fats have a single double bond in their structure. Even a single double bond lowers the melting temperature to yield oils at room temperature. Examples of monounsaturated fats are olive, canola, and macadamia oils. Reduced rates of heart disease have been associated with the intake of dietary olive oil as used in Mediterranean dishes. If you are frying food, the monounsaturated oils provide the best balance of fluidity and stability for cooking.

Polyunsaturated oils are highly reactive as the multiple double bonds readily combine with oxygen and other molecules. This reactivity is essential to their high biological activity and value. On the other hand, they are susceptible to oxidation into free radicals if exposed to excessive heat, light, or air. It is very important to receiving the highest benefit from EFA's that they be produced by cold pressing followed by refrigeration and storage in opaque airtight containers. It is also recommended that Vitamin A and Vitamin E be taken with EFA's to prevent their oxidation before the body uses them to promote the best results.

Flax and other polyunsaturated oils may be used for salad dressings and as nutritious additives if they are kept cold and consumed shortly after their use in food preparation. They should never be used as cooking oils because their susceptibility to oxidation is too great. Extra virgin cold pressed olive oil is the top recommendation as monounsaturated cooking oil.

With all of the red flags and health cautions that have been raised about cholesterol, it is often overlooked that cholesterol is necessary for health and is a key component of cell membranes. Cholesterol is a component of bile made in the liver and released from the gall bladder that plays an important role in the digestion and assimilation of dietary fat. Cholesterol is also the starting point for the synthesis of major hormones in the body such as oestrogen, progesterone, and testosterone.

Cholesterol is so vital to basic cell biology that the body will manufacture 1 – 2 grams daily in the liver. To some degree as dietary intake occurs, the liver will reduce the amount it produces so the right amount of cholesterol is made available to the body each day.

The health hazards of cholesterol are more related to metabolic problems than to ingestion levels of cholesterol. The two main forms of blood cholesterol are Low Density Lipoprotein (LDL) and High Density Lipoprotein (HDL) cholesterol. The term Lipoprotein refers to blood transport forms that combine fat (Lipo-) and cholesterol with a matrix of protein.

LDL is a form of cholesterol that circulates in the blood and can deposit in arteries depending on the metabolic conditions. The risk of cardiac and major blood vessel disease increases with the level of LDL cholesterol if abnormally elevated. The so-called good HDL cholesterol, that can remove cholesterol from arteries, balances and opposes this tendency. The higher the HDL and the lower the LDL cholesterol, the less likelihood a person has of developing cardiovascular disease. Studies have even shown reversal of cardiac and vascular disease if the cholesterol levels and ratios are improved.

The single most controllable factor in having the optimum metabolic state for cholesterol is, once again, the insulin environment. Elevated insulin levels tend to increase LDL cholesterol and predispose to worsened LDL: HDL ratios. Excessive carbohydrate ingestion, especially of very simple sugars, is a greater hazard for risky cholesterol profiles than is dietary fat and cholesterol.

Carbohydrate restricted diets have consistently shown reductions in total and LDL cholesterol, reducing cardiac risk levels. Exercise, a potent reducer of total and LDL cholesterol, while raising the beneficial HDL cholesterol, also acts to lower insulin levels and improve tissue sensitivity to insulin.

Saturated fatty acids have carbon chains without fluidising double bonds. This makes them stable but they are also prone to aggregate in clusters that can have adverse health effects if they deposit in the wrong places like blood vessel walls. The shorter chains are more fluid at body temperatures and are less likely to cause health problems. Butyric acid has a very short length of four carbon atoms. Butter, from which the name derives, is composed mostly of the short chain fairly fluid butyric acid. Of the saturated fats, butter is among the easiest for the body to metabolise. As it is also stable to heat, butter is among the best alternatives to monounsaturated oils for cooking.

If you are using butter it is advised that you be physically active afterwards as the body readily burns it for energy. If not used directly for energy, butyric acid will be converted to longer chain saturated fats in the body.

As the chain length increases, fats tend to be more solid at body temperature. A typical saturated fat in red meat, stearic acid, is 18 carbon atoms long, has a somewhat high melting point and low fluidity. The usual saturated fat in cell membranes and fat cells is 16 – 20 carbons in length. Unsaturated fats must reside in the cell membranes to compensate for the stiffness that would otherwise result that could impair cell function and regeneration. Both are required in an ideal balance for peak cellular health.

Triglycerides are the usual storage form of fat within fat cells. The 'tri' refers to the presence of three fatty acids in the molecule. The term 'glycerides' refers to the backbone molecule of the three-carbon glycerol that gives a docking port for each of the three fatty acid molecules. Triglycerides provide a highly energy dense storage form of fat that holds 3500 calories for every pound of fatty tissue in the body.

Eating high amounts of saturated fat can raise triglyceride levels in the blood and increase cardiac risks, a danger that may be reduced by carbohydrate restriction and exercise. Excess ingested carbohydrate is also converted to triglycerides and stored

as fat. Thus, even on a low fat diet, if carbohydrate is excessive, triglyceride levels may still increase.

Fats with a higher health hazard are those that have become rancid, a term for unsaturated fats that have oxidized. For this reason EFA's and highly unsaturated fatty acids should not be heated, and should be stored in conditions to reduce oxidation and free radical formation. The benefits of unsaturated fats can be reversed by excessive exposure to heat, light, or air.

The worst possible fats that you can eat are the partially hydrogenated fats. Such fats are often in margarine and other butter substitutes, as well as many processed foods. In the partial hydrogenation process unsaturated fats are subjected to high heat and other adverse conditions which can change the form of the double bond from a healthy form to a harmful form. This change may incorporate distorted unsaturated fats into cell membranes that no longer serve their intended biological function. The result can be harmful membrane stiffening, impaired fat metabolism, and elevated cholesterol levels. Partially hydrogenated fats are best avoided.

Some persons, even if on a low carbohydrate regime, may be sensitive to ingested dietary fat with elevations in triglycerides and undesirable cholesterol fractions. Testing blood lipid profiles with your doctor before and 3 – 6 weeks after starting your program will let you know whether you have such sensitivity and should be on a restricted fat version of the program. In some cases, for persons with more resistant metabolic problems such as serious metabolic or hormone imbalance conditions, other medical intervention may be required. For those exceptional persons that do not respond with the anticipated good results of following this program, health practitioner consultation is strongly recommended to assess for treatable conditions that may need to be addressed.

Alcohol Intake Discernment

Alcohol in the form of ethanol is consumed in many forms. In high amounts it has direct toxic effects on the brain, liver, and other tissues. Sipped slowly and in moderation, the body may be able to keep one step ahead of its toxic effects.

As a component of the diet, alcohol is like a hybrid of both fat and sugar and can make any program of fat burning vastly more difficult. The more alcohol consumed above a narrow threshold, the harder it becomes to lose weight and the more aggressively the other EASE program elements must be pursued to stay in balance much less lose weight.

The caloric content of alcohol is 7 calories per gram. This compares to carbohydrate, which has 4 calories per gram and fat that has 9 calories per gram. Drinking one ounce of alcohol is equivalent to ingesting one ounce of simple sugar and about half an ounce of fat. As one ounce is equal to 28 grams, an ounce of alcohol gives a big load of simple sugar and fat equivalent grams.

A single 'drink' is defined as 1.5 ounces of liquor, 4 ounces of wine, or 12 ounces of beer. Metabolic testing has shown that consuming two or more drinks cause a marked rise in insulin secretion. An increased intake of alcohol calories has been linked to greater degrees of abdominal fat storage; this type of fat is associated with high insulin levels and elevated health risks. This underscores the hazard to any weight loss program of including more than the slightest amount of alcohol.

A New England Journal of Medicine article has reported yet another major obstacle to burning fat if any significant amount of alcohol is consumed. The ingestion of 3 or more ounces of alcohol at a sitting was associated reducing fat metabolism by a very significant 33 percent. More than a single drink of alcohol makes the climb to burning a much steeper one.

A Mayo Clinic study showed that if a person drinks alcohol with a meal, the calories eaten at a meal increase markedly - an average of 350 calories more per meal. A big caloric load coupled with high insulin levels is a recipe for rapid weight gain.

In sum, alcohol ingestion creates three major challenges to a weight loss regime. Two or more drinks give an intense insulin raising simple sugar load that depresses metabolism, and increases the overall calories likely to be eaten at a meal. Thus alcohol consumption should be done with due discernment especially in the fat burning and body sculpting phase of your program. When your goals are achieved, alcohol may be added with care, preferably those drinks associated with health benefits such as red wine.

Faithful Friendly Fibre

In sharp contrast to alcohol that can slow metabolism and impair the function of many organs, fibre tends to smooth out internal functions. Few actions in medicine can give so gratified a relief as those remedies that result in regular bowel motions. Of all the great movers, dietary fibre reigns supreme.

Salad greens and fibrous non-starchy vegetables are excellent sources of fibre. Fruits, whole grains, and starchy vegetables also provide fibre, but give a relatively high carbohydrate load for the fibre level; ingestion of these should be moderated by the carbohydrate grams that may be consumed to keep you in your target range for weight loss and maintenance.

If the bowel is functioning normally, food travels from the stomach via the small intestines to the end of the colon for elimination in about 24 hours. If transit is slower, the bowel content tends to putrefy and may release toxins that get absorbed into the blood stream. Delayed transit through the intestines from inadequate fibre intake can also result in constipation.

Bowel friendly fibre provides a sweeping action that keeps ingested food moving right along. Fibre also holds onto fluid to help prevent constipation at the end of the journey through the bowel. The whisk-like action of fibre helps to keep the lining of the colon clean and reduces the risk of polyps and tumours.

Foods with high fibre content have a reduced glycemic index for the level of carbohydrate consumed. Unprocessed high fibre foods slow the rate of sugar entry into the bloodstream and usually also provide the cofactors needed to assimilate the carbohydrate properly. Increased dietary fibre intake has been associated with heart healthy reductions of cholesterol levels.

Fibre almost gives one the impression of being born to serve it is so beneficial. It provides the healthiest forms of carbohydrates to ingest, can lower cholesterol levels, and can prevent or relieve a myriad of intestinal ills. As high protein regimes can be constipating largely due to relatively low fibre content, keeping the bowels moving well with fibrous non-starchy vegetables or supplemental psyllium may be the biggest relief of all.

Superb Supplement Sense

A thoughtful supplement program can be one of your most powerful allies in your weight loss and body-sculpting program. All of the cells in your body, to operate at peak function, engage in million of chemical reactions each second. Through these reactions the cells perform their specific biological activities.

If any of the components are missing that are needed for chemical pathways, cells lose vitality, resistance to disease decreases, and regeneration may be impaired. Many factors are required for all the steps in the chemical pathways to be complete. To be certain of getting the foundation level of all the nutritional cofactors, dietary supplements can make the difference between a short path to success versus a long climb up a steep metabolic hill.

The greatest challenge that can frustrate even heroic weight loss efforts are the presence of nutritional deficiencies of components required for the fat burning process. Certain key factors must be present in minimum amounts or near fasting levels of food restriction even with exercise may do little to budge the scales or the waistline. Once the factors are replaced, rapid weight loss may ensue.

The Lite Body Gems formula from Gematria Products has been specifically designed to restore factors required for fat burning and weight loss. For example, Coenzyme (CoQ10) has been found to be deficient in up to half of overweight persons. CoQ10 is required in the enzyme complex that burns fat to generate energy. Even with strict dieting, significant weight loss did not occur until CoQ10 was supplemented in persons who were deficient. Lite Body Gems in the recommended amount provides a physiologic replacement level of CoQ10.

Other vital fat burning nutrients Lite Body Gems provides includes L-carnitine, L-glycine, and biologically available Chromium. L-carnitine is the specific molecule that transports fat from the cytoplasm (cell water) of the cell into the cell's mitochondria so that it can be burned. Fat is primarily combusted in battery-like cell structures called mitochondria present in each cell of the body. If L-carnitine is deficient, fat is not properly transported or burned.

L-carnitine deficiency, like CoQ10 deficiency, is common in persons who are very overweight to obese and have had great difficulty losing weight even with extreme dietary restriction and disciplined exercise. As the key to transporting fat to where it needs to go to get metabolized, L-carnitine is especially important to supplement to make sure enough is present to support fat burning. For persons who would like an especially potent jump start to their weight loss and body sculpting program, Gematria Products provides the Dual Carnitine formula. Dual Carnitine provides L-carnitine and Acetyl-L-carnitine (ALC) in a balanced ratio. ALC is a transport form for L-carnitine that is especially good for delivering L-carnitine to the brain and heart for improved energy and rejuvenation of these tissues. Studies of these Carnitine forms have shown improved metabolism and weight loss, enhanced exercise capacity, increased physical and mental energy, strengthened heart function, improved immune function, enhanced learning and memory, reversal of aging in the brain and skin, and prolongation of life span.

Glycine is the simplest of all the amino acids, and the lightest. It is very sweet to taste and is often deficient in overweight persons. It has been proposed that Glycine deficiency is a cause of “sweet tooth” that may prompt excessive sugar consumption to try to relieve the perceived insufficiency of Glycine. Replacing Glycine may reduce the urge to ingest sweets and also improve brain energy and function.

Chromium, a mineral needed at trace levels in the body, is essential for normal insulin activity. Supplementing Chromium may increase the sensitivity of cells to the effects of insulin and help relieve a diabetic tendency. Improved insulin function permits reduction of insulin levels and can help relieve problems due to elevated insulin and disturbed blood sugar levels. Ingestion of 200 micrograms per day of Chromium has been associated with improved blood sugar levels, better fat burning, and even increased muscle growth. Lite Body Gems provides 200 micrograms per day of Chromium combined with Vitamin B3, a Chromium form that is especially well absorbed and used in the body.

Amino acids are among the most basic nutrients the body needs for structure, function, and energy. Amino acids are small building blocks the body links together in chains to form all the proteins, enzymes, and antibodies in the body. Without amino acids, life as we know it is not possible. The amino acids in Lite Body Gems serve either to help the body build and sustain tissue while burning fat or to further boost the rate of the fat burning process.

Although protein foods contain amino acids, in the process of digestion, amino acids may be broken down into simpler compounds before being used as amino acids. The Cadillac of protein and enzyme building supplements, free form amino acids are already purified into the building block form. They require no further digestion for the body to absorb them and are rapidly transported into the bloodstream for tissue sustaining and regenerative purposes.

Gematria Products further increases the power of the nutrients in their formulas through a globally patented laser enhancement technology. Through matching the vibrational frequency of a molecular backbone with the laser, the molecules are stretched and unbent to a more self-similar shape that is generally highly efficient for the action of enzymes. The more similar in shape a molecule is to the one an enzyme just acted upon, the more readily the enzyme will act upon the next molecule presented to it.

As amino acids reach target tissues, they are in a race to be used intact or be degraded to simpler compounds. The amino acids made highly self-similar in form through the laser resonance process are more likely to be used to build and repair tissue than suffer nonspecific degradation compared to ordinary amino acids. Through this process a given quantity of an amino acid may provide a relatively greater biological effect than for the same quantity that has not been enhanced.

Certain amino acids are direct appetite suppressants, especially L-phenylalanine and L-tyrosine. These two amino acids can be converted to hormones that decrease appetite and increase mental and physical energy. Unlike many stimulants that work by giving short duration energy while depleting body chemistry, supplying these two amino acids builds the reserves of energy promoting molecules. In addition, L-phenylalanine stimulates the release of a stomach hormone called Cholecystokinin

(CCK) that signals satiety, instructing the brain that it is time to stop eating because the stomach is full.

The amino acid L-tryptophan is converted to the hormone serotonin in the brain. Serotonin can not only reduce hunger it can reduce sugar cravings as well. L-tryptophan is converted to 5-hydroxy-L-tryptophan (5HTP) and then to Serotonin. Lite Body Gems uses the far more potent 5HTP to provide Serotonin-enhancing benefits for reducing appetite, relieving compulsive sugar ingestion, and elevating mood. This may relieve a tendency to binge eating of sweets, especially when sweets are used as an antidote to feeling down. One of the greatest challenges of carbohydrate restricted programs is that carbohydrate ingestion helps in the delivery of L-tryptophan to the brain. Reduced L-tryptophan delivery can then result in decreased Serotonin production that can cause irritability, depressed mood, sleep difficulties, and sugar cravings that may make it difficult to sustain the program. Particularly, the use of formulas that contain 5HTP can supply the extra Serotonin precursors needed to relieve the difficulties and maintain the progress of body sculpting.

L-glutamine is an amino acid that specializes in decreasing sugar cravings. Like Glucose, L-glutamine can directly fuel the brain. It also helps to clear toxic accumulations of ammonia from the brain. L-glutamine can be a powerful ally to get back in balance in carbohydrate consumption, especially if you have fallen out of control in this area. Lite Body Gems provides all of these components with other cofactors which serve to make their effects more potent, particularly essential B vitamins and minerals.

For persons who are metabolically resistant and need a more extreme package to decrease appetite and sugar cravings, the GemBalance formula provides larger quantities of laser enhanced DL-phenylalanine, L-tyrosine, and L-glutamine. The addition of the D-phenylalanine component serves as an Endorphin booster in the brain. Endorphins are the molecules associated with the runner's high, falling in love, and the rapture of eating chocolate. One to two capsules before each meal adjusted to the level that controls appetite can give your program an added push that makes your progress faster and easier, especially if you have had resistant weight problems.

GemBalance may also give the pleasurable sensation and euphoria that chocolate brings without the sugar swings. It is a natural mood lifter and energy restorer. For those not on medications that interact with Serotonin (the Selective Serotonin Reuptake Inhibition anti-depressants (SSRIs like Prozac), this laser energized formula may be the amino acid Mercedes of appetite regulation.

The catabolic amino acids are those that stimulate the body to break down fat and digest worn out tissues so that rejuvenated tissue can be formed. Some persons with sluggish metabolisms that have been stuck in an overweight rut can shift the body to fat burning with these amino acids.

According to Dr. Erdmann's The Amino Acid Revolution, these metabolism-sparking nutrients are L-methionine, L-cysteine, L-aurine, L-asparagine, and L-glutamic acid. This effect is amplified if these amino acids are taken when the body is naturally catabolic, from 4PM to 10PM. To follow this ideal time frame, it is advised that Lite Body Gems be taken 1 capsule before breakfast and lunch and 2 capsules before

dinner time, whether eating or not, giving the biggest boost of fat burning fuel to coincide with the body's innate rhythm.

Lipotropic nutrients can further amplify the fat melting action initiated by catabolic amino acids. 'Lipo' means fat and 'tropic' means to be drawn or directed to. Lipotropic nutrients selectively go to fat and help to make it more fluid, a fat-melting process. According to Dr. Earl Mindell, author of *The Vitamin Bible* lipotropic agents improve fat and cholesterol metabolism; they may help to clear pathological fat from arteries and the liver; they can powerfully detoxify accumulated heavy metals, environmental toxins, cigarette smoke, smog, and even reduce radiation damage. For persons unable to lose weight or restore their health because of accumulated toxins, lipotropics may provide the key to recovery.

Gematria provides a product named Lipo that contains the formula Dr. Mindell advises to achieve lipotropic benefits. The ingredients are Choline, Inositol, L-methionine, and Betaine Hydrochloride. Choline is a component of Lecithin, which is released into the bile to aid in digesting and liquefying dietary fat. Choline is also converted into Acetylcholine, the main brain chemical of memory and higher mental functions. Inositol also promotes fat digestion and has a thermogenic action to give a boost to basal metabolic rate for increased fat burning. L-methionine is not only a lipotropic agent; it is a catabolic amino acid.

If used as part of a fat burning regime, the recommended pattern for Lipo is one capsule before breakfast, one before lunch, and two before dinner. This adjusts the largest boost of L-methionine to be in phase with the body's catabolic timing. Betaine Hydrochloride is a digestive aid that helps the lipotropic agents act more effectively.

Gematria Products laser enhancement may raise the lipotropic action yet another notch. In early feedback for this product, a person with a significant cholesterol problem reported a reduction of total cholesterol from 339 to 219 after about six weeks of use of Lipo. Her HMO doctor was so impressed with her results he increased his office visit from a few minutes to a half an hour to learn how she achieved so great an improvement without medication. Another person using Lipo had a measured cholesterol reduction from a high normal 198 to a highly heart healthy 141. In addition, the "bad" LDL cholesterol dropped from 132 to 77, while the "good" HDL remained in the mid-50's, a lowest risk cardiac profile.

Lipo may therefore prove an adjunct not only to support a fat burning program, but for long-term use to clear toxins from the body and support healthy fat and cholesterol metabolism. The early results are only suggestive. Further study in a controlled and prospective manner will be required to determine to what degree health and longevity may be promoted through extended use.

The majority of amino acids are anabolic, or tissue building. Lite Body Gems contains a complete spectrum of anabolic amino acids to support production of vital enzymes and tissues while the body is burning off fat. Many persons have found that they have lost inches rather than pounds to suggest that fat burning has been balanced by muscle growth, the best possible shift in body composition.

To get optimum results from amino acid formulas, it is very beneficial to ingest the

vitamins and cofactors the body needs at the same time as the amino acids. The Lite Body Gems formula has a full range of pathway completing vitamins and minerals so that all the body requires for efficient use is presented as a unified system. This allows the nutrients to provide even greater vitality and fat burning power. Ingested in this balanced form the body does not have to pull nutrients from other pathways to get the desired body sculpting benefits.

Vitamins B1, B2, B3, and B6 are provided to assist with metabolism of carbohydrates, fats, and proteins. In addition, these promote effective use of the amino acids. Vitamin C is included to further assist in basic metabolism, to help rebuild collagen in skin and blood vessels, and to serve as an anti-oxidant.

Minerals and trace elements have profoundly important roles as cofactors in essential enzyme activities. Without these cofactors, the enzymes will not work, food will not digest properly, and the body can suffer a loss of function. It is of utmost importance to note that minerals and trace elements differ greatly in how well the body absorbs and uses them based on the form in which they are presented. Some supplements have large milligram quantities of inorganic minerals that are little better than eating ground up rocks.

Further, just because a mineral is absorbed does not mean it is well used. If not presented in the correct form, absorbed minerals may fail to perform their biological function and can be stored in tissues as toxic deposits. Many of the minerals on the shelves of health food stores have poor absorption and even worse assimilation by tissues.

The solution for effective supplementation resides in providing minerals in an organic fashion the body can recognize and use. By far the best forms are minerals that have been joined with amino acids or other high quality chelating agents. The term chela means claw – the mineral becomes wrapped in a layer that is recognized by the cells as a cargo to transport – not only through the intestines for absorption, but also into the cells for high potency use.

Lite Body Gems and other Gematria Products use the highest quality chelated minerals and trace elements available to assure excellent biological function. Presenting minerals in this manner reduces the antagonism many minerals have for each other's absorption that can make giving ideal mineral replacement a delicate and precarious balancing act. Chelated minerals are an elegant solution for bypassing absorption problems.

In addition to state of the art Chromium, Lite Body Gems also has chelated forms of Magnesium, Zinc, Manganese, and Selenium. These serve to enhance the function of many key enzymes for digestion and tissue repair. They may improve heart and muscle function, enhance the activity of the endocrine glands, increase metabolic efficiency, give anti-oxidant benefits, and support the body in burning fat. If you have become deficient in any of these components, the benefits of even small degrees of high quality supplementation are greatly magnified.

Living food extracts can also be a great boon to restoring micronutrient levels in the body. Blue green algae is among the best natural food sources to get a wide range of minerals and trace elements in a form that can be well used in the body. Freeze-dried

blue green algae and other concentrated natural foods can help counter the depleting effects of devitalised processed foods.

Certain medications may interact adversely with nutritional supplements. The most important precaution is the avoidance of Phenylalanine and Tyrosine for persons taking a class of drugs known as MAO (Monoamine Oxidase) inhibitors. The MAO inhibitors are used to treat depression and have been largely replaced by newer and safer alternatives. Persons taking these medications must avoid many foods and over the counter remedies and will usually be heavily counselled about the risk of serious blood pressure and other problems that can occur if prohibited items are used.

Prozac and other SSRI's (Serotonin Specific Reuptake Inhibitors) for depression may increase the effects of supplemental 5HTP on the Serotonin axis. Lithium may interact with supplemental Iodine as in the Lite Body Gems formula.

Any person on medication or with any significant cardiac or other major medical condition should check with their physician before using amino acid supplements. It is also advised that pregnant or nursing women not use supplements or even over the counter medication unless they have cleared it with their health care practitioners.

On the whole, free form amino acids when provided with proper vitamins and Co-factors are a rich basic form of nutrition that restore and rebuild the body in many ways. Used with discernment, there are few more natural or biologically sound ways to boost individual health and well being. Gematria materials provide a review of the precautions so the supplements can be used with confidence and for the highest benefit.

Thermogenic Boost Parade

If it is your intention to burn fat away and keep it off, the term thermogenic is a call to arms. `Thermo' means heat and `genic' refers to that which creates. Thermogenic is therefore defined as the process of creating heat. When the body creates heat, it is burning fuel. Given a preference, fat is that fuel. The greater the thermogenic fire is stoked, the more fat is melted off. The higher the thermogenic level maintained, the more calories that can be consumed without regaining.

The thyroid gland is the main endocrine organ that sets the basal metabolic rate, the heat the body generates at rest 24 hours a day. This basal heat is measured in calories per day. Physical activity and exercise burn additional calories. This sets the number of dietary calories that can be consumed without gaining weight.

A sluggish thyroid gland is one reason that people may “eat like birds”, pecking away at a few grains of rice per day and find it very difficult to lose weight (of course, birds actually consume enormous amounts of food for their weight by human standards). Even strict dietary and brisk exercise regimes may fail to result in significant weight loss if thyroid activity is not brought up to snuff.

Checking temperature under the armpit can screen for clinically underactive thyroid function that may require thyroid hormone replacement. If the average temperature for four or more days is less than 96.5 degrees Fahrenheit, medical attention should be sought. Blood testing can ascertain specific thyroid status and guide appropriate thyroid replacement therapy to bring effective thyroid action back to a normal range.

The thyroid gland may also be underactive because of a deficiency of nutrients required to make thyroid hormone. The two main nutrients used for this purpose are Iodine and the amino acid L-tyrosine. The thyroid gland has a series of enzymes that convert these two building blocks into the various forms of biologically active thyroid hormone. In prior eras, regions in which soil and diet were poor in Iodine resulted in many persons with massively enlarged thyroid glands called goitres in the neck that produced too little hormone for adequate function. These persons often had the full complex of deficiency symptoms – cold sensitivity, obesity, depression, low physical energy, gravelly voices, and sluggish mental function.

In these cases, Iodine supplementation can cause a near miraculous recovery of function and resolution of symptoms. Gross Iodine deficiency has become rare in the industrialised world because of inclusion of Iodine in table salt. Other causes of thyroid under-activity can be resolved by administering thyroid hormone at a level that corrects blood test abnormalities. Thyroid hormone testing is appropriate for any person that is markedly overweight and has poor results with dietary efforts.

Lite Body Gems provides the Recommended Daily Allowance (RDA) for Iodine in conjunction with purified readily absorbed L-tyrosine so the body has the building blocks to make its own thyroid hormone. This can provide correction to borderline under-activity due to inadequate dietary intake of thyroid hormone precursors. A little boost may go a long way toward making a weight loss program easier if sluggish thyroid function has been part of the metabolic resistance to weight loss and fat burning.

Other factors that can increase basal metabolic rate, the number of calories you burn off each day before any exercise, can give you an additional push to promoting weight loss. Supplements that support the basic mechanisms of fat burning and can increase metabolic rate are L-carnitine, CoQ10, absorbable Chromium, the catabolic amino acids, and Alpha-glutaric acid, all of which are contained in Lite Body Gems. Inositol is another thermogenic nutrient. The Lipo product for assisting with fat melting and cell membrane function, is rich not only in Inositol, but also has high levels of the catabolic amino acid L-methionine.

An additional important factor in setting basal metabolic rate is the lean muscle mass of the body. Every pound of lean muscle added to your frame burns an additional 75 calories per day, whether you are exercising that day or not. In addition to exercise, specific supplements can accelerate the rate of building lean muscle. This results in greater ease in melting off pounds and helps greatly to help keep from regaining the weight that has been trimmed off. Increased muscle mass looks good and feels good and increases function and quality of life.

Recently, a surge in interest in Human Growth Hormone in various forms has swept into the public awareness. Growth Hormone is a powerful rejuvenation hormone and can turn biological markers of aging back as much as 10 – 20 years. Growth Hormone is released from the pituitary gland, roughly located at the central base of the brain. This youth promoter builds muscle, burns fat, and helps sculpt a leaner younger body.

Growth Hormone release also improves the function of the immune system and can actually stimulate the re-growth of vital internal organs that have declined over time. This age reversing action has increased the size and function of the liver, spleen, kidneys, heart, and immune boosting thymus glands. Although not the ultimate Fountain of Youth, Growth Hormone amplification through giving Growth Hormone or its releasers is among the best anti-aging remedies yet discovered.

The most powerful of the amino acids for Growth Hormone release is L-ornithine. This amino acid functions in the pituitary and converts to and from L-arginine, a major component of the Growth Hormone molecule. L-ornithine is not only more potent than L-arginine, it is also free of the tendency to provoke herpes virus eruptions that may accompany L-arginine use. L-ornithine is best taken at bedtime to stimulate growth hormone release at the time of the normal peak secretion 90 minutes after falling asleep.

Gematria Products provides a laser-enhanced version of L-ornithine to provide natural stimulation of increased Growth Hormone release. Two capsules at bedtime provide one and a half grams of pure L-ornithine, a Growth Hormone boosting level. For persons who get partial results at this quantity, the intake may be doubled to strive for peak effects. It is important NOT TO EAT FOR AT LEAST 3 – 4 HOURS BEFORE TAKING L-ORNITHINE AS A FAT BURNING TENDENCY CAN BE SHIFTED TO FAT STORING. Eating calories earlier will speed your success.

A program called the Triple Burner Combo has recently been studied using state of the art basal metabolic testing. Performed at the prestigious Scripps Clinic in La Jolla, California, the Triple Burner Combo is a combined program using Lite Body Gems,

Lipo, and L-ornithine. The program is timed with meals and at bedtime to maximize metabolic enhancement.

The results showed that *within 10 days, average basal metabolic rate increased a highly significant 16%. This equated to an increased basal calorie burning that averaged over 200 calories per day. At this rate, a person starting in equal caloric balance would burn off over 20 pounds of pure fat per year.*

Thermogenic Fine Points

An often overlooked thermogenic booster, a bit of spice can powerfully stoke your inner fire. Curries, peppers, ginger and hot spices can significantly raise metabolic rate after your meal. Three grams of chilli plus three grams of mustard sauce has been shown to give a potent fat burning action. The more you eat hot, the higher the fat melting fires will burn. The eye watering, mouth scorching, water-seeking response goes along with a burst in after meal metabolism.

Chilling out refers not only to a relaxed state but also to a way to increase the heat your body must generate in digestion. To the degree that food is cool or cold, the body must generate heat to raise it to body temperature. A given quantity of food if a little cooler raises internal calorie consumption to warm the food to the body core temperature.

Fluids are by far the most effective foods to consume cold as a strategy for stimulating the inner thermostat to burn more calories. One gallon of cold fluids requires 200 calories to raise the temperature of the fluids to body temperature, or 50 calories for every two pints of cold fluids. If you consume cold fluids as your preference, the calories burned off in this way can add up greatly over time.

Vigorous Water Ingestion

By far the most effective dietary fluid is water. Often thirst is confused for hunger and reaching for water first will satisfy better than a calorie filled snack. If your first impulse to feeling hungry between meals is to reach for a glass of cold water, you may cut down on calories you don't really need and feel much better. The level of tissue hydration impacts physical performance greatly. As little as 3% cellular dehydration can reduce strength 10% and speed 8%. Water is needed to transport nutrients into the cells and to eliminate toxins and waste products out of the cells. Water ingestion helps maintain ideal internal balances so that the health of cells and overall well being is promoted.

The stimulant effects of caffeine for weight loss are countered by a diuretic effect that can dehydrate cells and deplete electrolytes. Caffeine may also stimulate insulin release, which as extensively reviewed, is the hormone that promotes weight gain and sugar cravings. For these reasons caffeine is best used sparingly on a weight loss regime.

Water is necessary for the effective metabolism of fat. Water is involved in fat transport, digestion, and burning fat to generate energy. Drinking at least two litres of water daily can greatly enhance your performance, metabolic efficiency, and general well being. Keeping well hydrated supports the processes of burning fat and helps prevent you from eating when it is thirst your body wishes to quench.

Exercise Burns Doubly

Exercise is a huge plus to add to your program for a multitude of reasons. The two main forms of exercise, aerobic and anaerobic, provide additive and even synergistic benefits. Including both in your regimen will give you the best of all fitness and body Re-shaping worlds.

The multiple merits of exercise hinge on the vast metabolic difference between muscle and fat. A pound of fat only needs 2 calories of energy each day to support its needs. This is dwarfed in energy use by muscle that will burn 75 calories per pound per day – 37 ½ times that of fat – even at relative rest. Depending on activity level, muscles burn 50 – 90% of calories expended each day.

Building muscle mass is one of the most effective methods of accelerating your fat burning process. **Every pound of muscle you add burns off 75 extra calories each day.** At rest and during aerobic exercise muscle prefers to burn fat over other fuels. The extra muscle burns fat 24 hours a day, even while you are sleeping.

Increased muscle also improves strength and reverses a biological marker of aging. Anaerobic exercise, like lifting weights until the “burn”, not only burns extra calories during the exercise itself, the extra muscle built keeps on burning fat even after the workout. In this way, weight lifting, muscle-building activities truly do burn fat doubly.

For those who are passionately dedicated to getting the maximum body building results, the best time of day to grow big muscles is in the early hours of the morning. Peak testosterone secretion, a potent muscle building hormone, is at about 2AM. Weight lifting and isometric exercise will give the greatest results for those up for pumping iron before the rooster call. Arnold Schwarzenegger’s only loss in the body building world was to Bill Pearl, who espoused the muscle building workout that began at 2AM.

Before any strenuous weight lifting or vigorous aerobic exercise, it is best to warm the muscles with light aerobic activity for 5 – 10 minutes and then do gentle stretching. This helps to loosen the muscles and make the tendons and ligaments more supple. This not only assists in getting better results from your workout; it helps enormously to prevent injuries.

The usual recommendation for aerobic exercise is to do 20 – 30 minutes of activity 3 – 4 times per week that results in a sustained increase in heart rate. If you are not working so hard that you can still speak comfortably, you have likely remained in the aerobic range rather than pushing into anaerobic levels. Brisk walking is among the best aerobic exercises as it has a low risk of injury, is fairly low impact, and can be done almost anywhere. Swimming, biking, climbing, and dancing are also excellent forms of aerobic activity.

Aerobic exercise is that which causes the body to increase its oxygen consumption in a sustained pattern. This form of exercise increases heart rate and improves the health of the heart and blood vessels. The oxygen carrying capacity of the blood increases, capillaries grow to provide more blood to tissue, and endurance improves. Total and LDL cholesterol decrease, the “good” HDL increases, and fat and sugar cravings may drop. Insulin levels decrease, stress hormones drop, and sensitivity to

insulin improves. For men and women, moderate compared to low exercise levels are associated with significant increases in survival. Not only that, every minute of aerobic exercise burns fat.

If you are unable to do 20 – 30 minutes at a time, you may still achieve significant weight loss benefits by doing shorter bursts of activity during the day. Every extra minute you exercise, even if it is walking instead of driving or taking the stairs instead of the elevator, gives you a few more calories burned to improve your body sculpting and your fitness.

The timing of your exercise may provide extra benefits out of proportion to the number of immediate calories burned in the exercise. After a meal, metabolic rate usually increases about 10% during digestion. If you exercise within 15 – 30 minutes of your meals you can double the after meal increase in metabolic rate. A 10 minute walk can give a two hour elevation of sense of well being and increase fat burning for up to 10 hours afterwards. A prompt after dinner walk can help melt fat the rest of the evening.

Early day aerobics also give a better measure of fat burning. Exercise completed before breakfast burns two thirds of the calories as fat whereas evening workouts only burn half the calories as fat. Early day aerobics also appear easier to sustain. After one year, of persons who began an exercise program, three quarters who worked out in the morning were still exercising regularly. In contrast, half of mid-day exercisers had fallen off the program and only one quarter of evening exercisers persisted.

Undertaking an exercise program is an important key to achieving and maintaining weight loss. A study from Berkeley showed that of persons who maintained weight loss, 90% remained on an exercise program; of those that regained, only 34% were still exercising. For those who persist on a program not only is weight loss easier, it is much more likely to preserve the level of weight reduction.

The most overwhelming physiologic benefit of exercise for fat burning is the ability to reduce metabolic resistance. This means lowering insulin levels, increasing the sensitivity of cells to the effects of insulin, and increasing the amount of carbohydrate that can be consumed in the diet without regaining weight. In addition, it becomes much easier to drop a few pounds by intensifying your program if your weight begins to drift back upwards when your body sculpting program is done less rigorously.

Parents enormously benefit their children if they work out regularly. Children of parents who exercise regularly are six times more likely to be physically active than children of parents who do not. Getting the entire family into a physically active program can not only be fun, it helps create an environment in which activity, weight control, and better health are likely.

Before any strenuous exercise, it is very beneficial to warm up and stretch the muscles first. There are two parts to this process. The warm up refers to doing a very light aerobic action such as an exercise bike, walking, or gentle bouncing for a few minutes. Such activity increases muscle blood flow and warms the muscle and connective tissues. The warmed muscle is then gently stretched to increase muscle, tendon, and ligament resilience to buffer the stresses of abrupt increases in tension

during exercise. This practice greatly reduces the likelihood of an injury, especially if you have not already achieved a high level of conditioning.

Doing diverse types of exercise helps to enrich and balance your program. In addition, varying the exercises can help assure that a greater number of muscle groups in your body get strengthened and toned. For some, a particular regime works best and should be sustained diligently. Even in that case, occasional variations on the theme help to exercise those “muscles you rarely use” and are reminded of by the novel activity. Regular cross training with weights and varying aerobics may give the best results.

The one caution is that if you are lifting weights your scale may grossly underestimate your improvement in body composition. If you are adding muscle while burning fat, the number of pounds lost will not reflect the true progress you are making. It is best to look at the number of inches you are shedding from waist, hips, and thighs and how much better toned, fit, and sculpted you are becoming.

In sum, lifting weights burns calories while you work out and each new pound of muscle burns 75 extra calories per day. Adding aerobic activity has direct fat burning and many other health and metabolic benefits. Although aerobic exercise may work best if maintained for 20 or more minutes at a stretch, adding up shorter bursts of activity can compound to great weight loss and fitness benefits over time. In general, the more you strive to be active, the easier and more effective your body sculpting will be.

Thirty minutes of moderate exercise three times a week sums to burning calories equal to shedding 15 pounds of fat in one year. If the 90 minutes a week is spread over more days and shorter sessions, the benefits for weight loss may be similar and the program simpler to achieve. If increased activity becomes your usual pattern, the greater your chances of maintaining sustained body sculpting.

Habit Helper Hints

Mastery of any skill resides in the subtleties, being aware of and achieving the fine points. In a fat burning, body sculpting program a few simple subtle habit shifts can make a huge difference in the progress and ease of your program. Of the options that follow, picking a few that are a good fit for you can provide an ignition point for a system that transcends all your prior difficulties with weight loss programs to help you achieve lasting success.

One of the most powerful techniques is to get up promptly after waking in the morning and turn on the lights, the brighter the better, up to the level of sunlight. Bright light stimulates centres in the brain that immediately increase mental focus and energy, and activates the release of brain hormones that speed up energy production. Immediate activity upon arising combined with bright light provides an early day boost to metabolism that will help you burn more fat the rest of the day.

A bedtime adjustment that increases calories burned over night is tossing off as many covers as possible. As long as you remain comfortable, the reduction of blankets causes an increase in heat generation to maintain body temperature. The fuel for this extra heat comes from fat and helps set overall metabolism at a higher level.

With a little thought you can readily nudge your activity during the day to higher totals, both in intensity and duration. This is the exact opposite of the advice I was given as a medical intern during the 120 hour work weeks: never stand when you can sit, never run when you can walk, and never climb when you can ride. That was the formula (along with many daily fizzy drinks) to gain 20 pounds so gradually it was not recognized until the end of the internship blur.

To clearly state the converse, when possible, stand instead of sitting, walk instead of riding, and climb stairs instead of riding the elevator. Each of these steps increase the total number of calories you burn, lowers insulin levels a touch, and may even give a bit of a conditioning boost. One caution is that prolonged standing in one place will cause tissue fluid to accumulate in the lower legs if you don't move. As little as 15 – 20 minutes standing in one place can cause tissue swelling and even oedema. Muscular pumping action from movement is needed to cause the lower leg tissue fluid to get transported back to the heart and circulation.

For those who like to stand while watching TV or during other mentally non-taxing activities, a superb technique is to bounce up and down gently in place. This motion exercises the lower and upper legs, prevents swelling and oedema, and burns off extra calories that can add up to huge levels if the action is prolonged (especially while channel surfing B movies on satellite).

Of even greater general health benefit, the bouncing action can stimulate the flow of lymphatic fluid throughout the entire body. Lymph is the fluid that collects around cells after capillaries bring blood to tissue. Lymph flows from the tissues by way of lymphatic vessels to lymph nodes and other immune and filtering organs.

Stimulating lymphatic flow clears dead cells, debris, and toxins from all the tissues of the body, whether with gentle in place bouncing or more vigorously with a rebounder.

This action is highly beneficial for overall health and well being. In addition, it burns extra calories and can help someone who is out of shape to ease back into better condition.

As in the domain of moderate level exercise, in which more activity and more kinds of activity are better, in the realm of eating more awareness is better. Eating food slowly pays a benefit in increasing the amount of fat you will burn after a meal. Prolonging a meal for only four extra minutes provides an added measure of fat burning related to that meal.

Eating food slowly permits you to savour and enjoy a given amount of food more than if quickly eaten. The slower pace of ingestion gives the hormone mechanisms of the stomach and small bowel a better chance to ring the satiety signal and tell you that you are full before overeating. The more slowly you learn to eat a given amount on your plate the quicker and more enduring your success is likely to be.

The noise level and sound quality in the room while eating make a major difference in eating styles. Loud harsh noise results in larger amounts of food being eaten more rapidly. In contrast, a low sound level reduces the rate of food consumption. Soft slow music at meals has been shown not only to cause diners to eat more slowly, but also less food is consumed. Soft pleasing music is thus associated with fewer calories eaten, more eating enjoyment, and more fat burned after meals.

Brushing your teeth after eating can be a powerful tool to help you lose weight. Not only does this improve oral hygiene and make your dentist (and perhaps others) happy, brushing your teeth is a signal that your meal is complete. The pattern of after meal teeth brushing makes it far more likely that you will be able to pass on those extra cookies, cakes, and pies you might add if your teeth weren't clean and your breath minty fresh.

The TV habit can be the undoing of many a well-intended trimming and body sculpting program. Large quantities of high carbohydrate snacks and beverages can easily and mindlessly pass your lips while being engrossed in the latest sitcom or TV drama. Large amounts of carbohydrate timed late in the day may be the reason that so many pounds slipped on in the first place, so this habit is important to shift if long term success is to be achieved.

Much of the reason for a tendency to overeat while watching TV is that it has a potent mood depressing effect. Studies have shown that watching more than two hours of TV at a time lowers mood measurably.

Even worse with respect to watching TV is evidence that watching television is associated with an actual drop in metabolic rate. In one study of persons watching the half-hour long "Wonder Years", by the end of the show, metabolic rate had dropped a drastic 16%. The combined effects of lowered mood and depressed metabolic rate are significant hurdle to overcome for weight reduction.

It is perhaps best to minimize TV or at least to strive to watch programs that are as uplifting as possible. The most ideal would be to exchange TV time for physical activities that provide entertainment, novelty, and extra calories burned off. In the

least, if watching TV is combined with bouncing, biking, or other sustained activities, the detrimental effects of TV may be balanced by exercise.

Of all the habits to modify or change to have huge health gains, the smoking habit is on the top of the list. Entire volumes can and have been written about the serious health hazards of smoking. During my two years of Pulmonary Fellowship training, I observed first hand the catastrophic end stages of smoking related problems. The impact of smoking on the physiology of weight loss is quite significant. The use of the complete EASE program may assist you to halt smoking and lose rather than gain fat.

Smoking causes carbon monoxide to combine with red blood cells reducing their capacity to carry oxygen. This adverse effect is made worse by the tendency of carbon monoxide laden red cells to locate themselves close to the walls of arteries in the layers of circulating blood. As arteries get their oxygen from the blood flowing within them, this selectively starves the arteries of oxygen. Arteries deprived of oxygen give rise to tissues deprived of oxygen and a myriad of metabolic and physical ills.

From the weight loss standpoint, smoking causes blood sugar levels to rise. Smokers are twice as likely to have increased abdominal fat as are non-smokers. As increased abdominal fat is a marker for elevated insulin levels, smoking directly opposes the hormonal changes desired to sustain weight loss.

Nicotine in cigarette smoke is a stimulant, the withdrawal of which may be associated with increased appetite. Nicotine patches or gum is a far healthier choice than the multitude of toxins that come along with the smoke. Choosing a high protein, low carbohydrate program can help greatly to be able to maintain and even lose weight after smoking cessation; the total EASE program may be used to increase your weekly fat burning score to prevent weight concerns about weight gain from keeping you from smoking cessation.

Certain amino acids such as L- and DL-phenylalanine may be helpful in maintaining mood and reducing nicotine cravings during smoking cessation. The GemBalance formulas may help in this regard. Persons truly intent on smoking cessation will be well served with professional nutritional and other health counselling – the likelihood of remaining a non-smoker is much increased with personal support and professional guidance.

One study showed that persons who reduced the number of cigarettes they smoked by 80% puffed three times harder on each cigarette. Reducing cigarette number may be of some benefit if not overbalanced by heavier puffing on the cigarettes still smoked. By far the greatest benefits result from discarding the habit altogether.

Deep Breathing Bonus

All of the hundred trillion cells of the body breathe continuously. Oxygen is drawn into the cells and carbon dioxide and other residues of metabolism are released from the cells. The quality of your breathing is reflected in the quality of oxygenation of all the cells and tissues of your body.

Deep breathing enlivens tissues, improves mental function, and can even make the bowels work better. To breathe deeply means breathing from the diaphragm, the curved sheet of muscle that attaches to the base of the rib cage. To do a full diaphragmatic breath the diaphragm is drawn downward deeply into the abdomen as the rib cage expands fully. This provides the maximum expansion of lung capacity and improves the efficiency of oxygen transfer to the blood. The richly oxygenated blood then flows throughout the body and increases the oxygen available to the tissues. If you are going to burn fat you will need oxygen to do it.

This form of deep breathing massages the internal organs, especially the digestive organs, and can improve bowel function. General circulation of blood and lymphatic fluid may also be enhanced. Regular deep breathing may help to preserve and maintain a higher relative degree of lung capacity.

Deep breathing is also associated with a shift to desirable brainwave states. The level of alpha wave production tends to increase significantly. This is the state associated with a calm body and an alert mind. The peak performance band found in athletes in the “zone” resides in the alpha band. Shifting into alpha waves is also a marker for decreased stress. Regular deep breathing for stress reduction may improve your sense of well being and further assist your weight loss program.

A deep breath can serve as a pattern interrupt in a stressful situation. Often the first reaction to stress is to stop breathing. This decreases oxygen to the brain, muscles, and internal organs, impairing the ability to respond well to the situation. Stress hormones are released from the adrenal gland to prepare you for “fight or flight”. The main stress hormones, cortisol (an adrenal steroid) and adrenaline, serve you only if you need an immediate physical reaction to the event.

Both cortisol and adrenaline strongly antagonise the effects of insulin. Increased levels of both of these hormones, if not responding with physical exertion, will cause insulin resistance. Stress and the stress response, through increased degrees of insulin resistance and unfavourable effects on micro-hormone balance, are antagonistic to a fat burning program.

Remembering to breathe deeply at the first sign of stress will help to lower the stress hormone response and keep you calm so that you can best handle the situation. Exercise may also assist you in lowering the stress response, as the purpose of releasing the stress hormones is to prepare you for intense muscular activity. If you remember to be aware to breathe slowly and deeply several times per day, you can improve your mental clarity, relieve stress, and be more likely to be effective during acute demands.

Mindfulness Serves Well

The focused use of your mind is by far your most potent tool to speed your weight loss and body sculpting progress. You may also improve nearly every other aspect of your life in to the degree that you can hold a picture of the intended reality in your mind. To foster any new creation in your body, emotions, or physical reality the cradle of manifestation is an attitude held in the mind.

The aspects of attitude that can give you the most powerful results are the belief that you can achieve the transformed condition, that the total responsibility for the condition is your own, and that you will persevere until the desired outcome is realized. As long as these attitudes are held and cultivated, your power to achieve your body sculpting and other goals will grow. Persistence will bear the fruit of a more disciplined mind and awareness to take to all your endeavours.

This section will describe the way you can choose to refocus your mind to transform your self-talk from critical to supportive, to increase your awareness of your environment and ease stress, and to hold that image of the body you desire to make it easier to create. It is perhaps best to do the refocus in that order as each step builds upon the other. Each increment of improved clarity of focus offers the possibility that all the results you choose from that point forward will become easier to create.

The book, *Fat Free Living* reports a series of stunning figures of the degree to which we grow up and reside in a critical environment that shapes our self-image. The ratio of criticism to praise expressed from parents to children is at an abysmal 93% criticism level that drops in secondary school to an even worse 95% criticism ratio. Despite all the information about positive thought in the workplace, bosses give praise instead of rebuke to their employees only 10-20% of the time on average.

The lifelong barrage of 80-95% critical remarks tends to internalize as negative self-talk and negative thought. One estimate holds that on average 96.4% of people's thought energy is mired in negative thought. The first step to reverse the trend of adverse mental chatter is to become highly aware of what you are thinking and immediately replace any negative thought with its positive counterpart. For example, "I can never lose weight" becomes "I easily achieve a better body."

The second step is to monitor the content of what you put in your mind. Are you reading bad news or depressing novels or sensationalized news reports without a positive counterbalance? Do you allow such reports to make you feel that you have little control over a hostile environment and that there is little you can do to change the situation? Observe the effects such news is having on you and observe how much better you feel when you and shift your intake to material that uplifts you to a more positive mental state.

The third is to become aware of how the people in your environment influence your thoughts. Do you let yourself get pulled into negative chatter that makes you or others look or feel bad or not worthy or capable. The hardest challenge of all may be to be able to walk away from or refuse to partake of negative attitudes and persons that may undermine your efforts at improving your conditions.

Spend some time each day creating a quiet space in your mind that only allows a positive influence. Any other situation or problem you must solve gets put outside this protected space in your mind. If you focus your mind on the highest influences you know, that which to you is divine, or see yourself only in the light of the new ideal, or let yourself be in total internal quiet and peace, your thought power and positivity will grow stronger by the day.

Another way to name the above process is meditation. Of utmost importance is that meditation is not just sitting quietly, it is the purposeful focus of the mind, even if only on stillness. Twenty or thirty minutes once or twice a day can have vast benefits for your health and well being. Numerous studies have shown that regular meditation eases stress dramatically, lowers blood pressure, can improve health conditions, and has potent anti-aging and even age reversing properties.

From the time of Maxwell Maltz's classic *Psycho-Cybernetics*, it has been shown that *21 consecutive days of application are required to establish a new habit or self-image or pattern of thought*. Whatever pattern you desire to change, you must do it consistently for at least three weeks to establish a new pattern. In striving for greater discipline of your mind, as well as any other aspect of the EASE system, persistence is required for the actions to be of greatest assistance.

As a kind of meditation on food, being more aware of your food can greatly enhance the depth and substance of your program. If you savour your food slowly, you can derive far more pleasure from smaller amounts of food. You may discover new flavours and layers of sensations and textures you never knew existed in the foods you usually eat.

Savouring your food will help you to eat at a more relaxed pace in a calmer ambience. Taking extra time to eat will make it very likely that you will eat less food, enjoy it more, and shift your metabolism into a higher degree of fat burning by prolonging the meal. As one of life's great pleasures, you can experience dimensions of refinement not available if food is rushed without being fully tasted.

A useful method to increase your dining awareness is to pay attention to the individual aspects of food and beverages as you consume them. The first attribute of that which you consume is its taste. There are only four primary tastes that are located at different areas of the tongue. Those aspects are sweet, sour, bitter, and salty. As you eat or drink, there is an initial taste, which may change to a dominant taste, and then be followed by an aftertaste. Ask yourself the taste pattern of the food you are eating and you may notice that salty food may have a sweet tinge and that a sour edge or a bit of bitterness can become a positive attribute.

Next you may attend to the temperature of the food or drink. The temperature may be the same throughout the food or may differ between its parts, and change while you are eating it. Closely allied is the texture that may vary over the various areas of the food. New layers of texture swing into prominence as the food dissolves or is chewed. Even liquids have subtle shades of textures that are detectable if you look for them. Your increased focus will permit you to slow your pace and improve your digestion.

Flavour is the next attribute you may choose to explore in the culinary layers. Flavour is very complex and is so closely allied to smell it is difficult to separate them. Flavour is a combination of all of the above attributes that hinges on smell to bring out the full richness of sensation. The aroma of your food or fluid permeates to the nasal passages and goes through an area of the skull that looks like a tiny sieve or strainer called the cribriform plate. Sensory fibres from the olfactory nerve, the cranial nerve of smell, extend and intertwine in this region of tiny skull perforations to detect minute levels of airborne molecules that provide aroma.

The exquisite mechanism of smell can distinguish slight differences between many thousands of molecules. Focusing on flavour and the intimately allied sense of smell adds an enormous range of perceptual stimuli that you can learn to discriminate with increasing degrees of precision. Much as the latest graphics programs provide on personal computers, there are myriads of different combinations of attributes you can detect if you cultivate the ability to thoroughly taste and fully enjoy your food.

Taking the time to focus on each aspect in turn – taste, temperature, texture, flavour, and smell can give you a fresh experience of familiar foods. Routine entrees may take on a greater degree of interest. Development of your taste enjoyment may lead you to explore types and varieties of food, which heighten your pleasure in unexpected ways.

Consuming food in this manner eases the pressure you may feel at meal times to get the food down before rushing to the next activity. You may find your eating time is the same or only slightly longer, you eat less food, and you feel far more satisfied. The added awareness can make dining a form of meditation that gives you a rest from your day, refreshes you deeply, and improves the nourishment you receive.

In a Zen practice a single raisin is consumed as slowly and with as much awareness as possible. This act of eating can take the mind into profoundly deep and relaxed brainwave states. For those who aim for the advanced level, the subtle aspects of the vibration, energy, and essence become the focus of masterful degrees of insight.

In Native American cultures, a high manner of mindfulness went into finding, preparing, and eating food. Any animal that was provided for food was honoured in ceremony and thanked, akin in essence to saying grace before meals. In the gratitude for the food a spiritual dimension is added that makes ingesting and assimilating more fully complete.

An added awareness you may soon discover if you explore the subtle aspect of food is the great difference in vitality between different kinds of food. Vitality refers to the degree of aliveness of the food. This is far more than just a measure of taste preference. The higher the vitality or aliveness of the food, the greater the probable nutritional value the food delivers.

Processed food has a longer shelf life because the vitamins and cofactors have been removed that microbes would tend to use for growth. It is these same nutrients that the body requires for optimum health. Fresher unrefined food has more natural cofactors put together in ideal ways to support and regenerate cells most powerfully. If you eat a TV dinner versus fresh meats, fruits, and vegetables the fresher food is not only tastier, it is much better for you.

Being able to slow down and be aware of the subtle aspects of your food is a strong sign that you are gaining greater command of yourself and your environment. The meditation on food improves your mind and emotional balance as well as your digestion. As an exercise, honouring your food is a way to elevate your thought patterns in the midst of daily activities.

Once you have transformed your self-talk in a more positive direction, you will have a greater chance of releasing tension and stress in the moment rather than carrying it with you. Your energy becomes freed to accomplish at a higher level of excellence than you may have thought yourself capable. You may decide rather than just striving “to lose some weight” that you may choose to elevate your goals to much better fitness, attractiveness, and levels of ability.

A powerful ally for achieving permanent weight loss and a fit and appealing body is to change your body image. A method so simple as shifting the way you see yourself may seem to be of little value compared to strict dietary disciplines and Herculean efforts at the gym. Nonetheless, for those who like the straight, quick, easy path this can be the best method by far.

There are examples of persons who decide that they would like to be slender rather than overweight and without further effort the pounds melt off and stay off. The only Pre-requisite appears to be a positive mental environment and the focus of seeing the body in a different way. Holding the image of the most ideal bodily form you would like to achieve, in a relaxed state, with positive emotion for 5-10 minutes a day can become your most powerful ally to creating this new form.

This applies to other body features besides overall weight. Two different studies proved that women could increase their breast size measurably through the power of thought alone. The practice required no more than entering a relaxed state and creating the picture in their minds that their breasts were pleasingly enlarged. The response in healthy breast tissue enlargement was repeatedly quite significant. The implication is that any body part can be reshaped by the intentional act of a change of thought.

Holding a picture in your mind attunes you consciously and unconsciously to the actions and environment needed to produce the desired effects. This allows an almost microscopic level of feedback to shape the transitions from the present to the intended condition. To the degree that you make your thought and physical environment more positive, and cultivate increased awareness; not only may weight loss become easy for the first time, but much more may be gained in your life.

Restful Sleep Reigns

The final piece of the weight loss puzzle is achieving peaceful, rejuvenating sleep. When studied, poor sleep has been associated with a 10 – 15% increase in calorie consumption in the diet. A good night's sleep helps to reset hormone levels to control appetite, facilitate fat burning, and restore the body's energy and vitality.

Consistent bedtime and arising hours help to promote good quality sleep. In addition, exercise or a hot shower three hours before bedtime improves and deepens the quality of sleep. This mechanism appears to be related to an increase in body temperature, perhaps most ideally promoted by late evening aerobics, but a late-night Jacuzzi may also assist.

Dietary adjustments and supplements may be another vehicle for better sleep. The nutrients L-tryptophan and Melatonin have been shown to have a sleep-inducing quality. Poultry and milk are rich in L-tryptophan, which contributes to the deep drowsiness that often follows Thanksgiving dinner. Certain teas such as Valerian and the Sleepy Time blend may give a gentle push to a happy slumber.

Other actions and intentions may also serve to promote restful and rejuvenating sleep. The authors of *Fat Free Living* suggest making the bedroom a sanctuary that is used only for sleeping or enfolding intimate activities. All worries, bills, disputes, or anything other than that which is peaceful and harmonious are left outside the door and taken care of elsewhere.

The practice of quieting the mind in meditation may be especially helpful at bedtime. You may focus your intention and breath on falling asleep easily and sleeping soundly and refreshingly. You can give intent to have a recall of enriching dreams. If you consciously "sleep on" a question or problem or a project, you may awaken with effortless solutions. By adding intention to your sleep, you may awaken trim, smart, and joyfully inspired.

Maintain a Balanced Program

The EASE program is meant to be a way of life that permits you to lose weight, keep it off, and adjust the plan to your preferences and tastes. Many plans will help you lose weight for a short while, but if they don't change the patterns on which you gained the weight, it is likely you will gain all the weight back plus a bit more – your body's reaction to having felt starved. To achieve lasting success with the EASE plan, it is advised that you score yourself daily for 21 consecutive days and then consistently thereafter until you have reached and are maintaining your goals.

Regulating the kinds and quantity of carbohydrate you eat is the central key to this plan. The supplements will help assure that you will effectively burn fat if you restrict carbohydrate intake. The activity, supplement, and habit shift adjuncts may all serve to help you reduce your metabolic resistance, burn fat, and be able to enjoy more carbohydrate in your program while maintaining your weight loss achievements.

Beyond weight loss, this program is designed to help you achieve higher levels of fitness and well being. This program can be balanced ideally to your tastes and lifestyle. As your life situations and needs fluctuate, you can choose the way you will shift your focus to keep in your target range. Perhaps the greatest benefit of succeeding in the program is that as you burn fat you lower metabolic resistance making it easier to sustain your new weight level and improving your health in many dimensions.

If all the elements of the EASE program are combined you may achieve a high degree of metabolic efficiency that permits great flexibility in your diet while maintaining your body sculpting benefits. The combination of all the EASE areas can allow you to consume a wider range of carbohydrate without weight gain than would obtain with diet alone.

Changing your environment to support your progress can be the single most important factor that helps you succeed with ease. There are many triggers in your environment to eating or other behaviours and emotions that you can modify. It may be best to remove from the household those items upon which you may tend to binge if readily available. Consider replacing them with things you enjoy and which serve your program better.

The most powerful influence in your environment is that of your significant others. Enlisting the support of your family members and especially including them in the program makes it vastly easier to stick to your regime. The plan can be adapted to serve nearly everyone in the household. For those who do not desire to join you, it is still most helpful to enlist their agreement to support you.

Feedback is vitally important to keep you on track and moving toward your goals. Some authors have recommended weighing yourself no more than once a week. The argument is that, as weight may fluctuate a bit from day to day, you get a truer picture by checking less frequently.

Although this argument sounds good, I have found that it works poorly. Weight may also fluctuate on the days you are testing and a single measurement may be misleading as to the actual direction your weight is going. Most importantly, as you

eat more than once per week, getting more frequent feedback serves as an incentive to stick to your plan. If you find your weight is a little up one day, it does give you a nudge to be more diligent that day. Adding up a whole bunch of small pushes over time can lead to a big push in the direction of the body you have always desired to have.

In general, the more frequent the feedback, the tighter the control you can achieve. This is true of sending spaceships to the moon, perfecting an artistic performance, as well as getting off extra pounds and keeping them off. Whatever your method, it is best to do your measurements at similar times of the day so that the natural fluctuations of weight during the day will be tracked at the same part of the cycle. This will tend to give you a more reliable indicator of day to day variations.

Weight is not the best measurement to track your progress, but it is usually the most convenient. The ideal readings to follow are those that indicate body composition – fat versus lean body mass. The gold standard for this measurement is immersion testing. This involves measuring the body in and out of water and is the most accurate test available. Measuring skin fold thickness with special calipers gives a somewhat accurate Measurement; but it is time consuming.

A breakthrough in body measuring technology is a new form of scale that uses an electronic technique. Passing a tiny current through the body, so small it isn't felt, the scale can determine the percent body fat and weight at the same time with nearly the accuracy of immersion testing. This method is much more convenient and gives you a true reading of how your body composition is changing. Such measuring devices are also readily available in many retail stores.

The results you are shooting for are reducing your body fat while preserving and ideally increasing your lean muscle mass. Once you have your weight and percent body fat, simply multiply your weight by the percentage. This gives you the total fat weight of your body. Subtracting the fat weight from your total gives you your lean body mass. As you track your progress observe for the pattern of your program that gives you a gradual drop in percent body fat while your muscle is preserved or increasing until you reach your sculpting target. You can then define the program that allows you to maintain your gains in the most efficient or enjoyable manner.

If it is not feasible to measure your body composition precisely, indirect measures can also serve if observed carefully. The hallmark of burning fat and building muscle is losing inches rather than pounds. Measuring your waist, hips, thighs and upper arms will give you a good idea of your progress. If you would like the path of least effort, tracking the fit of your clothes will give you a rough estimate of whether you are going in the desired direction. If nothing else count belt notches striving to increase your number of notches over time.

To get the best results with the EASE program, implement the scoring system as consistently as you can. The system is designed to assess your efforts daily as you are working toward your ultimate goals. Once you have achieved your target you can then define the maintenance plan that will sustain your target in the way that fits best with your lifestyle.

This program gives you many ways to score fat burning points. There are also actions that result in point deductions. This provides you with a wide range of options to choose from to put your body into a fat burning state and keep it there. Based on your level of metabolic resistance, the score you need to achieve may be higher or lower than that which somebody else requires.

In general, a less intense program will enable you to maintain your target, especially as weight loss tends to lower metabolic resistance. The key to sustained success will be creating a lasting change in your patterns of diet, activities, supplements, and the use of your mind. If you are not already at your goal, the pattern you've been in hasn't worked.

Different weighting points are given to the scored areas as each item may have a greater or lesser impact on your ability to burn fat and keep it off. These "weightings" are based on estimates of the degree to which each action reduces insulin levels or improves sugar metabolism, suppresses appetite and sugar cravings, or increases metabolic rate. As more experience is gained with this program, the weighting system may undergo modifications and enhancements based on the observations made.

If you truly desire the program to work for you, it is strongly advised that you go for as strict a degree of carbohydrate reduction as you are able. If you push to the ultra low levels advised by Dr. Atkins – only 20 grams per day for the first two to three weeks – you are likely to see such quick results with so reduced an appetite, the rest of the program may become easy for you. It is especially important to limit your intake of simple sugars during the early phases of your body reshaping.

It is suggested that you begin your program at a high point level – at least 180 of 360 points. You can always ease back to a lighter range if you choose to lose the weight more gradually or as you strive to define your maintenance level. Using adjunctive supplements is an easy way to raise your score. Physical activity tailored to your likes and shaping desires is a great boon to get your fat burning primed and moving on all cylinders.

Once you have begun, regardless of your starting level, the utmost value is in having feedback about your personal metabolic response. As you survey how your actions and scoring have provided results, you will have a platform for fine tuning the adjustments. You will define your threshold levels at which you will lose weight and the range at which you can maintain the weight achieved. If you have done well on the program and find you are gaining back the weight, it is best to go back to a highly restricted intake of carbohydrates that will usually rapidly reverse the tendency to weight gain.

If you have achieved your desired maintenance weight and are lowering the intensity of your plan, it is wise to follow your weight very closely. You may tolerate small swings, but give yourself a threshold above which you intensify your program until you get back to your target weight. The goal is to create a new long-term pattern that will keep you where you choose.

In using supplements it is appropriate to start off at the low to moderate range, assess results, and adjust the levels to the desired effects. If partial but not complete results are achieved, you may advance you intake to the higher end of the intake

range, as long as you feel free of side-effects. The supplements you may consider pushing to the upper range of recommended intake are those that specifically promote fat burning, body sculpting, and relief of food cravings.

Other forms of supplements may support your overall program. Garlic not only has a blood cleansing antitumor action, consuming garlic may also lower cholesterol. Cinnamon not only has a pleasing aroma and flavour, using 1-2 teaspoons a day has been associated with improved regulation of blood sugar levels. There are recent homeopathic remedies such as a homeopathic patch that are reporting weight loss benefits. Nutrition specialists and herbalists may be able to give you a variety of alternatives.

Structuring a personal program that covers all major areas at once allows for a synergy of beneficial effects. For example, the low insulin fat burning state induced by low carbohydrate intake increases the degree of fat burning for a given level of exercise.

Ultimately, the central hub of the EASE program is the ability to moderate your carbohydrate intake intelligently and sensitively. A large enough load of carbohydrate can overwhelm almost any other set of actions in the program. With extreme enough carbohydrate restriction to the Spartan level almost anyone will be able to lose weight readily. The habit of tightly monitored carbohydrate intake, supplemented with the rest of the program, is highly likely to be met with great success.

Persons with serious cardiovascular problems, diabetes, and other medical conditions should be monitored and advised by their health care practitioners. For some persons, medications may need to be adjusted carefully. Often, as weight is brought under control, less medication is required for cardiac, diabetic, and blood pressure regulation. In other situations, the entire treatment program may need to be modified and followed closely. Physician input is advised for any major new health regime.

The EASE program gives you summary information about many aspects of the physiology and the process of weight loss, initial and sustained. You are encouraged to seek out and read the primary references and documents to have a broader and more detailed knowledge of the fine points of achieving and maintaining weight loss, improved fitness, and greater well being. The more you understand and apply the principles, the better and faster and longer lasting the results you are likely to achieve.

As populations are assessed as to their results with this program, the weighting and emphasis of EASE scoring may be modified over time. In the least, this provides you with the starting point for a comprehensive plan individually suited to your body shaping goals.

You are wished every success in embarking on and personalizing this plan. You are invited to give us feedback on how well this works for you and any suggestions for improvements. May you easily and gracefully achieve your goals and look back and wonder how you could ever be other than the fit and trim new you.

EASE SUPPLEMENTATION CHART

PURPOSE INGREDIENTS GEMATRIA FORMULAS

PURPOSE	INGREDIENTS	GEMATRIA
Fat Burning	Acetyl-L-Carnitine Co-Q10, Chromium L-Carnitine L-Glycine	Lite Body Gems Dual Carnitine
Appetite Suppressants	L-Phenylalanine L-Tyrosine	Lite Body Gems GemBalance
Reduce Cravings	L-Glutamine L-Glycine 5 HTP	Lite Body Gems
Lipotropic (fat melting)	Choline Inositol L-methionine Betaine Hydrochloride	LIPO HeartGems
Metabolism of Fats Protein and Carbohydrates Improved Digestion	Vitamins B1, B2, B3, and B6 Vitamin C Chelated Magnesium, Zinc, Manganese, and Selenium.	Lite Body Gems

EASE SCORING PLAN

DATE: _____

EASE TOTAL SCORING

Eating:

Activities:

Supplements:

Endeavours (Habits):

Total Ease Points:

Minus Total Deductions:

Grand Total Points:

TRACKING MEASURES

I. Weight :

II. Percent body fat:

Body fat weight:

Lean Body Mass

III. Other Measurements

Waist:

Hips:

Upper Arms:

Dress Size:

Belt Buckle notches (Same Belt):

General fit of Blue Jeans:

EATING ESTABLISHES EASE

1. Control carbohydrate intake:

If less than 20 grams total, score **60 points**.

If 20 - 40 grams total, score **40 points**.

If 40 - 60 grams total, score **30 points**.

If 60 - 80 grams total, score **15 points**.

If 80 - 120 grams total, score **5 points**.

2. Eat dinner as early as possible:

If completed by 6PM, score **15 points**.

If completed between 6 - 7PM, score **10 points**.

If completed between 7 - 7:30PM, score **5 points**.

3. Eat breakfast, lunch, and dinner:

If you begin in morning, score **10 points**.

4. Snack whenever hungry (within one hour).

If you avoid prolonged hunger, score **5 points**.

5. Limit sugar intake:

If you consume less than 5 grams refined sugar, score **5 points**.

6. Eat hot spicy foods to boost your metabolic rate.

If you eat at least one very spicy meal, score **5 points**.

7. Consume high quality protein foods.

If you have at least two servings of fish, poultry, meat, soy protein, milk, or eggs, score **3 points**.

8. Eat fresh salad greens and non-starchy vegetables:

If you eat at least one cup daily, up to your carbohydrate limit, score **3 points**.

9. Avoid lifeless devitalized processed foods.

If you eat no processed or partially hydrogenated foods, score **3 points**.

10. Consume foods rich in essential fatty acids.

If you have at least one serving of flax oil, oily fish, sunflower seeds, or walnuts, or a balanced omega-3 and omega-6 essential fatty acid supplement, score **3 points**

11. Consume cold beverages (preferably water):

If you drink at least one quart daily, score **5 points**.

12. Ingest water vigorously:

If you drink at least two litres of water score **3 points**.

ACTIVITY ACCELERATES ACHIEVEMENT

1. Aerobic minutes:

For each minute of brisk activity, score **1 point, up to 25 points**.

2. Perform anaerobic (muscle building) exercise:

If you do 45 minutes or more total for the day, score **25 points**.

If you do 30 - 45 minutes total, score **20 points**.

If you do 15 - 30 minutes total, score **10 points**.

If you do 7 - 15 minutes total, score **5 points**.

If you do 3 – 7 minutes total, score **3 points**.

3. Exercise within one half hour of meals:

Every time you do 5-10 minutes of brisk activity within half an hour of a meal, **score 5 points, up to 15 points**.

4. Rebound gently to stimulate lymphatic flow:

If you do for 10 or more minute's daily total, score **10 points**.

If you do for 5 -10 minutes daily total, score **5 points**.

5. Lift weight early in the morning.

If you are so bold as to lift weights between 2AM and 4AM, peak muscle growth hours, score **3 points**.

6. Warm up muscles before exertion:

If you do a few minutes of light aerobic activity before stretching, score **3 points**.

7. Stretch muscles before heavy exertion:

If you stretch after muscles are warm, score **3 points**.

8. Notch up intensity as fitness permits.

If your improving fitness permits you to slightly increase exercise duration or intensity, score **3 points**.

9. Cross train for better balance:

If you do more than one kind of aerobic activity on the same or consecutive days, score **3 points**

SUPREME SUPPLEMENT SENSE

Thermogenic boosters promote fat burning and increase metabolism

1. L-carnitine, for transporting and burning fat:

If you take 500-1000mg per day (provided in *LiteBody Gems and Dual Carnitine*), score **10 points**.

2. Coenzyme Q10, the cellular engine of energy generation and fat burning:

If you take at least 20-25mg per day (provided in *Lite- Body Gems*) score **9 points**.

3. Other thermogenic accelerators:

If you take any of the thermogenic factors; Inositol (present in *LIPO*), Pyruvate, or Alpha-lipoic Acid, score **5 points** for the day.

4. Catabolic amino acids to jump start metabolism:

If you take Methionine, Taurine, Cysteine, Asparagine, and Glutamic Acid timed between 4PM and 10PM (all are present in *LiteBody Gems*, Methionine at high levels is provided in *LIPO*), score **3 points** for the day.

5. Thyroid hormone boosters to support and enhance basal metabolism:

If you take Iodine, Tyrosine, and Manganese (provided in *LiteBody Gems*), score **3 points**.

6. Amino acids that increase Growth Hormone release, for fat burning, muscle building and rejuvenating actions:

If you take L-ornithine or, L-arginine, at least 1.5 grams at bedtime, score **3 points**.

Specific supplements have been shown to reduce appetite and decrease sugar cravings:

7. Amino acids which suppress the appetite:

If you take 250-500mg of Phenylalanine or Tyrosine before one or more meals (provided in both *GemBalance* formulas), score **10 points** for the day

8. Amino acids which decrease sugar cravings.

If take 50-100mg of 5HTP, before one or more meals score **10 points** for the day.

9. Other sugar craving relieving amino acids:

If supplement with glutamine before one or more meals (present in *GemBalance*), score **7 points** for the day.

If you supplement with Glycine before one or more meals (present in LiteBody Gems and at higher levels in the Super Power Mix), Score **3 points** for the day.

10. Chromium burns fat, lowers insulin resistance, and improves blood, sugar regulation:

If you take 200 micrograms per day of a well absorbed form (provided in *LiteBody Gems*), score **10 points**.

11. Chelated minerals, trace elements, and vitamins give the components needed for complete metabolic pathways:

If you use a balanced, spectrum of factors, (present in Lite Body Gems), score **7 points**.

12. Laser enhanced amino acids and energized metabolic water formulas:

If use any of the laser enhanced amino acid forms Score **10 points**.

ESPECIALLY EXCELLENT ENDEAVORS

1. Drink water first when you are hungry:

If you drink enough water to quench your thirst before eating snacks, score **10 points**.

2. Think positively:

If you monitor your thoughts to ensure that at least half of your mental content is positive, score **10 points**.

3. Turn on bright lights promptly upon awakening:

If you turn on bright lights or bathe in sunlight within 15 minutes of awakening, score **5 points**.

4. Be active upon arising:

If you walk briskly or do comparable activity within half an hour of arising, score **5 points**.

5. Toss the bed covers:

If you reduce your bed covers to the lowest level needed for sleep, score **5 points**.

6. Minimize TV viewing.

If you watch less than one and a half hours per day score **5 points**.

7. Listen to soft slow soothing dining music.

If you play soothing music or dine in quietude for most meals, score **5 points**.

8. Savour food slowly and with awareness:

If you take the time to be aware of and enjoy the attributes of your food, thereby eating more slowly and consciously, score **5 points**.

9. See yourself as having the body you most desire.

If you do this well, this may be all you will need to achieve your goals. If at least twice a day, you relax deeply and see the image of yourself as already having the form and vitality of your highest ideal, score **10 points**.

EASE DEDUCTION AREAS

1. Major carbohydrate splurging:

If you consume over 180 grams of carbohydrate at any single meal, **deduct 60 points.**

2. Excessive alcohol consumption:

If you have 2 drinks at a meal, deduct **30 points.**

If you have 3 drinks at a meal, deduct **45 points.**

If you have 4 or more drinks at a meal or altogether during the day, **deduct 60 points.**

3. Eating late dinners:

If you begin dinner after 8PM, **deduct 20 points.**

If you begin dinner after 9PM, **deduct 30 points.**

If you begin dinner after 10PM, **deduct 45 points.**

4. Not eating food or drinking fluids when feeling hungry:

If you feel hungry for 2 or more hours and do not consume food or fluids until you feel satisfied, **deduct 15 points.**