How To Sculpt A
Leaner, Healthier
Body
in 12 Weeks

This book is dedicated to the memory of my grandfather, Pavlos Rombis
June 13, 1920 - June 27, 2001

TESTIMONIALS

“The book is very well written and researched. I was particularly impressed with your common-sense approach to vitamins and supplements. Your information on fitness for exercise was medically correct, nicely presented and very practical.”

Dr. Bruce Evans, M.D.

“I would recommend this book to anyone who is interested in building a better body and enjoying the benefits of a healthier lifestyle. It is full of understandable and useful information. Whether you are a health expert looking for tips or a beginner wanting to get on the road towards a leaner healthier body, this book will prove a useful resource.”

Dan White
President, WNBC

“It is a very informative, straight-to the-point book that gives you a ‘real’ look at building a better body. Its simplicity makes it easy to understand, retain, and follow. I recommend it to anyone who feels they want to be in better shape.”

Rocco Curcio
Business Consultant

"George Stavrou takes a well-balanced, common-sense approach to fitness. His book explains the many facets of a healthy body in understandable terms. He knows that achieving your fitness goals won't happen overnight, and presents a doable, step-by-step plan. "How to Sculpt a Leaner, Healthier Body in 12 Weeks" is a great little book for a healthier you."

Peggy Murrah
"http://www.webmarketcoach.com"

“I love this book! It is simply written and clearly explains the essentials of achieving optimal health. I would definitely recommend it to anybody who wants to improve their overall fitness".

Mitch Meyerson
Director of Guerrilla Marketing Coach

"George Stavrou's new book has ignited my passion to make a commitment to my exercise and diet program. As a self -employed businessman, I have put my health at the bottom of priorities in the past...NO MORE..with George as my "Health Coach" I look forward to seeing the "New me" as I progress with his plan. I have recommended this book to my business and social Network. Thank you George and Hats off for a Best Seller!"

Paul Schwend, Vice-President
Professional Insurance Agents of Florida"

“Reactive care has gone the way of the dinosaurs, but wellness and self-care are being demanded by general population.

George has written a great book for beginners that covers the important fundamentals of improving the physical machinery we call the body.

His book is easy to read and understand with a no nonsense approach, while he educates, challenges, and motivates you to a healthier body in 12 weeks.

Pick it up and let the sculpting begin.”

Rick Lee, D.C.
Chiropractor

“George has obviously done a considerable amount of research in order to put this book together. He is very informative and to the point. Throughout this book, he provides an enthusiastic step-by-step approach to fitness, which can easily be followed by anyone. The book is a realistic and individualised guide to “the better you”. Many options are provided and not too drastic a change is expected from you. You set your own goals and choose your own routines. it allows you to be your own Personal Trainer!”

Jennifer Ebuenga
Graduate Nurse

Body Sculpting Corp.
181 Linden Avenue
Toronto, Ontario
Canada
M1K 3J1
416-267-0856
1-888-669-6383
Fax: 416-267-9300
www.bodysculpting.ca

INTRODUCTION

About the Author

Hello fitness enthusiasts. Allow me to introduce myself. My name is George Stavrou and I am the President of Body Sculpting Corp., a company that specializes in at-home and on-line exercise programs for people that are either too busy to go to the health club and/or are not getting the attention that they deserve once they are there.

I am certified as a personal trainer through the Canadian Personal Trainers Network (C.P.T.N.) and the Ontario Fitness Council (O.F.C.). I am a Certified Fitness Consultant (C.F.C.) which allows me to administer the Canadian Physical Activity, Fitness & Lifestyle Appraisal (C.P.A.F.L.A.) To round out the list, I also hold a B.A. in Psychology from York University.

I have been in business since 1995 and have trained or consulted with hundreds of individuals from many walks of life, including presidents of companies, athletes, working mothers, obese individuals, and mostly the average person who wants to improve their health and fitness levels.

How This Book Came About

I feel that there is a growing need for first class information for people who want to improve the quality of their lives. From my experience, I have noticed that there are many people that want to improve how they look and feel but do not have the necessary information to accomplish this. Many have tried fad diets, bought the latest gadgets from infomercials (some are good but the majority are useless), and searched for the magic pill to instantaneously transform their physiques and health over-night. Sorry to say, but it doesn't work that way. I wrote this book to fill the void in people's lives that other methods don't fulfil.

Why Is It Important For You To Read This Book?

I believe that it is important that you read this book because I tell it like it is. If you want long-lasting results, then reading this book is the first step in a journey that will change your life. While many books focus on only one aspect of fitness, I cover what I believe are the main areas you will benefit most from. You do not have to give 100% effort in every chapter (obviously, if you do - the results will be extraordinary), but small changes in each area will give you the results that you are looking for.

What Can You Expect To Gain By Reading This Book?

By following the suggestions in each chapter, you can expect many benefits such as increasing your metabolism, greater energy, higher self-esteem, improving muscle tone, looking and feeling better, better health, enhanced cognitive functioning, stress reduction, and lots more.

Why 12 Weeks?

I believe that the best approach to take in the project of good health is to start a little at a time and to make it a life-long habit. In as little as 12 weeks that is exactly what can happen. If you make small changes on a regular basis, you will build upon homework from each previous week. By the end of 12 weeks, you will be enjoying the benefits of a leaner, healthier body.

I'm assuming that you have no previous exposure to fitness. If you have some experience and/or are currently following some of my suggestions and programs, feel free to move on to the next recommendation.

Do not attempt to implement all of the changes at once.

This is very important! If you have been inactive for a long period of time and/or your diet consists of a large amount of processed and junk food, following all the changes at once can be a tremendous shock to your system. This may cause you to stop the program prematurely, or even worse, terminate it entirely.

Keep in mind that small changes that you can stick with will lead to the bigger changes down the road! Remember, to eat an elephant, you have to do it one bite at a time. Don't worry about the whole concept of good health; just enjoy each step, one day at a time.

DO YOU KNOW THE BENEFITS OF WORKING OUT?

There are many benefits you will receive from working out on a regular basis. Listed below are some interesting facts that may convince you to be more active:

Increased Metabolism:

This is due to having more muscle. Generally, for every extra 1 lb. of muscle that you carry, you burn an additional 50-100 calories per day while at rest. Thinking long-term, that means a weight loss of 10 lbs. per year.

More Energy:

By working out on a regular basis, your body becomes more efficient at burning calories. This gives you greater energy throughout the day.

Improved Muscle Tone:

When weight training, you have the ability to change, within reason, the shape of your body. Depending on your goals, you can make some areas bigger or smaller. Muscle takes up less space than fat: since muscle is denser than fat, you can be the same weight but a smaller, leaner version of yourself. Don't always rely on the scale when working out; pay attention to how your clothes fit instead. Generally speaking, if your clothes are getting looser then you are gaining muscle and losing fat.

Enhanced Self-esteem:

When following an exercise routine on a regular basis you bring about greater self-esteem through your accomplishments. This improved self-esteem carries over into other areas of your life.

Looking And Feeling Better:

This is an obvious one. By working out you change your appearance and thus, feel better about yourself. Healthy people have a glow on them because they engage in physical activity often.

Enhanced Cognitive Functioning:

This means thinking better. This occurs because there is more blood flow to the brain, which means more oxygen and greater nutrients. You'll feel smarter and your memory improves.

Reduced Risk Of Injury:

When working out correctly on a regular basis, you strengthen your body and make it less prone to injuries. The more balanced your muscles are, the less likely that you will get hurt.

Stress Reduction:

Stress levels are reduced extensively by working out often. This also promotes lowered blood pressure.

Better Health:

It's been proven that you are less likely to become ill when exercising correctly. This is due to having strengthened your immune system. If you exercise too often, too intensely, or worst of all, not enough, you actually weaken your immune system. Balance is key.

PAR-Q & YOU

Physical Activity Readiness-Questionnaire:

Below is a form called the PAR-Q: a Physical Activity Readiness Questionnaire that determines if you are at risk before you decide to become more physically active.

Regular physical activity is fun and healthy, and increasingly more people are starting to become active every day. Although it is safe for most people, some should check with their doctor before they start.

If you are planning to become much more physically active than you are now, start by answering the following PAR-Q. If you are between the ages of 15 and 69, it will tell you if you should check with your doctor before you start. If you are over 69 years of age and not used to being very active, go ahead and check with your doctor.

Common sense is your best guide when you answer these questions. Please read the questions carefully and answer each one honestly: check YES or NO.

1. Has your doctor ever said that you have a heart condition and that you should only do physical activity recommended by a doctor?
2. Do you feel pain in your chest when you do physical activity?
3. In the past month, have you had chest when you were not doing physically activity?
4. Do you lose your balance because of dizziness or do you ever lose consciousness?
5. Do you have a bone or joint problem that could be made worse by a change in your physical activity?
6. Is your doctor currently prescribing drugs (for example, water pills) for your blood pressure or heart condition?
7. Do you know of any other reason why you should not do physical activity?

If you answered YES to one or more questions

Talk with your doctor by phone or in person BEFORE you start becoming much more physically active or BEFORE you have a fitness appraisal. Tell your doctor about the PAR-Q and which questions you answered YES.

If you answered NO honestly to all PAR-Q questions, you can be reasonably sure that you can:

Start becoming much more physically active. Begin slowly and build up gradually. This is the safest and easiest way to go. Take part in a fitness appraisal. This is an excellent way to determine your basic fitness so that you can plan the best way for you to live actively.

Delay Becoming Much More Active:

If you are not feeling well because of a temporary illness such as a cold or a fever, wait until you feel better; or

If you are or may be pregnant, talk to your doctor before you start becoming more active.

Please note: If your health changes so that you then answer YES to any of the above questions, tell your fitness or health professional. Ask whether you should change your physical activity plan.

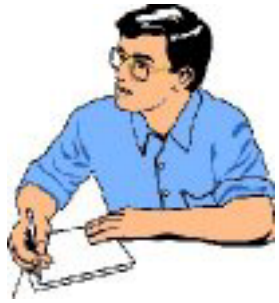
Informed use of the PAR-Q:

The Canadian Society for Exercise Physiology, Health Canada, and their agents assume no liability for persons who undertake physical activity, and if in doubt after completing this questionnaire, consult your doctor prior to physical activity.

Note: If the PAR-Q is being given to a person before he or she participates in a physical activity program or a fitness appraisal, this section may be used for legal or administrative purposes.

Canadian Society for Exercise Physiology

Supported by: Health Canada



MEDICAL CLEARANCE

Before beginning any exercise program, it is extremely important to consult with your family physician. I can't stress this enough. Generally speaking, if you answered NO to all of the questions on the PAR-Q then you should be in reasonably good condition to begin an exercise program. This does not mean that you can go out and run a marathon this weekend or begin an intense weight-training regimen suited for professional athletes. It means that you should start off exercising with minimal resistance and gradually increase the intensity. Speak to a certified personal trainer regarding an appropriate program to follow. If you are unclear about the exercise regimen that you are on or plan on using; show your doctor what you intend to do. He/she can give you guidelines to follow to ensure that you minimise any risk of injury.

ASSESSMENT

What Is It?

After receiving medical clearance, it is important to have a fitness assessment. A fitness assessment consists of establishing your present condition in a number of areas: Resting Heart Rate, Resting Blood Pressure, Current Body Weight, Body Fat Percentage, Lean Body Weight, Girth Measurements, Aerobic Fitness, Flexibility, Muscle Strength and Endurance Levels.

Why Is It Important?

It's important to know the results of your fitness assessment because it's easier to determine your fitness goals based on these numbers. If you don't know where you are right now, you won't know where to go. For example, let's assume that your current body weight is 150 lbs. at 20% body fat and based on your results, you want to be at 15% body fat. There are many ways to achieve your goal. You could: 1) maintain your current Lean Body Weight and lose ~ 9 lbs. of fat, 2) bulk up and add 50 lbs. of muscle while keeping your fat weight steady (an unrealistic goal for most people), or 3) combine the two approaches; lose fat while adding muscle. By doing both, you could still weight 150 lbs. by gaining 7.5 lbs. of muscle and losing 7.5 lbs. of fat. This is probably a healthier way to achieve your goal.

Motivation

Another reason to have an assessment done on a regular basis is to provide extra motivation when you see progress from one assessment to the next. By comparing your numbers, you can determine what part of your training program is working and what needs to be changed.

FITNESS GOALS AND EXPECTATIONS

You saw in the previous chapter the importance in having a fitness assessment done regularly. Now it is up to you to determine what to do with this information. It is very important to: 1) know what are reasonable expectations, 2) decide on your health and fitness goals, 3) know how to obtain these goals, and 4) write the goals down along with a plan of action to achieve them. Once you have completed these four main points, it's crucial that you follow through with them.

Expectations

Before you can decide on you various goals, you must determine reasonable expectations. I suggest that you get in touch with a Certified Personal Trainer that is qualified to administer the Canadian Physical Activity Fitness Lifestyle Appraisal (CPAFLA). He/she can help you determine what realistic goals you should be striving for. Male athletes might also want to read a great book entitled "Brawn" by Stuart McRobert. In it he discusses realistic size and strength goals for non-pharmaceutically assisted athletes (in other words, non-drug users). Generally speaking, regardless of your gender, if you increase your scores in the various fitness components as measured in the fitness assessment, you are well on your way to building a leaner, healthier body.

Goals

Now you are ready to decide on your various goals. You can break your goals down into short-term, medium-term and long-term.

S – specific
M – measurable
A – action plan
R – realistic/reliable/relevant
T – time frame

(S) pecific – instead of saying "I want to lose some fat" you may want to say something more specific such as "I want to lose 10 lbs. of fat"

(M) easurable – a goal should be measurable. In the above case if you want to lose 10 lbs. of fat you can measure this by having a Certified Personal Trainer take your body fat % and comparing it from one testing date to the next one.

(A) ction-plan. Do you have an action plan to follow to achieve this goal? If not, then the chance of attaining your goals are rather slim. Here is a seven-point Action Plan (taken from Psycho-Cybernetics 2000) 1) identify and write down your goals, 2) assign dates for the achievement of your goals, 3) identify possible obstacles, 4) surround yourself with positive supportive people that want you to succeed, 5) focus on your skills, 6) follow your plan of action, and 7) ask yourself "what's in it for me?" – sell yourself the benefits of achieving your goals!

(R) ealistic – if you have not been active for a number of years and your diet is extremely poor losing 10 lbs. of may be unrealistic for you

(T) imeframe – are you looking at a realistic time frame for your goals?

Short-Term

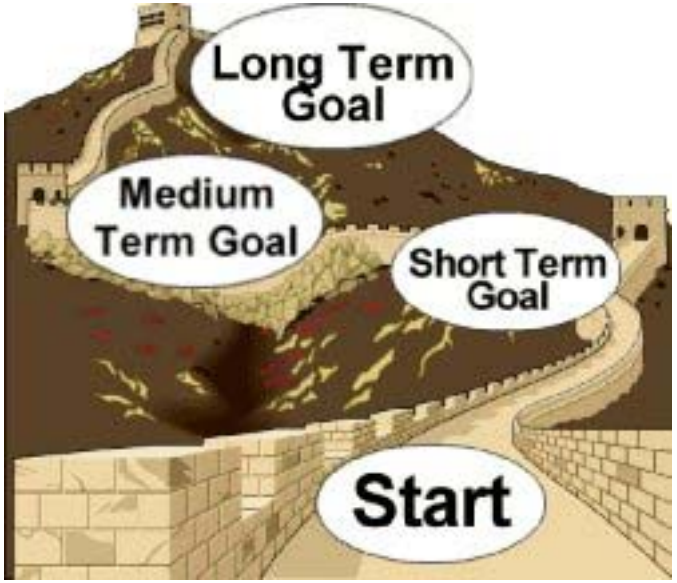
For example, eating healthy and exercising just for today. By living one day at a time it is easier to maintain the discipline needed to obtain your other goals. Also, it reduces your stress levels by allowing you to focus on a shorter, more obtainable goal.

Medium-Term

The next step is working on a medium-term goal. This could be exercising and eating healthy for a period of one week. One approach that I take with my clients is to use a calendar to keep track of their progress. For example, if they ate properly one day, they would draw a diagonal line through that same day. If they worked out that day, they would draw another diagonal line and make an "X". By following this method, they would have visual feedback on what their progress was like. If they had a day where they didn't feel like following through on their commitments, they would have to start counting over again. For example, if you underwent 8 days in a row on the program both eating right and exercising, but did not follow it for 1 day, and then followed the program for another 3 days. Do not say that you have been on the program for 11 days out of 12; instead, this would reflect that you have been on the program for 3 days (the amount of time that you have been consistent without any missed days).. A similar approach is taken with recovering alcoholics; they consider themselves sober from the last time that they had a drink.

Long-Term

A long-term goal might consist of following your routine for an extended period of time such as 6 weeks. You can make a noticeable difference in how you look and feel during that time frame. When committing yourself to a long-term goal, I recommend that you reward yourself in some way on a weekly basis, such as going to the movies with friends, buying a CD or tape that you would really enjoy, etc. Constant rewards can help you stick with the long-term programs longer than not giving yourself any rewards.



With regard to a plan of action, see my views in the Lifestyle & Weight Management section.

MEASUREMENTS

	Date 1	Date 2
Neck		
Shoulders		
Chest		
R. Arm		
L. Arm		
R. Forearm		
L. Forearm		
R. Wrist		
L. Wrist		
Waist		
Hips		
R. Thigh		
L. Thigh		
R. Calf		
L. Calf		
R. Ankle		
L. Ankle		
Resting Hear Rate		
Resting Blood Pressure		
Weight		
BMI (Body Mass Index)		
Fat Weight		
Lean Body Weight		

Body Mass Index:

Body Mass Index (BMI) is a formula that relates one's weight to their height. The formulas is as follows: kg/(m*m), where kg is the individual's weight in kilograms and m*m is the individual's height in metres squared. For example, an 80 kg man at a height of 1.85 m would have a BMI of 23.4 (80/(1.85*1.85)).

*Note: 1 kg = 2.2 lbs. and 1 inch = 2.54 cm

A healthy BMI is normally 20-25. A BMI of less than 20 can be due to extreme dieting or the effect of disease. A BMI greater than 25 can be due to two different factors: 1) high body fat or 2) appreciable muscle mass and/or heavy bone structure.

To find out where you stand, it's crucial to have your skinfolds measured. If your skinfolds are relatively low, then a higher BMI is acceptable. Talk to a Certified Personal Trainer about skin fold measurements.

For those of you that would like a more accurate measurement of your current condition I suggest that you read the information by Dr. Mauro DiPasquale on his Metabolic Index. See below

The Metabolic Index

The Metabolic Index (MIDx) is the best way to measure your progress while you're on the Metabolic Diet. The MIDx takes into account all the variables that other methods can't. Not only does it address the height/weight issue but also the degree of body fat. With the MIDx you get a snap shot of your body composition and progress.

What is the MIDx and what does it measure? The MIDx is a ratio derived by considering not only weight and height but also your percentage of body fat. It uses a very easy formula for calculating. In fact, just fill in your weight in pounds, your height in inches and your bodyfat level as a percentage into the following formula and do the calculations.

Body weight in pounds divided by the height in inches squared and the results multiplied by 7,250 and the results divided by the percent body fat.

{(body weight in pounds) / (height in inches)2 * 7,250} / % body fat.

Go ahead and plug in some maybes and see how the MIDx changes as you drop weight and body fat and get toned.

My Metabolic Index
In my case, my MIDx is 185 / (66)2 * 7,250 divided by 10%

(185 / 4356) * 7,250 / 10 MIDx = 30.8

Even though I'm heavy for my height, I have a fair amount of muscle mass and a low body fat. So rather than looking fat I look trim and muscular.

Once you've established your baseline MIDx it's easy to objectively see if you're making progress...

Let's say that I go on the Metabolic Diet and get down to a minimal 175 lbs and 8% bodyfat. My MIDx would then be 36. The increase in the MIDx shows that at 175 lbs. and 8 % bodyfat I'm carrying less fat in proportion to my muscle mass than at 185 lbs. and 10% body fat. This shows that I'm making good progress although my muscle mass and body fat levels are more extreme than most men would want but not as extreme as a competitive bodybuilder might want.

The important thing about the MIDx is that it will give you a starting point and from there an indication of how you're progressing every step of the way. Once you've established your baseline MIDx it's easy to objectively see if you're making progress, if you're losing body fat but not at the expense of important muscle mass. If the MIDx is going up, even minimally, you're making progress.

The higher the Metabolic Index, up to a point, the better your improvement and the closer you are to your goals. The lower the Metabolic Index is, the more room for improvement there is and a determination of just how much more you have to go to reach your goals.

The ideal for the average woman is different than the ideal for average man. For women the ideal is around 13 to 20 while for men it's between 22 to 32. In reality the final point doesn't really matter since it's the improvement that counts. As long as the index keeps going up then there is some improvement being made. Once the index gets above 18 for women and 32 for men you're looking at muscle mass and body fat levels that are too extreme for most of us but not to those who aspire to bodybuilding and competitive fitness standards.

In reality, the MIDx is an indicator that when you're losing weight you're close to maintaining or even increasing lean body mass as you lose body fat. In fact, the more lean body mass you have and the less fat the better the index. If someone loses even a lot of weight but loses too much lean body mass the index won't improve all that much. What that means is that even though the person has lost weight they look very flabby and therefore lost the weight by sacrificing muscle mass. This is exactly the opposite of what most people want. They want to lose weight but they also want to look slim and trim.

Now that you've got something to accurately measure your progress, let's get at it by following the Metabolic Diet and working out.

*Note: The Metabolic Diet is an eating plan that is specifically designed to maximize fat loss while increasing muscle gains. It will be discussed briefly in the chapter on Nutrition.

FAT LOSS VS. WEIGHT LOSS

Is There A Difference?

You betcha'! Many people are under the assumption that they should weigh a certain amount. Often they arrive at this value by reading obsolete height/weight charts that don't take into consideration body fat percentage or, they base it on a weight they were 10 years ago. I'm here to tell you what to look at and what not to look at. First, I will focus on the difference between fat and weight loss.

What's the Difference?

Weight loss is basically the difference shown on the scale over a period of time. The scale doesn't tell you much, though; was it good or bad weight that you lost? Fat loss is different. It may not show up as a difference on the scale. Let me give you an example. Barbara is a client that I recently performed a fitness reassessment on. Before the assessment, she was concerned that she was not reaching her goal of losing 12 lbs. of fat. She noticed a 3 lb. loss on the scale. Her re-assessment revealed that she had gained 6 lbs. of muscle and lost 9 lbs. of fat; hence the 3 lb. difference. If she had gained 9 lbs. of muscle instead of 6, there would have been no difference on the scale. The re-assessment, actually helped Barbara recognise that she was indeed on her way to reaching her goal.

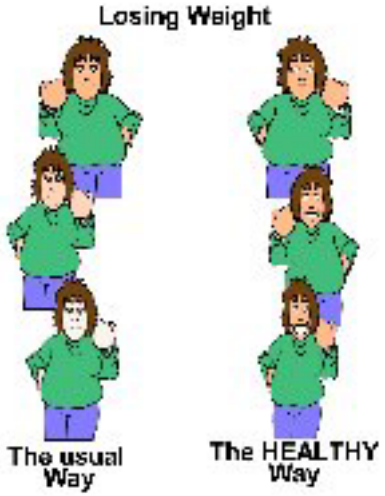
You may recall in the chapter on fitness assessments that muscle is denser than fat. Remember this when you are monitoring your FAT LOSS. In the early stages, I advise avoiding the scale and instead, paying attention to how your clothes fit. Muscle takes up less space than the same weight in fat. It took a while to put on the weight; it will take some time to lose it. Don't crash diet. You'll likely regain the weight and become a fatter version of yourself.

The Healthy Way Vs The Unhealthy Way

Below is a picture of twin sisters that wish to lose fat. The sister on the left is on a crash diet and goes about losing fat THE UNHEALTHY WAY that is so common for many people: they starve themselves and when they DO eat, they eat the wrong foods such as cakes, cookies, etc. In the early stages, they may notice a difference on the scale but the weight loss is mainly due to decreased muscle mass and water
loss.

The sister on the right is a little heavier than her twin to begin with but she sought out the expertise of a Personal Trainer. She knows that it took some time to put on the weight so it should take some time to lose fat THE HEALTHY WAY while maintaining or possibly increasing her muscle mass and raising her metabolism.

I will let you be the judge as to who looks healthier and is happier with the results that she has achieved.



LIFESTYLE & WEIGHT MANAGEMENT

In this chapter, I will look at areas in your life that can be modified to help you with your health and fitness goals.

Time Management

One of the biggest excuses that I hear from clients is that they don't have enough time in the day to work out! I have difficulty believing this. We all have 24 hours in a day to accomplish what is important to us; the key is deciding on what is important to YOU! Before I go on, I would like you to write down, on paper, everything that is important to you. After doing this, I want you to prioritise this list from most to least important. If you did everything on the list separately, how long would it take you to accomplish them? Can you combine some of the activities? Can you free up some time during your day? If becoming healthier is not high on your list, then it is unlikely you are seriously ready to make healthy lifestyle changes.

Be Honest With Yourself

I want you to do an exercise for one day; carry a note-pad with you when you first wake up to when you go to bed at night. Write down everything that you do in the course of a typical day and I do mean EVERYTHING! Take an honest look at where you spend your time. A) Did you spend your lunch hour gossiping at work? B) Did you put your feet up when you got home from work and nap for a couple of hours? C) Did you spend time watching TV? What else did you do during the day that could have been better spent doing something more productive? Let's look at each example and see how we can improve it.

Possible Suggestions

A) Instead of spending your lunch hour (60 MIN?!) talking about shortcomings in others', you could have eaten your lunch and gone for a brisk walk.

B) Take a 15 - 30 min. nap if you need it instead of 2 hours. Studies have shown that a nap of not more than 30 minutes helps you feel refreshed and more alert. Sleeping longer than 30 minutes is not recommended as it can affect the quality of your night-time sleep. With the extra time that you are awake you could be doing more; such as working out.

C) If you need to watch TV, try to combine tasks. For example, throw a load of laundry in the wash, put some dinner in the oven, and jump on your exercise bike for 30 min. By following these suggestions, you would have completed many more things on your list. The time regained during the day would be at least 2 hours! Try doing this exercise not just for 1 day, but also for 1 week!

Keep an eye on what you do (or rather, what you don't do) on the weekends. Are your weekends as productive as they could be? Another suggestion is to write down what you plan on doing for the next day. As you complete your objectives, check them off. This will give you a sense of accomplishment.

Have a sense of urgency in your life. Nothing bothers me more than people shuffling their feet and going in slow motion. Pick up the pace! Think of how much you accomplish when you know that you only have a limited time to complete your tasks. It's surprising how quick and efficient you become when you put your mind to it.

Be Prepared

What else can you do to add more quality time in your life while staying healthy? Try preparing your meals ahead of time. Contrary to what many people think, it does not take much time to prepare fast and healthy food. You could spend some time every day cooking your food OR you could spend a 1/2-day on the weekend making enough food for the entire week! By doing all of the cooking at once, you free up major time in your life. An approach that I often use is cooking various meat, grain and vegetable dishes in advance. By taking this approach I can combine 1 type of meat with 1 type of grain or vegetable dish. This way I have a unique meal every day of the week. I suggest refrigerating some of the food and storing the rest in the freezer in microwaveable containers for later use. Also, date and label each food item for future reference.

I have a few other suggestions that you may find helpful

1) You can bring a Meal Replacement Powder in a Thermos pre-mixed with water or milk. Store this in your refrigerator at work until you are ready to drink it.
2) Prepare healthy foods that you enjoy eating! If you don't enjoy the taste of the foods that you are eating you will be tempted to replace it with fast foods.
3) Invest in home gym equipment. If you find that you are skipping workouts due to a busy schedule it is helpful if you have a mini-gym at home. An adjustable bench, a variety of dumbbells and a Swiss Ball will help you stay on track on the days you are unable to train at a gym.
4) Get rid of the junk food! It is so much easier to stay on track with your diet if you eliminate ALL junk food from your home.
5) Use food substitution to help you get through the challenging times. Instead of eating chips, try pretzels. You do not have to give in entirely to your cravings – just choose food that is the lesser of the two evils.

6) Be organized with your supplement usage. Are you forgetting to take your vitamins and supplements throughout the day? If so, purchase a simple supplement carrying case to take with you during the day. Additionally, make a list of the supplements and when to take them. Check them off of the list as you have them.

The Juggler

An analogy that I use with some of my clients regarding time management is the Juggler at the circus. He/she has a certain number of items up in the air that need attention. Many people spend too much time on trivial tasks and very little time on important tasks.

The Juggler gets around this by spending more time on the high priority items and less time on the lower priority ones. High priority items for the Juggler are handled more often while lower ones are up in the air more often. The diagram below is how some, but not necessarily all, people view their lives.
Ultimately, it is up to you to decide on what is important to you and what you want to focus upon!

Plan Of Action

After determining what is important to you, it is essential that you have a plan of action. I prefer to use Stephen covey's approach from his book "First Things First". Schedule time for all the important things first. Make sure that you accomplish your objectives before going on to the items lower on your list.

How To Schedule

Don't have too tight a schedule where you are rushed for time or don't have room for emergencies that may come up. Instead, schedule blocks of time to accomplish your daily activities while leaving room for crises that may arise. Also, do your agenda ahead of time; not on the day that you're going to follow it. By planning it ahead of time, you are being proactive rather than reactive. I used to do my schedule the day that I needed it but often got diverted by insignificant items that hindered bigger goals.

Keep in mind that the cumulative effect of a lot of SMALL changes in your lifestyle can lead to BIG changes in your health and fitness.

Week 1: Homework

PAR-Q, Medical Clearance, Fitness Assessment, Goals, Measurements, Lifestyle and Weight Management

This first week will be a busy one for you but will be worth it in the long run. By establishing where you are now and what your goals are, you will find it easier to follow through with the remaining 11 weeks. Also, find ways of fitting in exercise and better eating habits. You do not necessarily have to start eating better and exercising this first week but make sure that you have made it a priority in the upcoming weeks.

WATER

Water, Water Everywhere

What is the most abundant substance in your body that makes up 70-75% of your total body weight? The answer is WATER. Water is involved in every bodily function known to us. That is why it is important to consume large quantities of this essential and beneficial liquid on a daily basis. You can go a few days without food but can not survive longer than one day without water.

Is Eight Glasses Enough?

Now that you know the importance of drinking water the question is "How much water should one drink?" The standard answer of (six - eight) 8 oz glasses per day just doesn't cut it. I'll explain why in a moment. Consider the fact that people come in various shapes and sizes. Does it make sense to you for a 5'0" tall girl weighing 100 lbs. to drink the same amount of water as a 6'6" professional athlete weighing over 230 lbs.? It doesn't make sense to me!

How Much Do I Need?

From my experience, a general guideline on water consumption is to take your weight in pounds and multiply it by 0.5 - 0.6 oz/lb. For example, if you weigh 200 lbs. you should be drinking 120 oz of water per day (200 X 0.6). This works out to (12 - 15) 8 oz glasses per day. At first glance it may seem like a lot of water but you are not drinking it all at once. If you sleep an average of 8 hours per night, you are awake for 16 hours. By drinking 1 glass every hour, you will meet your quota of water for the day.

An approach that you may consider using is carrying your water in a 4-L jug. Determine approximately how much water you need and mark it off on the side of the container. Then fill up what you require to last you throughout the day. If you finish all the water in the jug by the end of the day, then you have met your water quota. This is a much easier method to gauge your water intake.

Watch Out For Dehydration!

A note about dehydration. If you feel thirsty at any point, chances are that you are dehydrated. This is your body's way of telling you to consume more water. When you figure out your water consumption for the day, remember that it is water alone; not overall fluid intake for the day. By this I mean drinking the equivalent amount in soft drinks and caffeinated beverages does not equal your daily water intake. Certainly soft drinks contain some water but there are so many chemicals added to them that they do you more harm than good.

Distilled Water, Spring Water, Tap Water - What To Drink?

A question that I am often asked by my clients is, "What kind of water should they drink? Tap water, spring, distilled or filtered water?" I don't claim to be an expert in the field but I prefer to drink tap water that has been filtered in some way or Spring Water.

I used to drink Distilled Water but no longer do so. I found that even though I would drink 5-6 L of Distilled Water on a daily basis I was often dehydrated and extremely tired! For the longest time I did not understand why this was but speaking to experts in the Personal Training industry cleared this up for me.

When water is Distilled (usually Steam Distilled) many of the minerals that are usually found in the water are no longer there. All we are left with is plain H20. Through the process of Osmosis - (the process whereby minerals or any other substance within a cell will move from a high concentration to a lower concentration to ensure that all cells contain the same percentage of the substance), we are taking minerals from a high concentration within the body to a lower concentration within the water we are drinking. To sum it up, Distilled Water leeches minerals from the body and I prefer to avoid it when possible.

Active People Need More

I have given you the general guidelines on water consumption for the average person. I will now touch on water intake for the active individual. There are many experts that believe active people should consume more water than sedentary people should. I couldn't agree further. Take this fact into consideration; muscle is composed primarily of what? You got it - WATER! The more active you are, generally speaking the more muscle mass you will be carrying. Therefore, you should drink more water to fuel the extra muscle mass and to keep yourself hydrated.

With regards to how much water you should drink, some experts recommend the following: 20-30 minutes before exercise drink 8-10 oz of water; every 10-15 minutes drink at least 3-6 oz; and have another 8-10 oz within 30 minutes following the exercise session. Remember that this is relative to your body weight and lean body mass. When in doubt, consume more water.

How Do I Know If I Am Drinking Enough?

A simple test to use to see if you are drinking enough water is to pay attention to the color of your urine. If it is yellow in color or cloudy - you know that you are not drinking enough. If it is clear, more often than not, you are hydrated.

*Note: the formula I have given above is a general guideline to follow. Research has show that one can even *overhydrate* by drinking too much water. This happens reasonably often in endurance events, where competitors sometime take this regular drinking advice too literally and end up collapsing because they drank TOO MUCH water, which constitutes a stress on the body (for example, changes in brain chemistry, lung congestion and muscle weakness). This condition is known as water intoxication or hyponatremia. (I would like to thank John Paul Catanzaro of Body Essence for bringing this condition to my attention). Basically, the recommendation is to drink water as you lose it!

VITAMINS/MINERALS

What Are They And What Do They Do For You?

In a nutshell, vitamins and minerals are classified as essential nutrients. They are not made by the body, and thus, must be supplied through diet or supplementation. Although they are needed in only minute quantities by the body in comparison to protein and carbohydrates, they are responsible for a number of biological functions ranging from muscle growth, good health, hormone and endocrine function, fat metabolism and as catalysts in releasing the stored energy from food.

What Does This Mean To You?

It means that a deficiency in any vitamin or mineral can cause many problems to arise such as: suppression of the immune system, muscle weakness, and bone deterioration (osteoporosis) just to name a few.

What Should You Take And How Much Of It?

There are many schools of thought on this. Some suggest that you should not take any vitamins and/or minerals because you can get everything you need from the foods that you eat if you follow a well balanced diet. Others recommend taking Mega-doses of certain supplements because it is difficult to always eat well

I recommend that you take a Multi-vitamin/mineral every day to ensure you get the bare minimum of the Recommended Daily Allowance (RDA) requirements. If you are unsure, do not hesitate to consult with your family physician. He/she can let you know if you are deficient and if so, what to do about it.

Get Your Vitamin/Minerals From Food

It is also preferable to get your vitamins/minerals from the foods you eat. Instead of relying on pills, try to consume foods that are abundant in the nutrients that you are looking for. For example, if I am not getting enough Beta-Carotene in my diet, I will simply eat more carrots because they are high in this mineral. For more detailed information on this topic, get yourself a good book on nutrition such as Nancy Clark's "Sports Nutrition Guidebook."

Week 2: Homework

Water and Vitamins/Minerals:

For this week, all you have to do is drink more water as recommended by the formula and take a good Multi-vitamin/mineral pill daily.

NUTRITION

Different Approaches To Nutrition:

The area of nutrition is complex; there are many opposing ideas on what constitutes good nutrition. Vegans say that you should not consume any meat or dairy product whatsoever. You basically eat fruit, vegetables, grains, legumes, nuts and seeds. Then you have different forms of vegetarians where, depending on the approach, you can also consume eggs and/or milk depending on whether you are an ovo- or lacto-vegetarian respectively. Ovo refers to eggs; lacto refers to milk products. Therefore a lacto/ovo-vegetarian consumes milk products, eggs and plant sources. Other non-vegetarians state that you should eat a well-balanced diet from a variety of sources.

Clean Up Your Diet

To start, I suggest that you try to clean up your diet as much as possible. This means that you should try to cut down on soft drinks, snack foods, and processed foods such as flour and sugar. Also, minimise caffeine and alcohol from you diet and eliminate cigarettes completely. By doing this, you will make great improvements in your health and fitness levels.

Handling Cravings

The next time that you get a craving for something that does not fit into your daily meal plan, consider this. Look at the Energy Expenditure Chart (see Appendix 4) and determine what eating that food will cost you in terms of energy expenditure for the day to balance your caloric intake.

Portion Sizes:

Now that you have cleaned up your diet, the next step is to figure out how much to eat. Many individuals are not aware of the size of the portion (serving size) that they should consume. For example, a plate of pasta that is served at my local restaurant is not 1 serving; in reality it is equal to over 3 servings! The same goes for the meat that is served as a main dish. For most people, a 12 oz. Steak is the equivalent of 4 servings of meat for the day. Listed below are the Four Food Groups that we have heard about so often over the years with suggested serving sizes.

Fruit and Vegetable Group

One Serving Equals:	1/4 cantaloupe
	1/4-cup dried fruit
	1/2-cup juice
	1/2-cup vegetable, fruit
	1/2 grapefruit
	1 medium apple, banana, orange

Grain Group

One Serving Equals:	1/2-cup pasta, rice, cooked cereal
	1/2 flour tortilla
	1/2 English muffin
	1 oz. Ready-to-eat-cereal
	1 slice bread
	1 1/2 corn tortillas

Milk Group

One Serving Equals:	1/2-cup ice cream
	1/2-cup cottage cheese
	1-cup milk
	1-cup yoghurt
	1 oz. Cheese

Meat Group

One Serving Equals:	1/4 cup nuts, seed
	1/2-cup peas, beans
	1 egg
	2 TBS peanut butter
	2-3 oz. lean meat, fish poultry
	(About the size of a deck of cards)

I am not going to discuss the number of servings that you should consume from each food group. Since my nutrition recommendations are based on "The Zone"; the number of servings from each food group would be different from the standard approach.

My recommendations came about by studying the theories by some of the leading researchers in nutrition: Drs. Eric Serrano and Mauro DiPasquale to name a few. They have found that we should rethink the famous Four Food Group diet plan that is taken to be the Holy Gospel by some. Unfortunately, our society is getting fatter and more obese following these recommendations. Therefore, something is wrong and I encourage you to keep an open mind regarding the different theories on nutrition. Without knowing more about your specific needs I suggest using "The Zone" diet as a good starting point in your eating habits. You can then experiment with your caloric intake and Macronutrients percentages (specifically your Carbohydrate intake) to find out what is best for you. Everybody has a different Carbohydrate setpoint. The Carbohydrate setpoint is where you feel and look you best. If your Carb intake is too low then you will feel fatigued quite often. If it is too high then you will tend to store more body fat. A great book on helping you determine *your* Carbohydrate setpoint is "The Metabolic Diet" by Mauro DiPasquale.

<u>Reading Nutrition Labels</u>

The next area that I wish to focus upon is food labels. Be very careful when reading food labels. They can be misleading at times if you do not know what to look for. For example, it is possible for a food to be 100% FAT yet be labelled as FAT-FREE! How is this so?

Take an item such as PAM vegetable oil. This food is 100% fat. Some food manufacturers play around with the serving size so that their product appears to be something that it is not. According to American nutrition expert, Keith Klein, a food that has less than 1 gram of fat in it per serving can be labelled as fat-free. By shrinking the serving size to a minuscule amount, the product can be labelled in this manner. This is how some, not all, food manufacturers mislead the public.

Another item to look at is the use of the word “Light” on the package. Light in what respects? Are we talking about the weight of the food? Are we talking about the texture of the food? Or are we talking about the caloric portion of the food being lower than the regular version of what we are eating? Keep an eye out for this one! When you see the word “Light”, pay attention to the following: the size of the serving in grams or ounces, the number of calories in the food, the amount of Macronutrients in the food, e.g. how much protein, carbohydrate and fat the food contains, sugar content, etc.

I have seen some products use the word “Light” in their packaging. The manufacturers claimed that their light version had 33% fewer calories than their regular version. They were not lying: The “Light version did have one third fewer calories because IT WAS 33% SMALLER THAN THE ORIGINAL! They just changed the size of the serving! When looking for “Light” make sure that the serving size is constant and preferably has fewer grams of saturated fat and sugar in it when compared to the original version.

Keep in mind the following when reading food labels:
1 gram of carbohydrate = 4 kilocalories
1 gram of protein = 4 kilocalories
1 gram of fat = 9 kilocalories
1 gram of alcohol = 7 kilocalories

*Note: when looking at percentages contained in the foods compare the calories in relation to each other; not grams.

Brand 1: Equality Cracked Wheat Bread Jane Parker
Ingredients: Enriched flour, cracked wheat, glucose-fructose/sugar, yeast, vegetable oil (soy or canola oil), salt, wheat gluten, calcium propionate, sodium stearoyl-2-lactylate, monoglycerides, calcium carbonate, ammonium chloride, calcium sulphate.

May contain traces of sesame seeds, sulphites and milk ingredients.

Nutrition Information per 31 g serving (1 slice)

Energy	76 kilocal
Protein	2.5g
Fat	0.6g
Polyunsaturates	0.3
Monounsaturates	0.1g
Saturates	0.1g
Cholesterol	0mg
Carbohydrates	14g

Brand 2: Dempsters 100% Whole Wheat Bread
Ingredients: whole wheat flour, water, yeast, glucose-fructose/sugar, vegetable oil (soy or canola oil), salt, wheat gluten, monoglycerides, sodium stearyol-2-lactylate, calcium propionate.

May contain calcium carbonate, ammonium chloride and calcium sulphate.
May contain traces of milk ingredients, sesame seeds and corn flour.

Nutritional information per 64 g serving (2 slices)

Energy	139 kilocal
Protein	5.3g
Fat	1.7g
Polyunsaturates	0.7g
Monounsaturates	0.2g
Saturates	0.3g
Cholesterol	0 mg

Carbohydrates	26.4g
Sugars	1.5 g
Dietary Fibre	3.1 g
Sodium	290 mg
Potassium	140 mg

Percentage of recommended daily intake	
Thiamine	15%
Riboflavin	5%
Niacin	16%
Folacin	7%
Calcium	4%
Phosphorous	10%
Magnesium	16%
Iron	12%
Zinc	10%

*Note: When reading a list of ingredients keep in mind how they are ranked in terms of amounts. Many people don't realize this but the ingredients are listed from greatest quantity to lowest quantity. For example, if you look at Brand 1: Equality Cracked Wheat, you will see that the ingredient with the highest ranking is Enriched Flour. If this is the case then why is the bread named Cracked Wheat? Shouldn't it be referred to as "Enriched Flour"? I have actually seen labels that are much worse than this. They call it "Cracked Wheat" but this ingredient was the fifth or sixth item on the list. Keep your eyes open. This is your health we are talking about!

Also, you want to look out for hidden sugars such as maltodextrin and glycerol. See Appendix 5 for a more detailed list of these sweeteners.

<u>Week 3: Homework</u>

Nutrition

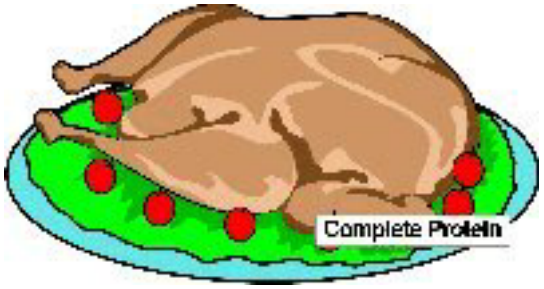
This week, I would like you to eliminate all processed and junk food, cigarettes and alcohol from your life.

PROTEIN

What is it? - What does it do?

The topic of protein is a controversial one. There are many schools of thought on how much protein you should consume. Before I give you my ideas on how much should be eaten, I will define what protein is and what it does.

Protein is one of the three basic foodstuffs that is essential for building new tissue, repairing broken down tissue and also responsible for muscle growth. There are two different types of protein: complete and incomplete.

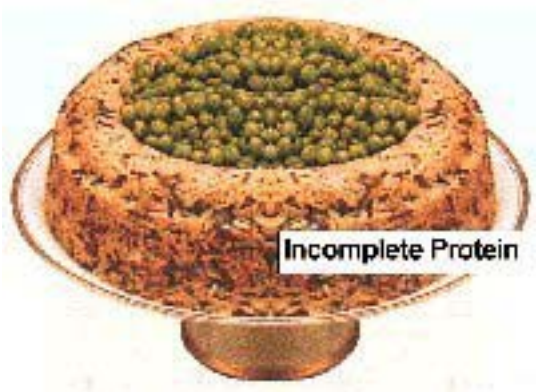


Complete Proteins

Complete proteins are proteins that have all the essential amino acids needed by the body in the correct ratio to enhance muscle growth and repair tissues. Essential amino acids are needed by, but cannot be made in, the body. You have to get them from outside sources such as protein.

Incomplete Proteins

Incomplete proteins are proteins that contain some, but not all, of the essential amino acids to build protein. For example, vegetarians combine certain foods to ensure that they are consuming a complete protein. This can be difficult because incomplete proteins are lacking in one or more essential amino acid(s). Also, you may not always get the rations right when combining the foods. If you decide to follow a vegan approach: that is, consuming only plant sources, it would be helpful to speak to your physician about the concept of food combining. The picture below shows how two incomplete proteins can be combined to make a complete protein. The problem with this is, "How much rice do you have to eat to balance out the peas?" When you have the right ratio, the food is considered complete. If the ratio is incorrect, it can be viewed as incomplete.



How much protein?

The next area that I would like to discuss is the quantity of protein to consume. On average, you should take in a minimum of 30% of your calories from protein. You may find this ratio rather high but I, and many others (including Dr. Sears of The Zone Diet), believe that extra protein aids in muscle building. As a matter of fact, if you engage in heavy resistance training, studies confirm that even a higher ratio of protein is warranted!

Thermogenic Response of Foods

Protein has a higher thermogenic response; that is the degree to which it raises your metabolism. This means that when you consume protein it take some calories to break down the food and utilise it for energy. The thermogenic response of foods varies from one type of food to the next. When consuming fat, your metabolism is raised by 4%; carbohydrate by 4-10%; and protein by 20-25%. This means that you can consume the same amount of calories from each type of food but in theory, you can get fatter by consuming fats as opposed to Carbs and protein.

Know Your Lean Body Mass

To determine how much protein to consume to make up 30% of your calories you must know your lean body mass. Lean Body Mass (LBM) = Total Weight - Fat Weight. This is where a personal trainer can help you in determining your body fat percentage. John is 200 lbs. at 20% body fat. 20% of 200 lbs. = 40 lbs. of fat. This means that his lean body mass is 160 lbs. (200 - 40). On average, one should consume 1 g of protein for every lb. of lean body weight. In Johns' case this works out to 160 g of protein, which equals 640 kilocals. (Remember that 1 g of protein = 4 kcal) Therefore, his calories for the day should be approximately 2133 kcal (640/30%).

Let's look at another example. Lucy weighs 150 lbs. and has a body fat% of 33%. One-third of her weight is fat and the remaining two-thirds is lean body weight. Lucy's body consists of 50 lbs. of fat and 100 lbs. of lean body weight. Lucy would require 100 g of protein giving us 400 kcal. Her caloric intake would be approximately 1200 kcals (400/33%).

Protein Sources - Variety is the Key

After determining your protein needs you must decide on where to get the protein from. Many people believe that they should only consume lean meats for their protein. You are better off however, having a wide selection of protein sources to satisfy your appetite. This is important for a number of reasons. By consuming many different types of food, you are ensuring that you are getting a variety of vitamins and minerals in your diet.

You are also minimising the chance of developing food allergies later on in life. For example, for the longest time, I could eat or drink any and all cow's milk products without any problems. Then one day my body turned on me and I constantly had colds and throat infections. I believe that overeating cheese and ice cream in my younger years caused me to develop allergies to milk products.

The idea of varying your protein sources also applies to those of you drinking protein shakes. Protein shakes are popular today and are consumed in large quantities by people searching for healthier alternatives. It is imperative that you vary the source as the same laws apply to these powders and allergies could result from overconsumption of the same brand.

The final word on this topic is eating a variety of foods is healthier in the long run.

Week 4: Homework

Protein:

Be aware of the types of protein that you are consuming. If increasing your lean muscle mass is your goal, consume more complete proteins and reduce your carbohydrates (i.e. simple sugars and starches) and fats (i.e. saturated fats) slightly to compensate for the extra calories from complete proteins.

CARBOHYDRATES

What Are Carbohydrates?:

Carbohydrates, or Carbs for short, are one of the three basic foodstuffs along with fat and protein. Examples include vegetables, fruits, grains and legumes. Your body converts these foods into sugar (glucose). Glucose is used by your brain to function and is also stored in the liver and muscle cells as glycogen

How Many Carbs?

How much Carbs. should you have in your diet? I suggest that you consume 40% of your daily caloric intake as Carbs. This is a conservative approach, which is in agreement with many nutrition authorities including Dr. Sears of the Zone Diet. Remember the example of our 200-lb. man @ 20% body fat? Well, he should be consuming approximately 853 kcals of Carbs in his diet. (40% of 2133).

Different Types of Carbs.

Does that mean that he can have any kind of carb to satisfy this requirement? NO! Before I tell you what type of carb to consume, you must know about The Glycemic Index (GI) of food. The GI is basically how quickly a food is converted into glucose in the blood stream. The lower the GI, the slower the rate of absorption.

Glycemic Index

The primary factors that determine the GI are 1) the structure of the simple sugar in the food, 2) the soluble fiber content, 3) the fat content, and 4) food combinations.

The Three Common Sugars

Without getting too complicated, there are three common sugars that comprise all edible carbohydrates and each one has a different molecular structure, which ultimately determines it's rate of entry into the blood stream. These three sugars are glucose, fructose, and galactose. Fructose is found in fruits; galactose is found in dairy products and glucose is found in grains, pasta, bread, cereals, vegetables and starches. Glucose can be released directly into the bloodstream while galactose and fructose must be first converted to glucose. See the Appendix for a partial list of the GI of some foods.

Soluble Fiber

The second factor is the amount of soluble fiber in the food. Fiber, a nondigestible carb. is not absorbed and does not affect insulin directly but it does affect it indirectly. the greater amount of soluble fiber in the diet, the slower the absorption time. When you remove the fiber from food, like many commercial juicers do, you speed up the entry of Carbs. in the system.

Fat Content

The amount of fat also affects the entry rate of Carbs. Fat acts in a similar manner to fiber in this respect; the higher the fat content of the food the slower the absorption time.

Food Combining

The final factor that I will look at is food combining. In a sense, food combining is a combination of the 2nd and 3rd factors. For example, if you plan on eating a rice cake, which has an extremely high GI, you can slow down the absorption rate by adding some fat (ie. all-natural peanut or almond butter) to it and/or eating some other food along with it that enters the bloodstream slowly. You might want to have some protein along with the rice cake as well. By adding food that has a slower absorption rate to the high GI carb. you are in a sense, changing the absorption rate of both foods.

Control Your Insulin levels

You may ask yourself why is this important? Let me explain a little further. When you consume food that enters the blood stream too fast, the pancreas reacts by producing high levels of insulin – a storage hormone! This has two effects: 1) it brings the blood sugar level down; often to a lower level than before the food was eaten and 2) it sends a message to the body to store more fat. To maintain stable blood sugar levels and avoid storing fat (as well as mood swings, hunger attacks, drowsiness, etc.), try to consume low GI Carbs throughout the day.

Exception to Low Glycemic Rule.

There is an exception to this rule. After a workout, especially an intense one, there is what is called a "Window Of Opportunity". This is a two-hour block of time immediately after the workout where your body desires fuel. In this case, you should have foods that have a high GI to refuel your muscles. At this time, there is a greater tendency for the muscles to absorb the food than for the food to be stored as fat.

A second exception is the newly discovered insulin index (II) – eg. Although dairy products have a relatively low GI, they are high on the II and therefore will elicit a high insulin response!

For more information on the newly discovered Insulin Index (II), visit http://www.teque.co.uk/veganmc/insulin.htm

Week 5: Homework

Carbohydrates:

Consume more low GI (and II) Carbs. Avoid high GI Carbs as much as possible.

FATS

FAT! With all the bad rap that fat has received over the years no wonder we detest the sight of it. Ironically, fat has many important uses in our diet depending on the type of fat consumed.

Why do we need fat?

Our bodies need a moderate amount of fat in our diet for many reasons. Fats support our internal organs and also store fat-soluble vitamins such as A ,D, E, and K. Fat is also an essential factor in maintaining healthy hair and skin. Other reasons to have fat in your diet is that it provides essential fatty acids (EFA'S), which the body cannot manufacture on it's own. EFA'S help regulate blood pressure along with many other important body functions. For example, flaxseed oil contains alpha linolenic and linoleic acids (EFA's) that are vital in cell building and muscle repair.

How Much Fat?

Depending on whom you speak to you will get different suggestions for fat intake. Do not make the mistake of not consuming any fat in your diet but be careful of the type of fat that you are eating. In fact, your diet should contain up to 30% fat! This might seem high at first glance but keep in mind that the amount of saturated (bad) fat in the diet is limited - most of the fat is unsaturated. This is important. Make sure that the majority of fat in your diet is unsaturated (or good/healthy) fat.

Two Types Of Fat

There are basically 2 kinds of fats found in foods: saturated and unsaturated.

Saturated

Saturated fats come from animal sources and tend to be solid at room temperature. Saturated fats should be avoided when possible: they tend to be stored as body fat and can raise blood cholesterol levels, which may lead to early development of coronary heart disease.

Unsaturated Fat

Unsaturated fats come from vegetable sources and are usually liquid at room temperature. Conversely, unsaturated fats are much healthier for you and replacing saturated with unsaturated fats will help lower blood cholesterol levels. Some good sources of unsaturated fats are: extra pure virgin olive oil, flaxseed oil, and safflower oil.

Before I go further I will briefly mention the differences between Mono and Poly Unsaturated Fats. Without getting too technical Monounsaturates are Unsaturated Fats with only 1 bond while Polyunsaturates are Unsaturated Fats with 2 or more bonds. When replacing your saturated fats with Omega 3's and Omega 6's keep this in mind: generally speaking, North Americans are deficient in Omega 3's so I would recommend that the majority of your unsaturated fats come from this source. See Appendix 3 for a partial list of these sources.

Beware of Hydrogenation

Keep in mind that unsaturated fats can be turned into trans fatty acids (a bad fat) by a process called hydrogenation. This is done to extend the shelf life of unsaturated fats and is usually attained by heating the fats to an extremely high temperature. An example of this is margarine. Below you will see a sample of 2 different brands of margarine.

Sample 1: Hydrogenated Vegetable Oils 80.3%
Water 16%
Salt 2%
Whey Powder 1.35%
Lecithine 0.16%
Sodium Benzoate 0.10%
Monoglycerides 0.08%

Made from 100% Vegetable Oils

Sample 2: Water 68%
Canola and Linola or Sunflower Oils 24%
Gelatin 3%
Modified Palm and Palm Kernel Oils 2%
Salt 1.5%
Rice Starch 1%
Vegetable Monoglycerides 0.4%
Potassium Sorbate 0.1%

Low in Saturated Fats – Non Hydrogenated

Nutrition Information per 10g (2 tsp) serving
Energy 25 cal
Protein 0.3g
Fat 2.6g
Polyunsaturates 1.1g
Monounsaturates 1.1g
Saturates 0.4g
Trans Fat 0g
Cholesterol 0 mg
Carbohydrates 0.1g

% of Recommended Daily Intake
Vitamin A 11%
Vitamin D 28%
Vitamin E 18%

Not recommended for freezing, frying or baking.

Compare the two labels above. Sample 1, while it is made with 100% vegetable oil, is over 80% hydrogenated vegetable oil! The manufacturers of this margarine are using a bad for the majority of their product. Avoid as much as you possibly can the products that use the following: hydrogenated or partially hydrogenated oils as well as Trans Fatty Acids. These are bad fats that do not contribute to your health.

Also, what kind of vegetable oil did they use? Some oils are not as healthy as others. A few oils to avoid are palm kernal and coconut oils.

Let's look at Sample 2. This product is mostly water at 68%. The oils that are used are healthy ones and they consist of 24% of the product. Looking further you will see that they do use Palm and Kernal Oils but they make up only a small percentage of the product (2%).

Other items to look at are: the caloric, macronutrient and micronutrient breakdown. For those of you watching how many calories you are consuming and most of us are – it's helpful to know how much we are taking in. Not only do they provide us with the calories per serving size we also see the macronutrient levels. While this product is mainly fat we see that it does have some protein and carbohydrates in it. What impresses me about this product is the attention to detail when compared to the first one. Not only do they tell you how much fat is in it they inform you how much comes from the following sources:

Polyunsaturates
Monounsaturates
Saturates
Trans Fat
Cholesterol

There is a relatively small amount of Saturates and no Trans Fat and Cholesterol.

A final area that I will look at is the micronutrient levels of certain vitamins found in the product. It is helpful to see what vitamins are contained in the product and their percentage of the recommended daily intake (RDI).

Overall, not only is Sample 2 a much better product for you the manufacturers have done a fantastic job on their label claims. It would be nice to see all companies taking this approach in the near future so we, as consumers, are better informed about what we are putting into our bodies.

Week 6: Homework

Fats; Reduce the amount of saturated fat in your diet and consume more unsaturated fats instead.

FLEXIBILITY

Flexibility is an important area that, unfortunately, many people tend to neglect. The general idea is that you cannot be too flexible, regardless of your objectives. But can you?

"Flexibility is defined as your ability to flex, extend, or circumduct your body's joints through their intended full range of motion without substantial decrement in limit strength." ("Fitness: The Complete Guide", p. 288, Frederick C. Hatfield, Ph. D.). This basically means that you are capable of staying strong throughout the full range of motion - you should not get weaker at the limit of your range of motion (ROM).

Can you be too flexible for your own objective?

YES - You can! There is a point of diminishing returns with flexibility. Most people do need more flexibility but you should be able to function properly with this increased range of motion. For example, say you increased your ROM by 5 degrees but have not concentrated on increasing your strength in this area. You would have increased the probability of muscle tears and pulls.

Charles Staley states in Fitness: The Complete Guide, "There is simply no point in improving your joints' range of motion unless you are also capable of strong muscular contraction while in an extremely stretched position!". (pg # 288)

Flexibility or joint ROM differs among individuals and it lays on a continuum. You should strive to maintain a comfortable ROM for YOUR particular (fitness) needs. Most people are too tight and should concentrate on increasing their flexibility. However, some people are too loose (i.e. ballet dancers) – which could compromise joint integrity. Research has shown that there's an inverse relationship between stability and flexibility – if you are too flexible, then you are not stable and vice versa.

Stretch

Now that you know the importance of flexibility "What do you do to increase it?" Stretch! What types of stretching should one do? There are a number of different types of stretching methods: static, dynamic, PNF, isometric and fascial. I will focus on active/ballistic and static stretching. The other types of stretching are beyond the scope of this book.

Active/ballistic Stretching

There are many theories on how to perform ballistic stretches but there is one that I particularly like using called the Pendulum Method. With this method you do not attempt your full range of motion immediately – you gradually work your way up to it. For example, if you are performing the seated hamstring stretch I would not recommend straining to reach your toes on the first attempt. Rather, reach for mid-thigh, then knees, then shin until you reach your maximal stretch.

Static Stretching

Static stretching consists of slowly moving in to your extreme range of motion and upon reaching the desired tension, holding that position for 10-15 seconds. I do not advocate bouncing or "jerking" when you are in this position but it is sometimes effective to "pulse" rhythmically several times. This results in a more effective stretch.

Stretches held generally beyond 10-15 seconds will compromise blood flow due to shunting effect or hypoxia. W.r.t. static stretching, it is better to perform multiple stretches (of slightly different lines of pull) for only 10-15 secs. then to perform only one stretch for 60+ secs.

Warm Up Before Stretching

One major note regarding stretching: Never stretch a cold muscle. You could easily tear the muscle that you are trying to stretch. Before beginning any stretching routine I recommend that you do a minimum of 5-10 min. of light cardio that does not involve extreme range of motion. For example, if you are a runner I recommend that you walk briskly using an average sized stride until you are warmed up. Once the muscles are warm, then you can begin your stretches and start your run.

How do I know when to use the different types of stretching?

Now that you have an understanding of 2 of the many different kinds of stretching it's important to know when to incorporate them into your training. Generally speaking, active/ballistic stretching is done BEFORE training as it signals the body of the upcoming activities. In fact, Static stretching beforehand can actually INCREASE the likelihood of injury and DECREASE strength! Save your static stretching for your cooldown period at the end of your workout. Doing this will help you retain your flexibility and minimise the chance of injuries.

Exception to the rule: Static stretching is indicated if you have extreme tonic musculature that you want to shut off (i.e. if your upper trapezius are tonic, stretch them first to shut them off and then train lower trapezius to improve imbalance.)

CARDIORESPIRATORY TRAINING

Cardiorespiratory training is strengthening the heart and lungs by working the cardiorespiratory system. There are many ways to achieve results in this area and I'll elaborate on them shortly. It is generally recommended that you perform, after a 5-min. warm-up, from 20-40 minutes in your target zone to achieve the results from cardio work.

Target Zone

First of all, I will explain what your target zone is. It is an area that you keep your heart rate based on your current age, resting heart rate and desired results. The formula is as follows: (220-age-resting heart rate*(.6 or .8) + resting heart rate)/6. This gives you your target heart rate for a 10-second count.

For example, a 48-year-old with a resting heart rate of 72 would have a target zone of 22-26 in ten seconds.
((220-48-72)*.6+72)/6 = 22
((220-48-72)*.8+72)/6 =26

If you do not currently use a heart rate monitor you can take your heart rate manually. There are two places you can do this: 1) the wrist (radial artery) and 2) the neck (carotid artery).

The wrist – place your two first fingers at the base of the thumb inside the wrist. Press lightly, moving the fingers until feeling a steady pulse. After finding the pulse count the number of beats you get in a ten second count. Multiply that number by six and you have your beats per minute (b.p.m.).

The neck – place your two first fingers on either side of the Adams apple in the groove on the front of the muscle running down the neck. Press the fingers lightly along this groove until you feel a steady pulse. After finding the pulse count the number of beats you get in a ten second count. Multiply that number by six and you have your beats per minute (b.p.m.).

*A word of caution – if you have been inactive for a period of time I suggest using the Borg Scale to gauge your intensity during your Cardio sessions. The Borg Scale is a scale from 1-10 where 1 is how you feel at complete rest and 10 is how you feel upon full exertion. You want to be at a 4-5 based on these extremes. Another name for the Borg Scale is the Ratings of Perceived Exertion (RPE).

General Thoughts

Some thoughts regarding cardio training. It was commonly believed that training at a lower intensity would burn a higher percentage of calories; training at a higher intensity would burn a higher percentage of calories from glycogen (glycogen is how your body stores energy in the body). Therefore, it was better to train at a lower intensity to use up your stores instead of your glycogen stores.

The Benefits Of High Intensity

In general, this is true but there is something else that you should keep in mind; when you train at a higher intensity you are using a greater percentage of glycogen but also you're burning more fat in the process due to the fact that you are using more total calories. Allow me to explain further. When exercising at a moderate intensity e.g. running a 5.6 min/km you are burning 18.3 kcal/min. By doing the exercise more intensely e.g. running a 3.8 min/km you are burning 22.5 kcal/min. On paper it looks like you would burn more calories from the slower rate for running 1 km; 102.48 kcal vs. 85.5 kcal.; but keep in mind that it is not just how many calories that you are expending at the time but how many you are burning after the exercise session. Another way to look at H.I.I.T. is that you are burning a higher amount of calories in the same time period by training at a higher intensity.

In a study that appeared in the journal, Metabolism ("Impact of Exercise Intensity on Body Fatness and Skeletal Muscle." Vol. 43, No. 7, July 1994) it was shown that for a given energy expenditure of activity, fat loss was much greater when exercise intensity was high.

Research has shown that one can burn up to twice the amount of calories using H.I.I.T. in comparison to steady state training. For example, if you burned 100 calories in a session of steady state cardio you could burn up to 200 calories using H.I.I.T. in the same period. You may have heard that you burn a greater percentage of calories from fat using steady state training: Steady state burns 50% of its calories from fat while H.I.I.T. burns only 40%. This is true but you have to look at the big picture. Let's look at the figures below:

Steady state – total calories burned – 50 (50% of 100)

H.I.I.T. – total calories burned – 80 (40% of 200).

The above example shows that H.I.I.T. is a much more effective way of losing fat.

Warnings

Keep in mind that untrained or obese individuals should not attempt to adopt a high intensity-training regimen simply because it might pose a health risk. I would suggest that these people follow the standard approach to cardiorespiratory work: 20-40 minutes in their training zone.

Mix it up

Exercise extremely hard for 10 min., slow down for a few minutes to catch your breath, and then proceed to exercise at a high intensity level for another 10 minutes. This method gradually gets you used to a higher intensity level.

H.I.I.T - A Variation on a theme

An approach that I have been successful with is a method called H.I.I.T. - High Intensity Interval Training. This is where you exercise for 60s at a moderate pace, intensely for 30s, moderately for 30s, intensely for 30s, and so on until you have met your desired training time for that session.

*Note: when performing H.I.I.T. keep the following in mind. You should alternate between an RPE of 4-5 (low end) and 7-8 (high end). As you become better conditioned you can experiment with slightly higher RPE's.

Some general notes regarding H.I.I.T.; you should start and end with 60s of moderate intensity and alternate sessions of moderate and high intensity every 30s during the workout. Also, you want to increase the duration of your sessions as often as possible. It has been recommended that you added 60s to every other workout. (This would be 30s of moderate intensity and 30s of high intensity).

*Note: It is imperative to properly warm-up and cool-down with this type of protocol (3-5 mins each). The cooldown is crucial particularly if you feel nauseated since it will allow for a gradual reduction in pH by circulating the lactate and diminishing the pooling effect of blood to legs, which could cause light-headedness and dizziness.

When To Do Your Cardio Routine?

Do I do it before or after resistance training? To answer this question it depends on your goals.

If strength gains are your main focus; spend 5-10 minutes performing warm-up cardio, exercise using resistance training, then perform your main cardio training.
If cardio training is more important than strength training; reverse the order of resistance training and main cardio training.

If you wish to improve on both of these, realise that it's difficult but not impossible to do both at the same time. Keep in mind that one area is a building phase and the other area is a maintenance phase. For example, you could choose to build on your current cardio condition; this is area "A". Do this first in your routine, after a warm-up, while you are still fresh and have more energy. You would perform cardio 3-6 times per week and gradually increase the time, intensity or both during this phase. Resistance training, area "B", is performed 1-2 times per week on a maintenance level after the cardio training.

When you have reached the level of cardio conditioning that you wished to attain or you have started to plateau (have not made improvements in 2-3 workouts), then it is time to reverse the order of the training. Resistance is now "A" and cardio is now "B". You can continue switching back and forth in this manner until you have reached your goals.

Week 7: Homework

Flexibility and Cardiorespiratory training:

Introduce these 2 components into your daily routine. A 20 min. walk (or any activity that gets your heart rate up) followed by 10 min. of stretching on a daily basis will give you more energy and make you feel better. The guidelines that I also recommend are 3 sets of 20-30 seconds off stretching for each body part. Also, when doing your cardiorespiratory training have a RPE of 4-5. Don't worry if your heart rate is not in your training zone. I just want you to get used to being more active. After this week more on to the section on Resistance Training. The Cardio section will be revisited in Week 10.

WHAT IS RESISTANCE TRAINING?

Before getting into the details of weightlifting, it is important to know the following terms:

Repetition - is raising and lowering the weight one time. For example, if you did 10 repetitions you would have raised and lowered the weight consecutively for 10 times without resting. The short form for repetitions is reps.

Set - is a group of reps. 2 sets of 10 reps. would consist of one set of 10 repetitions, resting for a period of time and then performing a second set of 10 reps later.

1RM - refers to 1 Rep Maximum. This is the maximum amount of weight that you can use to perform only 1 repetition. Finding your true 1RM can be difficult and time consuming. Often when you choose a weight that you can lift only one time, chances are that you can lift a heavier weight if you rested for 3-5 minutes.

To find your 1RM, perform 2-3 warm-up sets of no more than 5 repetitions with a lightweight and rest 1-2 minutes between sets. Rest 2 minutes after your final warm-up set. Add weight and perform several repetitions if you can. It is preferable to stop at 2-3 reps to save strength for the heavier sets that will follow. Rest for approximately 3 minutes and add more weight. Perform 2-3 more reps if possible. Repeat the steps of resting 3 minutes, adding weight and performing the reps until you cannot lift the weight at all.

When you have found a weight that you cannot lift at all then you have a rough idea of what your 1RM is. For example, if you can lift 100 lbs. in an exercise but fail at 105 lbs., your 1RM is somewhere around the 100-lb. mark. It may be a little higher but we know that it is not 105 lbs.; 100 lbs. is a good place to start.

Importance of knowing your 1RM

It is important to know your 1RM for several reasons. 1) Many people are interested in increasing their strength. By knowing what your current 1RM is you can compare your strength levels from one training cycle to the next. If you strength levels have not changed, or even worse, you have gotten weaker, you then know that there is a problem with your current program (e.g. over-training).

Another reason to know your 1RM is the fact that many programs suggest rep ranges to work with. Instead of guessing how much weight to use for a particular rep range it is helpful to refer to a book such as “Get Buffed” by Ian King. In it, Mr. King has a chart showing rep ranges, their training effect and their percentage of your 1RM. The percentages may not be dead-on for you but I found them rather accurate within a few pounds; thus saving you the time of experimenting with various loads.

Use A Spotter!

A Spotter is someone that helps you perform the reps safely. A good spotter will help you push yourself to the limits while ensuring that you are not injuring yourself. I recommend using a Spotter whenever you can to ensure proper form. This is especially important when you are using weights that are close to your 1RM!

What are your goals?

Before you embark on a resistance program, you must consider your goals.

A) Do you want to get stronger but remain the same size and weight (Weight Lifting)?

B) Do you want to get as big as possible (Bodybuilding)?

C) Do you want to increase your muscular endurance (Endurance)?

OR

D) Do you want a combination of some of the above?

Once you have decided on your goals, you must find out how to achieve them. I will give you the basics on each type of training.

Weightlifting

To get stronger but remain the same size, you must use a heavier weight at low reps. This breaks down to using from 85-100% of your 1RM for 1-5 reps and generally a higher number of sets (5-12). You also want to rest for a longer period of time (3-5 min.).

Bodybuilding

To get the maximum size and muscle gain, it is recommended that you use a weight that is from 70-85% of your 1RM for 5-12 reps, rest 2-4 min. between sets, and perform 3-6 sets.

Endurance

To achieve greater muscular endurance, it is recommended that you use 60-70% of your 1RM or 12-20 reps, rest<2 min. between sets for 2-4 sets.

Tempo Training

You can also be more discriminating about the tempo of the exercise; this is how fast you raise, lower and hold the weight, but this is a more advanced form of training. For example, you may lift the weight at a slow, moderate, fast or explosive rate – each one will have a different training effect. If you need more information on the use of Tempo Training I suggest that you purchase a copy of Ian King's "Get Buffed". This is a great book with a wealth of information in it.

Achieving Training Goals

How do you go about achieving elements of all 3 objectives? There are a couple of schools of thought on this subject. An approach that I prefer is to use a method called Periodisation. Periodisation entails improving on one aspect of your training while maintaining other parts of it. For example, if you wanted to: increase your muscular endurance, muscle mass and strength levels, I would suggest devoting approximately 4-6 weeks per phase. In addition, I recommend the following order: Phase -1 Muscular Endurance, Phase - 2 Mass, Phase - 3 Strength.

There are three reasons why I have chosen this particular order: 1) your body learns the proper way of doing movements through higher repetitions, 2) you are less likely of getting injured by using lighter weight for higher reps, 3) by moving to a Mass Phase instead of a Strength Phase you have an easier time to adapt to the change in load as you are GRADUALLY getting used to heavier weight as opposed to a sudden change.

Periodisation of Weight Training and Cardio

There may be times when you want to prioritise one form of training over another. For example, you may want to increase your strength for a particular upcoming event while keeping your cardiorespiratory (cardio) stable. To do this keep your cardio training to a bare minimum e.g. anywhere from 1-3 times per week or perhaps not even at all!

If you do too much cardio activity, your strength gains will slow down. When you have reached your strength goals you may want to build upon your previous cardio levels while maintaining your strength.

Exercise Selection

Now that you have decided on what type of resistance training to do the next step is to determine what exercises to include and exclude in your training program. Should you follow the free weight approach by using dumbbells and barbells or go strictly with weight machines at your local gym? I encourage the use of free weights and here's why.

We live in a 3 dimensional, unstable environment. The majority of our movements take place on a number of different planes; up-down, side to side, back and forth, and combinations of all three. Since we live in a world such as this, the question to you is "Why train using strictly machines?" when exercises on machines are generally performed in a stable environment and on only one plane. I admit that there may be certain instances where one should use machines in their training even as a source of variety from time to time, but for the most part, you're better off using free weights!

Stabiliser Muscles In Action

If you are not convinced, consider this scenario. Take a movement such as the flat bench **Dumbbell** press for the chest. Do as many repetitions as possible in strict form until you cannot do any more. (That means no bouncing or swinging.) Immediately after this exercise do the flat bench **Barbell** press using the same combined weight that you had in the previous exercise. You will notice that even though you are tired, you can still perform more reps. Without delay, perform the same movement on the flat bench **Smith** machine again with the same weight. You can complete even more reps. Why is this so? As you move from the **Dumbbell** to the **Barbell** to the **Smith** machine you are using fewer and fewer stabiliser muscles. Stabiliser muscles are smaller muscles that help reduce the risk of injury in well-balanced bodies. Untrained individuals tend to have weak stabiliser muscles in comparison to the prime mover muscles whereas properly trained individuals are strong throughout the body. This phenomenon is even more pronounced if you take it one step further and perform a **Machine** Chest Press. Therefore, you want to use free weights to better strengthen your stabiliser muscles.

Compound vs. Isolation Movements

Now that you understand the benefits of using free weight exercises in your program the next question is "What exercises should you perform?" Basically there are two types of exercises that you should be aware of: compound and isolation.

Compound Movements

Compound movements are Multi-joint movements consisting of two or more joints moving and therefore many muscles are involved. One example is the **Dumbbell** press. In this exercise you are moving at the shoulders, elbows, and wrists. You are utilising the muscles of the chest, shoulders, triceps and a number of other muscles (i.e. synergists, stabilisers, antagonists, neutralisers, fixators) to complete the movement.

Flat Db Press (semi-sup)

- lie supine (face up) on a flat bench with the feet planted firmly on the ground
- maintain relatively neutral spinal curvatures (i.e. do not arch your back during the movement), and as always, keep your chest (bottom of sternum) up
- press 2 dumbbells upwards so that they are directly above your shoulders
- your palms should face each other throughout the movement
- lower the dumbbells laterally - in an arcing motion - while keeping your elbows in line with your shoulders (in other words, pull your elbows back as you lower the weights)
- in the bottom position, your arms will form a "W" shape
- make sure to get a good stretch at the bottom in order to achieve full ROM
- press the dumbbells up to the starting position and repeat for the desired number of repetitions
- Using a semi-supinated grip allows for a greater ROM. It is also a safer version for the shoulders as it avoids impingement.

START

FINISH

Isolation Movements

Isolation exercises, on the other hand, involve only one joint and usually less muscles are recruited to perform the movement. An example of this is the Dumbbell fly. There is movement in the shoulder area alone and the main muscle being used (or the prime mover) is the chest muscle.

- Flat Db Flyes (pronated)
- lie supine (face up) on a flat bench with the feet planted firmly on the ground
- press the small of your back against the bench and maintain constant tension in the abdominals throughout (this will ensure that full ROM is achieved by the pectorals without compensation/arching from the low back)
- press two fairly light dumbbells upwards so that they are directly above your shoulders
- your palms will be facing your feet this time
- in an arcing motion, lower the weights down and back so that they end roughly in line with your ears
- maintain just a slight bend in the elbows throughout the entire movement
- try to achieve a good stretch in the bottom position (as a matter of fact, consider this movement more of a stretch than a strengthening exercise - for that reason, it is not necessary to use heavy weights)
- concentrate on pulling the weight upwards using the chest not your arms and end the movement directly above your shoulders (no need to go further inwards as this will release tension from the working muscles)

START

FINISH

Can you guess which type of movement I prefer to use when training my clients? That's right; compound movements. Not only are you using more muscles by doing compound movements, but you are also saving time in the process. For example, you could do an isolation exercise for each angle of pull throughout the entire body but it would take all day to train. By focusing on compound movements you are saving time by performing fewer exercises that hit the majority of muscles. In essence, these exercises give you the biggest bang for your buck! The problem is that they are not easy to perform and most people shy away from them because they are, quite simply, lazy!

Don't get me wrong. I believe that isolation movements do have a place in a training routine; usually when balancing out body parts. For the most part, I keep the isolation movements to a bare minimum unless there are major muscle imbalances.

Week 8: Homework

Resistance Training:

Add 3 days of weight training to your weekly routine. Pick a weight you can handle comfortably for 15-20 reps. When in doubt, go lighter even if it means no weight at all. The intensity of the exercises should be the same e.g. one exercise should not have you feeling wiped out while another one is too easy. You are better off having all the exercises relatively easy in the beginning. Try to add one more rep per exercise per workout. When you can do more than 20 reps, increase the weight slightly (even as little as 1-2 lbs.) and strive for a minimum of 15 reps the next workout. Have one day's rest between workouts. Continue to cycle your workouts in this manner.

Perform 1 set of the 15-20 reps of the following exercises in this order: Squats (Legs), 1 Arm Bent-Over rows (Upper Back), Pushups (Chest), DB Shoulder Press (Shoulders), 1 Arm DB Triceps Extension (Triceps), DB Bicep Curls (Biceps), Standing Calf Raise (Calves), Swiss Ball Crunches (Abdominals) and Back Raise (Lower Back). The words in brackets are the names of the body parts that are being exercised. Perform all exercises in a slow, controlled manner and rest approximately 30-60 seconds between sets. Breathing should be natural for all movements The exercises are shown below:

SQUATS

Feet spaced shoulder-width apart and rotated out slightly
Bar sits across your shoulders and upper back (meaty area of your upper traps)
Grip the bar with your hands as close as possible to your shoulders
Keep your elbows forward and your chest up throughout the movement
Always look straight ahead or slightly up (never look down)
Start the squat by bending your knees first
The knees should track over the middle toes
Keep your trunk as erect/vertical as possible
Lower yourself as far as possible while maintaining good form
Strive for full range of motion where your hamstrings touch your calves


START

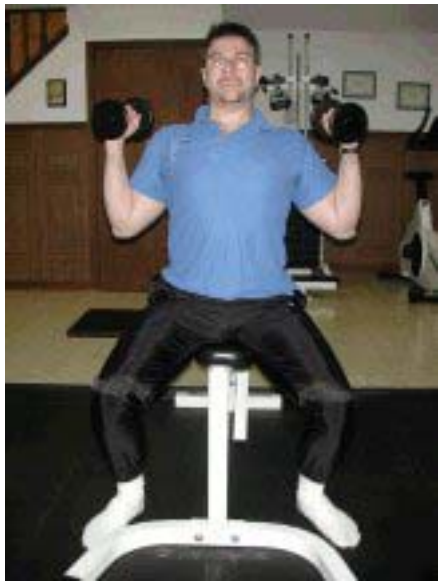

MIDPOINT


FINISH

DB SHOULDER PRESS
Seated on a bench with your feet planted firmly on the ground
Dumbbells are positioned directly beside your shoulders with your palms facing forward
Press the weight straight up without locking your elbows at the top position; be careful not to press the weight directly above your head
Keep the elbows back in line with your shoulders throughout the movement
As always, keep your chest up and try to maintain neutral spinal curvatures (do not round nor arch your back)

The "W" version promotes greater balance among the 3 deltoid heads. Furthermore, by semi-supinating the arms, greater ROM is achieved. This is a much safer version for the shoulders (as it avoids impingement.)

START

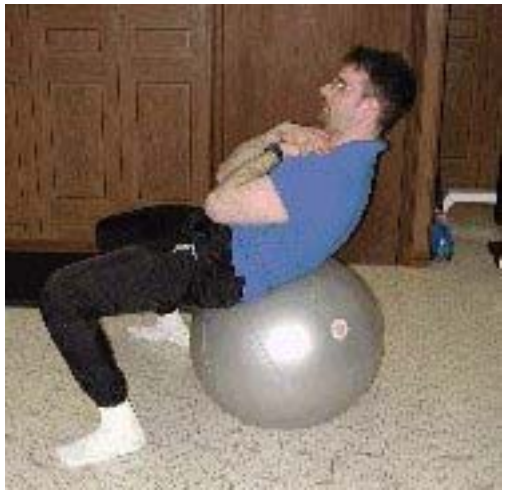


FINISH

SWISS BALL CRUNCHES
Start by laying supine over a Swiss ball
Hook your feet under a pair of hex dumbbells for support
Cross your arms over your chest
Press the tongue against the roof of your mouth (just swallow and the tongue will go where it needs to go)
Curl your body upwards – one vertebrae at a time – until your Abdominals are fully contracted
Keep the neck straight (do not swing the head upwards)
Your trunk should not reach vertical in the top position – this will ensure that constant tension is placed on the Abdominals throughout the movement
Make sure to lower yourself all the way down (round right over the ball) to achieve full range of motion

START

FINISH



While there are many good resources on the market describing how to do the exercises properly, such as Bill Pearl's "Keys to the Inner Universe" and Ian King's books and instructional videos, the best approach to take is to hire a Certified Personal Trainer. He/she will demonstrate the exercises correctly to help minimise the risk of injury.

The Resistance Training Chapter will be revisited in Week 11.

SUPPLEMENTATION

There are no quick fixes

Often, when people think of supplements, they think of quick fixes in their diet. This is NOT the approach to take! A supplement, by definition, is an addition to, not a substitute for, good nutrition. Before you consider taking supplements, clean up your diet first. If you feel that you are lacking in an area, consult your family physician to find out how you can correct this. Once your eating habits have improved, then you can consider taking supplements.

Essential Supplements

The question is "What supplement(s) should you be taking?" To answer this question, let me start with what many believe are the basics that one should take. As a bare minimum, consider taking a multivitamin/mineral supplement every day. No matter how hard you try to eat a healthy, well-balanced diet, there are going to be times in your life that you just cannot eat properly. By taking a multivitamin/mineral supplement, you are ensuring that you have the bare minimum needed to function. A further supplement that should be consumed is flaxseed oil. The benefits of flaxseed oil were reviewed in the chapter on fats.

Another supplement that many consider absolutely essential are antioxidants. Antioxidants are necessary to neutralise free radicals. Free radicals are known to cause the following: damage to muscle fibres, fatigue, inflammation, and possibly immune system suppression. Intense exercise causes a dramatic rise in free radicals with a simultaneous reduction of antioxidant systems within the body to fight them. Left unhindered, free radicals will lead to breakdown of muscle tissue and produce several other problems such as mentioned earlier.

Week 9: Homework

Supplementation:

Begin supplementing your diet with a MultiVitamin/Mineral (1 pill), Flaxseed Oil (1-2 tsp.) and Antioxidants (1 pill) per day.

CARDIORESPIRATORY TRAINING REVISITED

In this chapter we will be revising your Cardiorespiratory Training routine. By now you should have developed the habit of performing a Cardiorespiratory Training and Stretching routine consistently for three weeks. Experts say that it takes 21 days to acquire a new habit and after this point it is much easier to implement the new behaviour into your daily routine.

Week 10: Homework

Cardiorespiratory Training Revisited:

Increase the intensity of your training by 1-2 RPE e.g. if you were training at 4-5 increase it to 6-7. Be aware of your heart rate during this exercise and how it fits into your training zone.

RESISTANCE TRAINING REVISITED

As with your Cardiorespiratory Training, you have been performing Resistance Training for three weeks. It is now time to add an additional set to each exercise performed in your routine. There are a number of different ways of doing this: 1) you can do straight sets whereby you would perform one set of Squats, rest for a short period of time, then perform a second set of Squats. You would then move on to the next exercise – the 1ARM Bent-over row and do the same. OR 2) you could do a Circuit Routine. A Circuit Routine consists of performing exercises back to back with minimal rest between sets. In this case you would perform all nine exercises in a row, rest for approximately one minute then proceed to do a second circuit with the same exercises. I suggest that you use the second option for several reasons: a) by having minimal rest between sets you are keeping your heart rate up. This will give you both a Resistance Workout and a Cardiorespiratory Workout and b) you are allowing one body part to recover by training another body part. This will ensure a better balance between the muscle groups being trained.

Week 11: Homework

Resistance Training Revisited:

Add a second set to the work out and perform them in a Circuit Routine.

FITNESS ASSESSMENT REVISITED

This is the final week. During this week you will get a second Fitness Assessment done. I am asking you to do this so that you can see the great progress that you have made in your health and fitness levels during the past three months. This assessment can help you re-evaluate your program and assist you with determining your strengths and weaknesses. The best way to reveal where you need to make adjustments in your program is to take a look at your results from the first two assessments and compare it to your Training Log. Has your Cardio improved considerably while your strength levels remain unchanged? This could be due to the fact that you have missed more Resistance Training workouts in comparison to your Cardio Training. Be honest with yourself regarding your training logs and fitness assessments. Realize that no one is perfect and that everyone can learn something from these valuable tools. The important thing is to resolve to make the necessary changes to accomplish your goals.

Week 12: Homework

Fitness Assessment Revisited:

Get a second fitness assessment done and compare your results to the first assessment. Congratulate yourself on the improvements that you have made in your health and fitness levels!

CONCLUSION

Congratulations! You have made it through the 12 weeks and should have noticed a significant difference in how you look and feel! Don't stop here. Make this a part of your lifestyle. By continuing with the healthy eating and exercise plan, you will ensure greater gains down the road.

What's next for you? Do you plan on entering a competition of some sorts? Maybe you just want to compete against yourself and see how far you can go. Whatever your goal, make sure that you continue eating well and exercising so that you may enjoy a long and healthy life.

Always remember that Body Sculpting Corp. is just a phone call away. We can help take you to the next level. The reward of enjoying good health is a never-ending trip on the road of life. Let Body Sculpting Corp. be your guide to an enhanced lifestyle.

APPENDIX 1

Glycemic Index (GI) of Carbohydrates (Partial List)

Rapid Inducers of insulin (GI greater than 100%)
Corn Flakes
Puffed Rice

Glycemic Index Standard = 100%
White bread

Glycemic Index between 80 and 100%
white rice
instant mashed potatoes

Moderate Inducers of Insulin GI between 50 and 80%
Pasta
Oranges

Reduced Insulin Secretion GI between 30 and 50%
Apples
Pears

Glycemic Index 30% or less
Plums
Cherries

APPENDIX 2

Complete/Incomplete Proteins

Complete Proteins
Values per 100 g of edible portion

Food	Water (g)	Energy (Kcal)	Protein (g)	Total Lipid (Fat) (g)	Carbs (g)	Fiber (g)
Beef, ground, extra lean, cooked, baked, medium	58.64	250	24.47	16.14	0.00	0.0

Incomplete Proteins
Values per 100 g of edible portion

Food	Water (g)	Energy (Kcal)	Protein (g)	Total Lipid (Fat) (g)	Carbs (g)	Fiber (g)
Apples, raw, with skin	83.93	59	0.19	0.36	15.25	2.7

APPENDIX 3

Poly and Monounsaturated Fats
Sources of Omega 3's
Canola
Cold Water Fish and Marine animals e.g. salmon, trout, mackerel and sardines

Sources of Omega 6's
Evening Primrose Oil
Flax

APPENDIX 4

ENERGY EXPENDITURE
MET values for some common activities:

Activity	Intensity	MET
Aerobics	High Impact	7
Walking	High Intensity	6.5

Above is a chart with the MET's of some common activities. MET's, or metabolic equivalent, is basically a way of stating the rate of energy expenditure from a given activity.

To determine how many calories you burn in a particular activity use the following formula:

Energy Expenditure = Body Mass (in kg) **X** MET value **X** Duration (in hrs.)

For example, if you weigh 154 lbs. (70 kg) and performed the following activities: Intense Free-weight training (1 hr.) and Low Intensity Walking (1/2 hr.) you would have burned 420 + 87.5 = 507.5 calories

(70 X 6 X 1) + (70 X 2.5 X 0.5)

APPENDIX 5

Hidden Sugars in foods

Words ending in –ose:
Dextrose
Fructose

Words ending in –ol:
Mannitol

Other Sugars
Beet Sugar
Brown Sugar

GLOSSARY

A/

Aerobic fitness - aerobic means “with oxygen”. Activities where oxygen from the blood is required to fuel the body in events such as cycling, running and walking.

Amino Acids - the building blocks of protein. They total 24 in number and can be combined in numerous ways to produce different proteins.

Antioxidants - specific vitamins, minerals, and nutrients that protect against free radical.

B/

Basal Metabolic Rate (BMR) - the rate at which the body burns calories over a 24-hour period. This is while the body is at complete rest, awake and lying down.

Blood Pressure - a measurement of the force with which blood is pressed against the wall of a blood vessel. There are 2 aspects to consider in blood pressure: *systolic pressure* and *diastolic pressure.*
Systolic pressure is the blood pressure in the blood vessels during the contraction phase.
Diastolic pressure is the pressure in the blood vessels during the relaxation phase. A typical reading may be 120mm Hg over 80mm Hg or 120/80.

Body Fat Percentage - the percentage of fat in the body. Generally, the lower the better.

Body Mass Index (BMI) - a formula that relates a person’s weight to their height. The formulas is as follows: kg/(m*m) where kg is the individual’s weight in kg and m*m is the individual’s height in (m) squared. A healthy BMI is normally 20-25.

C/

Carbohydrates - one of the three basic foodstuffs along with fat and protein. Examples include vegetables, fruits, grains, and legumes. Your body converts these foods into sugars, which are then used as the main source of energy. There are 3 basic types of sugars in foods: *glucose, galactose,* and *fructose.*
Glucose is found primarily in grains, pasta, bread, cereals, vegetables and starches.
Galactose is found in dairy products.
Fructose is primarily found in fruits.

Cardiorespiratory - pertaining to the heart and lungs.

Cholesterol - a fatty substance found in most body tissue. It is used to produce vitamin D, hormones and bile. Dietary cholesterol, found in meat and dairy products, raises blood cholesterol but not to the same extent as saturated fats.

Circuit Training - method of weight training composed of a series of exercises for all body parts. They are performed in succession with short rest intervals between exercises and develops both anaerobic and aerobic strength.

Compound Movements - consists of movement in 2 or more joints which uses multiple muscles to raise the weight, e.g. the Dumbbell Bench Press movement for the chest, shoulders, and triceps.

Cool-down – an important post-workout routine that allows the body to return to its' pre-workout state. Activities such as static stretching, jogging and walking are recommended.

REFERENCES

Clark, N. 1997. Sports Nutrition Guidebook: Eating to Fuel Your Active Lifestyle, Champaign, IL; Human Kinetics.

Colgan, M. 1993 Optimum Sports Nutrition: Your competitive Edge, Ronkonkoma, NY: Advanced Research Press.

Covey, S. 1994 First things First, New York, NY; Fireside.

DiPasquale, M.G. 2000 The Metabolic Diet, Austin, TX: AllProTraining.com Books

Erasmus, U. 1993. Fats that Heal; Fats that Kill, Burnaby, BC: Alive Books

Hatfield, F.C. 1993. Fitness: The Complete Guide, Santa Barbara, CA: The International Sports Science Association.

King, I. 1999. Get Buffed, Toowong Qld, Australia: King Sports Publishing

Maltz, M. 1993. Psycho-Cybernetics, Englewood Cliffs, NJ: Prentice Hall

McRobert, S. 1991. Brawn, Nicosia CYPRUS: CS Publishing

Pearl, B. 1982. The Keys to the Inner Universe, Phoenix, Oregon: Bill Pearl Enterprises Inc.

Poliquin, C. 1997. The Poliquin Principles: Successful Methods for Strength and Mass Development, NAPA, CA: Dayton Writers Group.

Sears, B. and Bill Lawren, 1995. Enter The Zone, New York, NY. HarperCollins Publishers, Inc.

Tremblay, A. et al. 1994 Metabolism 43: 814-818. Impact of Exercise Intensity on Body Fatness and Skeletal Muscle Metabolism.

INDEX

FREE NEWSLETTER!

Subscribe to the Body Sculpting Newsletter so you can continue learning about cutting-edge health information and be the best that you possibly can!

The Body Sculpting Newsletter has been created to furnish you with health and fitness information from around the world. It is filled with practical advice on eating healthier, training, healthy recipes, stress reduction, Frequently Asked Questions along with information on various health modalities - all designed to take you to the next level in your physical, mental, emotional and spiritual development.

A year's subscription is FREE ONLINE - a $97 value! This is a private mailing list that will never be given away or sold for any reason.

To subscribe, email us at:
info@bodysculpting.ca
with the words "subscribe newsletter". You can unsubscribe at any time.

UPGRADE TO THE DELUXE VERSION

Benefits of upgrading to the Deluxe version.

I hope that you enjoyed reading my FREE ebook "How To Sculpt A Leaner, Healthier Body In 12 Weeks". I am sure that you have found plenty of information that will help you with your health and fitness goals. If you found this book useful I am certain that upgrading to the Deluxe version will help you further in your endeavours. There are many benefits that you will receive. Some of them are listed below:

- more information packed pages to take your training to the next level
- Pictures and descriptions of ALL the exercises demonstrating how to properly perform these movements.
- Links to some great websites that will expand on the information found in this book
- You become a Body Sculpting V.I.P. This entails advanced notification of sales before the general public finds out and V.I.P. only sales
- Food, Resistance and Cardio Logs to help you monitor your progress
- 10% discount on selected items that we carry
- a FULL Glossary and Index of the important terms in the ebook
- an expanded MET's chart to help you plan your daily activities for maximal caloric expenditure
- a percentage of the sales from the Deluxe version will go to the following charities: Children's Make A Wish Foundation, United Way Toronto and United Way of New York City (towards the Sept. 11th fund). We will donate 5% of the retail price to each of the above charities

Everything you wanted to know about sculpting a leaner, healthier body including:

- The importance of Lifestyle and Weight Management
- Defining realistic goals and achieving them
- The role of nutrition in your health and fitness endeavours
- The difference between Weight Loss and Fat Loss
- The benefits that come from exercising regularly such as: better health, more energy, increased metabolism, improved self-esteem, better muscle tone, stress reduction
- How to satisfy your vitamin/mineral needs and when to supplement
- The difference between Saturated an unsaturated Fats
- What are the Glycemic Index (GI) and newly discovered Insulin Index (II); How do they affect my energy levels
- The contrast between Complete Proteins and Incomplete Proteins
- and many more important areas!

George Stavrou has been helping individuals achieve their health and fitness goals for over a decade. He began his pursuit of physical fitness in high school. After realising the many benefits of eating well and exercising, started training family and friends.

George believes in constantly learning about different health modalities. He is currently discovering the benefits of acupuncture and deep massage and how it relates to stress reduction, improved recovery time and increased athletic performance.

George owns and operates Body Sculpting Corp., a company dedicated to helping you become the best that you can be!

BODY SCULPTING CORPORATION
181 Linden Avenue
Toronto, ON
M1K 3J1
Canada
Tel: 416-267-0856
Toll free: 1-888-669-6383
Fax: 416-267-9300
www.bodysculpting.ca

$14.95