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# STEP 3

## Commit to a Regular Exercise Program

The human body has over 600 muscles, allowing it an extraordinary range and capacity for movement. Physical exertion should be as natural to us as breathing. Yet the average North American exerts himself very little. Our activity levels have been reduced by cars, assembly lines, farm equipment, elevators, washing machines, snow blowers, and golf carts, to name only a few labour-saving and consequently movement-saving devices.

Going against our genetic programming that demands that we use our bodies in a physical way leads inevitably to disease and degeneration. The high-tech, industrialized conditions of the modern world has led to a state where for many people their bodies are simply there to carry their head from place to place. Much of a person's activity in daily life has shifted from physical activity to brain-related activity such as thinking, problem solving, goal setting, and communicating. There is no doubt that the progressive decline in physical activity over the decades has contributed to a rise in obesity, heart disease, and cancer. We have

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to find twenty-first century substitutes for those physically challenging tasks we no longer need to perform. Walking, jogging, cycling, rowing, swimming, aerobics, dancing—there are lots of possibilities. Your body demands a certain amount of physical activity every week; without it, you can look forward to a degenerative process that is not unlike starvation.

Even if your diet is ideal, your muscles will degenerate and shrink without adequate exercise. They will also become more susceptible to tears and ruptures. They will no longer adequately support your joints, especially your hips, knees, and lower back. You will be prone to osteoarthritis. Your bones will lose calcium more easily, increasing your chance of developing osteoporosis. Without adequate physical activity, you can count on progressive deterioration of your muscle and bone structure, your cardiovascular integrity, and other organ systems.

## Exercise Prevents Age-Related Muscle and Bone Loss and Cardiovascular Decline

After the age of 40 there is a significant decline in the secretion rates and blood levels of testosterone, dehydroepiandrosterone (DHEA), growth hormone, and Insulin-like Growth Factor-1 (IGF-1) in both sexes, and an additional decline in estrogen and progesterone in women entering menopause. These age-related hormonal changes allow our muscle mass to be broken down and used to produce energy. Decreased muscle mass contributes to a slower metabolism and greater gains in body fat. As we age *too* these changes *also* permit calcium to leech out of bone, increasing the risk of osteoporosis. There is a decline in cardiovascular function.

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The cells of the body become less efficient at extracting oxygen from the bloodstream, and our maximum heart rate drops. The good news is that the right combination of aerobic exercise and resistance training will prevent the loss of muscle mass and bone density and maintain cardiovascular function at a more youthful level. In fact, studies on elderly subjects have shown that aerobic exercise can improve many aspects of cardiovascular function and oxygen uptake and utilization by the cells of the body, and that a basic resistance training routine can increase muscle mass and bone density, thereby reversing the aging process. Aerobic and resistance training exercise together can allow us to attain and maintain a fit, toned, and strong body well into our twilight years.

I have been reasonably fit my whole life thanks largely to aerobics training. But at age 40 I put extra emphasis on the resistance training portion of my exercise routine—weights and strength exercises—in an effort to increase my muscle mass, tone, and definition. At this stage in life I began a regimen of one hour of moderate to heavy resistance training six days per week. I continued at least 30 minutes of aerobic exercise per day and adjusted my diet to include the additional protein I required to build more muscle. In the first two years of this program I gained up to 15 pounds of muscle and reduced my body fat by four percent. I have been able to maintain these levels for the past 10 years and have a better body now than I did in my 20's and 30's.

Like many others, I am living proof that the aging process need not leave us flabby, weak, and easily winded. Even though the hormonal changes of aging make it more challenging to achieve and maintain these results, it is absolutely within your ability to have a toned, lean body regardless of your age.

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## The Essentials of Aerobic Exercise

Participating in aerobic exercise may be the single most important proactive wellness strategy you can adopt. Regular aerobic exercise improves the health of your cardiovascular system, strengthens your heart muscle, burns body fat, elevates good HDL cholesterol, reduces high triglyceride levels, helps reduce high blood pressure, and regulates insulin. It is associated with a significant reduction in the risk of breast and colon cancer, and it increases the release of endorphins, which elevate your mood, reduce stress, and combat mild to moderate cases of depression.

Aerobic exercise is any activity that accelerates your heart rate to within what is known as the "aerobic training zone" for a minimum of 20 minutes (ideally, 30 to 60 minutes) and is practiced at least three times a week. This means that you should exercise at a level of intensity that has you breathing harder than normal but still able to carry on a conversation. Popular options include jogging, stationary cycling, rowing, long-distance swimming, cross-country skiing, working out on elliptical machines, Stair Masters, Stair Climbers, and aerobic fitness or dance classes. All of these forms of exercise offer the health benefits I've described.

Achieving your aerobic training heart-rate zone is the key. Essentially, this zone is between 60 and 85 percent of your maximum attainable heart rate. This is the rate at which your heart would beat if you were to exercise all-out, to the point of complete exhaustion. Fortunately, you don't have to reach this point. You can determine your aerobic zone by making a few simple calculations, beginning with your maximum attainable heart rate.

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- Maximum attainable heart rate = 220 minus your age
- Low end of aerobic heart-rate zone = maximum attainable heart rate x 0.6
- High end of aerobic heart-rate zone = maximum attainable heart rate x 0.85

If you are 40 years old, your maximum attainable heart rate is approximately 180 beats per minute (220 - 40). Your aerobic heart-rate zone ranges from 108 beats per minute (180 x 0.6) to 153 beats per minute (180 x 0.85). You will get the most aerobic exercise by keeping your heart rate at between 108 and 153 beats per minute for 20 to 45 minutes, at least three times a week.

Exercising at 60 percent of your maximum attainable rate is so comfortable that you can maintain a conversation without becoming winded. If you are just starting with aerobic exercise, you should aim for about 65 percent of your maximum attainable rate. If you are already in good shape, aim for at least 75 percent. You can push yourself harder by doing short sprint intervals during your aerobic workout. I'll explain interval training later in this section.

You will be amazed at how quickly your body responds to a regular aerobics program. I have seen many patients who were seriously overweight or out of shape achieve remarkable results in short periods of time. I have seen first-time joggers who took ten or eleven minutes to complete a mile improve their times to eight, seven, or even an elite-level six minutes a mile. These gains are due to an increase in the muscles' oxygen consumption and in the number of sites within the muscle that can generate energy. With more available energy, the muscles can do more work, enabling you to run faster or row harder or cycle uphill at the same heart rate at which you previously performed to a lesser degree.

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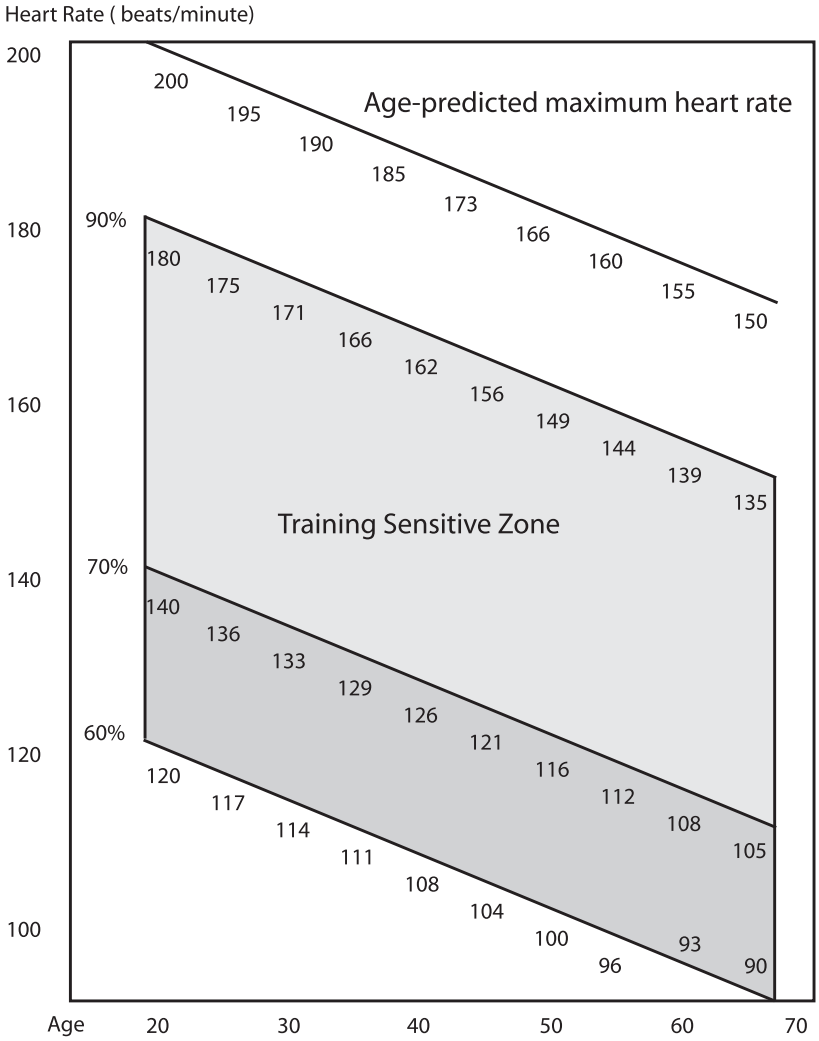
## Maximal heart rates and training sensitive zones for use in aerobic training programs for people of different ages




The zone between 60 and 70 percent of your maximum heart rate is sufficient to derive aerobic benefits and at the same time is not so demanding as to produce significant discomfort.

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Your overall aerobic exercise performance will gradually improve as a result of regular participation. You don't have to overexert yourself: your speed, endurance, and strength will increase as a natural response to the aerobic exercise itself.

Aerobic exercise improves the capacity of your body tissues to extract oxygen from red blood cells, transport it to the inside of the cells, and use it for energy production. Although your red blood cells are always saturated with more oxygen than your body requires at any given moment, the ability of the tissues to pick up this oxygen can vary greatly from one person to the next. An aerobically fit individual extracts oxygen from the bloodstream roughly 25 percent more efficiently than someone who is unfit. Light activity alone will not significantly improve the utilization of oxygen in your body. You must maintain an increased heart rate for at least 20 minutes three times a week to make these positive changes. In just six to eight weeks, the average person can increase his or her oxygen consumption by 10 to 15 percent through aerobic exercise.

The benefits of improved oxygen utilization are considerable: you will have more energy; your tissues will become more efficient at using the oxygen available, so your heart will be under less stress; your heart will become stronger and able to pump more blood with every beat. Thus, it can beat more slowly and still provide adequate blood to your body. On average, an aerobically fit person actually has a slower resting heart rate (48 to 66 beats per minute) than an aerobically unfit person (72 to 99 beats per minute).

A slower resting heart beat is a tremendous advantage in itself. Between beats, your heart can deliver blood to its own coronary vessels and supply itself with more oxygen. To appreciate the importance of these aerobic adaptations, keep in mind that a heart attack occurs when your heart muscle cannot get the oxygen it needs. The better your heart is equipped to deliver oxygen to its own muscles, the better off you are. But that's not all. Studies show

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that aerobically fit exercisers have higher levels of HDL cholesterol, the "good" cholesterol that helps prevent the arteries from narrowing and may even reverse the narrowing process.

Furthermore, aerobic exercise lowers psychological stress by balancing and regulating hormones that promote high blood pressure. In periods of stress, the amount of adrenaline hormone in your system increases. During aerobic exercise, your body releases adrenaline slowly and regularly; after exercising, your level of adrenaline returns to the ideal baseline.

Many highly stressed people have discovered that aerobic exercise helps them unwind. It's a great way to clear the cobwebs from your head and put the anxieties of the day into perspective. In fact, aerobic exercise can take you into an altered state of consciousness that triggers positive thoughts. It is well documented that exercise helps prevent recurring depression and at the same time induces runner's high, the heightened mood that usually kicks in after 20 to 30 minutes of an aerobic workout session. Research indicates that this state is created by the release of pleasure-giving brain chemicals know as endorphins.

Finally, exercise affects your appetite and food choices. Most people find it easier to make wise food choices after an exercise routine. The appetite center seems to prefer healthier, lighter foods. And losing a few extra pounds through aerobic exercise can also help lower your blood pressure and reduce your risk of cardiovascular disease.

You can be trim and slender but still unfit from an aerobic point of view. Conversely, you can be in great aerobic shape even if you are overweight. No matter how much you weigh, you can achieve great benefits to your heart, cardiovascular system, and muscle tissues from aerobic exercise. Being aerobically fit actually helps minimize some of the risks of being overweight, so don't wait to lose weight before you begin an aerobic exercise program.

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Spot-reducing exercises such as sit-ups and leg lifts will tone the muscles under the fat, but they will not eliminate fat itself. Only aerobic exercise can stimulate the release of fat from your fat cells. Here's how it works. Let's say you get on a stationary bicycle and begin peddling. As your heart beat speeds up, your nervous system releases adrenaline. Adrenaline triggers the breakdown of fat in fat cells everywhere in your body, not in the muscles you are exercising. Individual fat molecules escape from your fat cells and enter the bloodstream, where they circulate through your body. The exercising muscles, including the heart and respiratory muscles, pick up the circulating fat molecules and burn them to generate energy. The longer you peddle the more fat is released and burned.

When you stop exercising your tissues will very quickly stop releasing fat molecules into your bloodstream. However, your muscles will continue to pick up and burn the fat already there. Several factors affect how long you burn fat after exercise. Most significantly, the longer the exercise session, the more fat will be released from your fat cells and therefore the more fat is burned after exercise. Ideally, you should build up to sessions of between 30 and 60 minutes' duration. A 30 to 60 minute session also markedly depletes the carbohydrate stores in your muscles and liver. Your body will be so busy rebuilding these stores that most of your tissue cells will continue to burn fat as their primary fuel for many hours after the workout is over.

## The Essentials of Resistance Training

With a routine of aerobic exercise established, I recommend that you add resistance training—strength and weight training—to your fitness program. Resistance training will give you muscle tone and definition, improve body shaping and strength, and raise your

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metabolic rate, enabling your body to burn more fat calories while you are at rest. Resistance training also helps you gain bone mass, which prevents osteoporosis. And like aerobic exercise, resistance training greatly depletes the carbohydrate stores in the muscles exercised. When the exercise session is over for the day, your tissue cells will primarily burn fat, as your body shunts the carbohydrate calories you consume to your muscles so they can reload their carbohydrate fuel tank in preparation for your next work out. Finally, resistance training, performed properly, improves your posture and helps prevent sprains, strains, and injuries to your muscle and joint systems.

Resistance training is best performed with free weights or resistance training machines. If you are unfamiliar with this equipment or the names of the exercises, seek some basic instruction from a fitness professional or personal trainer at a gym. These strength training exercises are easy to learn and the equipment is safe for almost everyone.

If you are just beginning an aerobic exercise program and have been unfit for some time, you may not be ready to embrace resistance training right away. However, when you become more experienced and fit, I suggest you adopt one of the programs described later in this chapter or ask a fitness instructor at a local health club to design a routine that is customized for your needs.

In recent years weight training or resistance training has become increasingly popular with athletes in every sport and fitness-conscious individuals of all ages. Gone are the days when the weight room was the exclusive domain of Olympic weight lifters, body builders, and muscle heads. Today, many recreational athletes and fitness enthusiasts recognize the performance-enhancing, body-shaping and even medicinal value of weight training.

Successful resistance training begins with identifying your goal. If you want a body builder's physique, then follow a program that maximizes muscle growth and density. If you're trying to improve

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the power of your tennis stroke, your slap shot, your bat speed in baseball, your golf swing, your skating power or your speed and acceleration for soccer or sprinting, then using a body builder's weight training routine may actually slow you down and worsen your performance. You might get bigger, but you'll probably be slower. The explanation lies in an understanding of muscle mechanics.

One of the body's fundamental adaptations to weight training is an increase in muscle fiber size, a condition known as hypertrophy. The number of muscle fibers in the muscle doesn't increase. Rather, the muscle fibers simply lay down more protein myofilaments (actin and myosin protein) in their outer layers. A muscle like your biceps, for instance, is made up of thousands of individual muscle fibers, each about the diameter of a human hair. As you train these muscles through resistance training, they respond by enlarging, laying down an increased number of myofilaments inside each trained muscle fiber, thus increasing their cross-sectional area and their density. As the cross-sectional area of the muscle increases, its maximum force or strength increases, and the muscle begins to look more toned, better defined. These adaptations hold true for both men and women.

However, muscle fiber hypertrophy does not occur uniformly among all the fibers in the exercised muscle. In every muscle, there are Slow Twitch (Type I) and Fast Twitch (Type II) muscle fibers. Slow Twitch fibers are aerobic in nature, designed for high oxygen consumption, and are recruited primarily for long distance or endurance-based activities. Fast Twitch fibers are needed for explosive bursts of energy (golf swings, tennis strokes, sprinting, etc.). Some people are genetically endowed with a greater number of Fast Twitch fibers than others and have a natural ability to run fast or hit a golf ball a country mile with little or no formal training. The resistance training programs that I will outline produce hypertrophy primarily in Fast Twitch fibers, rather than in Slow Twitch fibers.

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Body builders focus on both Type I and Type II muscle fiber hypertrophy. As a rule, Type I muscle fibers resist increasing in size. This is why long distance runners do not look muscular, even though their Type I muscle fibers are extremely fit and well trained. Body builders have discovered that they can force Type I muscle fiber to grow by including high-volume, low-resistance training in their workout programs. This enables them to gain the bulky muscles that we associate with body builders.

For the rest of us, a resistance training program will be based on a series of weight-bearing exercises performed with six or seven pieces of weight training equipment. Each exercise is performed with a specific weight and for a specific number of sets and repetitions within a set. To improve muscle definition, body sculpting, strength and power, choose a weight that you can lift eight to 10 times. Then perform three to five sets of eight to 10 repetitions each with this weight. It should be heavy enough that you are unable to do more than 10 repetitions in a set. Rest for a minute or two between sets. While performing the exercise, contract the muscle quickly when working against the resistance, then lower the weight in a slow, controlled manner. Rapid contraction against the weight helps improve muscle power, increases your speed and acceleration, and recruits a greater number of total muscle fibers into the effort. Lowering slowly will reduce the strain on joint structures.

Once you can lift the weight 10 times in each of the four or five sets at that exercise station, make the weight heavier on your next visit to the gym. Continue to increase the weight as your muscles become stronger, always working towards 10 repetitions in each set. This is known as the overload principle of resistance training, a technique that enables your muscle strength gains, body sculpting, and definition to continue improving over time.

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To maximize your weight training results, follow these tips:

- Perform at least two or three different exercises for each body part. For the chest, as an example, use the bench press, incline press, and flies;
- Perform three to five sets at each exercise station.
- Work each body part at least twice a week allowing 48 to 72 hours for recovery between sessions;
- To achieve greater strength gains, use heavier weights that permit you to perform only four to seven repetitions per set, before reaching muscular failure;
- For power training to enhance sports performance, body sculpting and general anti-aging purposes, use moderate weights and eight to 10 repetitions per set to muscular failure;
- Remember that to gain muscle mass you must ingest at least 0.5 grams of protein for every pound you weigh (or about 1.2 grams of protein for every kilogram you weigh). Some athletes ingest up to 2.2 grams of protein per kg. As an example, if you weigh 80 kilograms, you should consider ingesting 100 to 150 grams of protein each day to build your muscles depending on the intensity, duration, and frequency of your workouts.

## For Those Who Hate to Exercise

Does the very thought of aerobic exercise exhaust you? Do you regard resistance training as not only painful but painfully boring? I have met many individuals who feel this way. Despite the phenomenal growth of the wellness movement in the past twenty-five years, many people are still reluctant to undertake even a moderate exercise regimen.

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Perhaps you are among them, although you acknowledge the health risks of a couch potato lifestyle. My advice is start small: you can attain some of the benefits of regular exercise through a program of relatively light activity, such as walking. Several studies have shown that burning 2000 calories per week with easy physical activity increases longevity. This expenditure, achieved by walking alone, has been shown by researchers to lower the risk of coronary heart disease by as much as 39 percent, even in overweight smokers with high blood pressure. We're not talking about sweat and exertion here: most people can burn 2000 calories during a walk of 45 to 60 minutes (three to four miles, or five to 6.5 km) four to six times a week.

Other research has demonstrated that light regular physical activity is linked to the prevention of colon cancer and decreases in breast cancer, the latter thanks to its influence on estrogen levels. During a woman's teenage years, excess body fat can establish a pattern of estrogen secretion that may hasten the onset of cancers in the reproductive tissues later in life. When fat cells increase in size because of overeating and lack of exercise, they can become over-stimulated and increase the production of potentially harmful forms of estrogen. Dr. Rose Frisch, a researcher at the Harvard School of Public Health, Center for Population Studies, studied the prevalence (lifetime occurrence) rates of reproductive organ cancers in women based upon data collected from 5,398 living alumnae, 2,622 of whom were former college athletes and 2,776 nonathletes. Participants (former alumnae) were mailed a detailed questionnaire dealing with their health history from 1981–82 up until 1996–97—a 15-year follow up period. She found that women who have exercised over their lifetimes have a dramatically lower rate of reproductive organ cancers than women with histories of little exercise.

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Any way you look at it, the message is clear. Physical activity need not be excessively demanding for it to be of some value in the prevention of heart disease and cancer. However, more formalized aerobic exercise provides greater total benefits—anti-aging, disease prevention, fitness, and body shaping and toning. The chances are that once you start, you'll want those too.

## Choosing the Right Program

I will offer you five different exercise programs to choose from, according to your present fitness level, health status, health history, wellness and anti-aging goals, and time constraints:

1. The Power Walk Program—a light activity program for people who hate to exercise;
2. The Basic Aerobic Program—an aerobic program to ensure that you derive all the benefits available from aerobic exercise;
3. The Aerobic Plus Basic 6 Resistance Training Program—the basic aerobic program plus a starter program of resistance training, which provides the six most important resistance exercises for the upper and lower body;
4. Aerobic Plus Intermediate Resistance Training Program—the basic aerobic program plus an intermediate program of resistance training;
5. Aerobic Plus Advanced Split Routine Resistance Training Program—the basic aerobic program with a more advanced program of resistance training for even better results in body shaping, muscle tone, definition, and strength.

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## 1—The Power Walk Program

By burning as few as 2000 calories per week, you can improve your wellbeing whether you want to lose weight or not. How can you burn off 2000 calories? Here is a helpful formula: by walking one kilometre, you burn as many calories as you weigh in kilograms. If you weigh 70 kg, you will burn roughly 70 calories by walking a kilometre. Let's say you walk five kilometres (three miles) a day, six times a week: 70 calories x 5 km x 6 times per week = 2100 calories. That is enough physical activity to significantly decrease your risks of heart disease and certain cancers.

If you wish, you can jog some of those kilometers instead of walking them. The main difference between walking and jogging is your time to the finish line. Jogging will provide some additional aerobic benefits, but walking should not be underrated as a method of exercise. You'll burn the same number of calories as you do jogging and you can do it almost anywhere with no need for fancy equipment. Keep up a brisk steady pace—you're not out for a stroll, you're out for a power walk.

Wear a proper pair of shoes, preferably jogging shoes with good support. Choose different routes to keep your walks interesting. Listen to your favorite music to help maintain your pace or to an audiobook to make double use of your time. You can plan a party, compose a letter, or rehearse a presentation while you walk. To burn even more calories, carry one-pound hand weights or wrist weights. By swinging your arms energetically as you walk, you will further increase your heart rate, making the power walk more of an aerobic workout. Jazz dancing and ballroom dancing are good supplements to the power walk program. One hour of dancing is roughly equivalent to a three-mile walk.

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Eventually, you will probably find the power walk is not enough of a challenge. This means you're getting into shape. Try alternating walking and jogging. Jog until you feel tired, then walk until you recover. Don't be surprised when one day you find yourself able to jog the entire distance.

## 2—The Basic Aerobic Program

Any activity that keeps your heart beating within your aerobic training heart-rate zone is good aerobic exercise, whether it's jogging, cycling, rowing, or just running up and down the stairs. Fitness classes can be an effective form of aerobic exercise as well, as long as they maintain your heart rate within the aerobic heart-rate zone for more than 20 minutes. Classes such as cardio-pump and body sculpting can also improve muscle-toning, strength and flexibility and serve as great overall conditioners. Nonetheless, I suggest that you complement these classes with some additional aerobic and strength training work on your own.

If you have not exercised for a long time, consult your doctor before embarking on an ambitious aerobic program. Begin with 20-minute exercise sessions and gradually work up to 45 to 60 minutes. A 45 to 60 minute session maximizes the amount of fat you will continue to burn after exercising.

To derive the major aerobic benefits of jogging, you should cover at least 15 miles (24 km) per week. If you jog more than 25 miles (40 km) per week, however, you may put yourself at risk for the development of shin splints, ankle problems, or knee problems. Measure other forms of aerobic exercise, such as swimming or working out on stationary bikes, rowing machines, cross-country machines, treadmills, mini-trampolines, and stair climbers, by the

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length of time you spend on them, not by the "distance" you cover. What matters is the length of time that your heart rate stays within your aerobic training heart-rate zone. If you are training three days a week, these days should not be consecutive. You need to train every second day to sustain the training effect. Don't push yourself to exhaustion. Make exercise something you enjoy.

## *Add Interval Training to Your Aerobic Workout to Enhance Power and Fat Burning*

Once you become more aerobically fit, you can add interval training to your aerobic work out if it serves your goals. Interval training enables you to become better conditioned for many endurance and stop-and-go sports and to burn more fat and calories during and after your aerobic workout session. Let's take a look at interval training and whether it suits your needs.

The key to success in many sports is the ability to repeatedly attain high speed and sustain it for extended periods of time. This is especially true of sports played over large surfaces—hockey rinks, basketball courts, football or soccer fields, singles tennis courts, or middle distance track and field events. We've all seen a ball carrier in football slow down within 10 or 15 yards of the goal posts after a 70 or 80 yard breakaway run. He has dodged and sprinted his way through the opposition, but then begins to fatigue. A better-conditioned defending player catches up and makes the tackle, ending his hopes of a touchdown.

With some minor adjustments to your aerobic training routine you can stimulate your muscles to improve your speed endurance. Even if you're not the fastest athlete on the field, being able to sustain your maximum speed for the necessary length of time will often give you an edge over the naturally faster athlete who lacks speed endurance capacity.

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On the two or three days a week that you do your aerobic workout incorporate a few minutes of interval training. Instead of jogging or cycling or using a Stair Master at a constant pace within your aerobic heart rate zone, set aside 10 to 15 minutes of your usual training period to include short interval sprints, followed by a less demanding recovery interval. The sprint phase of high intensity work should closely match the peak demands of your sport and the recovery phase should likewise mimic the recovery interval of your sport. Here are a few approximate sprint to recovery intervals for various sports:

- Football: 20 to 30 seconds sprint phase followed by 60 seconds of recovery within your low to moderate aerobic range.
- Basketball: 20 to 30 seconds sprint followed by 60 seconds of recovery within your low to moderate aerobic range.
- Baseball: 40 seconds sprint followed by 90 seconds of recovery within your low to moderate aerobic range.
- Soccer: 30 seconds sprint followed by 60 seconds of recovery within your low to moderate aerobic range.
- Hockey and ringette: 30 seconds sprint followed by 60 to 90 seconds of recovery within your low to moderate aerobic range.
- Lacrosse: 30 seconds sprint followed by 60 seconds of recovery within your low to moderate aerobic range.

Keep in mind that the sprint interval requires all-out or near all-out effort. During the recovery interval, keep moving, but reduce your speed or the resistance of the machine so you can prepare for the next sprint interval. When beginning to train this way, perform only six to eight sprints during your aerobic session. As you become better conditioned you can increase the number of sprint intervals to eight to 15 per session.

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Interval training takes your aerobic fitness capacity to a whole new level, which translates into better performance and a more fit-looking, fat-burning body.

## 3—The Aerobic Plus Basic 6 Resistance Training Program

This program comprises your usual aerobic exercise program and a resistance training program that works all of the major muscle groups in the body with only six exercises, three for the upper body and three for the lower. It is a great program if you have not done resistance training before.

| Exercise | Sets | Repetitions | | |
|---|---|---|---|---|
| | | First set | Second set | Third set |
| Bench or Chest Press | 3 | 8-10 | 8 | 8 |
| Lat Pull Downs | 3 | 8-10 | 8 | 8 |
| Overhead Press | 3 | 8-10 | 8 | 8 |
| Hip Extension (or Squats) | 3 | 8-10 | 8 | 8 |
| Knee Extension | 3 | 8-10 | 8 | 8 |
| Hamstring Curl | 3 | 8-10 | 8 | 8 |

Your goal is to perform this strength training program three or four times per week, which will accelerate your strength gains, your muscle tone, and your body shaping. Allow at least 48 hours between training sessions. It's during the recovery days that your muscles rebuild themselves with a greater number of fibers.

Strength training is now an integral part of life for most fitness and wellness-conscious individuals. If you are serious about achieving a healthy, fit, toned body, then I encourage you to adopt this beginner-level strengthening program. You will be amazed at how quickly your strength, performance, and muscle tone improve.

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## 4—The Aerobic Plus Intermediate Resistance Training Program

This program comprises your usual aerobic training program plus three or four sessions a week of a nine-exercise resistance training regimen.

| Exercise | Sets | Repetitions | | |
|---|---|---|---|---|
| | | First set | Second set | Third set |
| Bench Press | 3 | 8-10 | 8-10 | 8-10 |
| Incline Press | 3 | 8-10 | 8-10 | 8-10 |
| Lateral Pull Downs | 3 | 8-10 | 8-10 | 8-10 |
| Seated Rowing | 3 | 8-10 | 8-10 | 8-10 |
| Squats | 3 | 8-10 | 8-10 | 8-10 |
| Knee Extension | 3 | 8-10 | 8-10 | 8-10 |
| Hamstring Curl | 3 | 8-10 | 8-10 | 8-10 |
| Bicep Curl | 3 | 8-10 | 8-10 | 8-10 |
| Tricep Extension | 3 | 8-10 | 8-10 | 8-10 |

## 5—The Aerobic Plus Advanced Split Routine Resistance Training Program

This program combines your usual aerobic exercise routine with a more advanced resistance training program.

Follow the Day 1 routine, then Day 2. On the third day, take a day off from weight training to allow full recovery. On the fourth day, return to the Day 1 routine. This gives you a rest every third day from your weight training program.

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**Day 1 - Chest, Back and Biceps**

| Exercise | Sets | Repetitions | | |
|---|---|---|---|---|
| | | First set | Second set | Third set |
| Bench Press | 3 | 6-8 | 6-8 | 6-8 |
| Incline Press | 3 | 6-8 | 6-8 | 6-8 |
| Flies | 3 | 6-8 | 6-8 | 6-8 |
| Lateral Pul Downs | 3 | 6-8 | 6-8 | 6-8 |
| Seated Rowing | 3 | 6-8 | 6-8 | 6-8 |
| Bicep Curls | 3 | 6-8 | 6-8 | 6-8 |

**Day 2 - Legs, Shoulders and Triceps**

| Exercise | Sets | Repetitions | | |
|---|---|---|---|---|
| | | First set | Second set | Third set |
| Squats | 3 | 6-8 | 6-8 | 6-8 |
| Knee Extension | 3 | 6-8 | 6-8 | 6-8 |
| Hamstring Curl | 3 | 6-8 | 6-8 | 6-8 |
| Military Press | 3 | 6-8 | 6-8 | 6-8 |
| Lateral Raises | 3 | 6-8 | 6-8 | 6-8 |
| Upright Rowing | 3 | 6-8 | 6-8 | 6-8 |
| Tricep Extensions | 3 | 6-8 | 6-8 | 6-8 |

There are many variations of this training method and you may wish to consult a personal trainer for more individualized or sports-specific programs.

## Other Resistance Training Exercises That Work

In my experience there are alternative programs to traditional weight training that also enhance muscle strength, definition, tone and body shape. Specific exercises using the Thera-Ball can be very

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useful and are easily performed in your own home. Have a trainer devise a personalized routine for you using this piece of equipment. Other effective programs to investigate include:

- Yoga – especially Ashtanga, Bikram, and power yoga
- Body sculpting and body-pump fitness classes
- Martial arts training
- Pilates
- Boxercise

If you are involved in these alternate forms of resistance training, I recommend supplementing them with Program 3: The Basic 6 Resistance Training Program, at least twice per week.

## Long-Term Compliance

Still see exercise as an unpleasant and uncomfortable chore? If so, you need to learn how to make it fun. Exercising should give you the same feeling of revitalization as dancing. I recommended taped music for power walking, but it's appropriate to any form of aerobic exercise. Listening to favourite songs will make continuous movement feel natural and an upbeat tempo can spur you to greater heights.

At the outset of an exercise program, you will probably have to take firm charge of your body. Deprived of regular physical activity, it will be weak, tired, and addicted to the foods and behaviors that have kept you out of shape. Listening to your body at this point won't do you any good. It will dictate terms that favour the status quo. As Newton so aptly stated, "A body at rest stays at rest." You must, therefore, commit to a fitness goal and know how you can accomplish it, beginning with fitting exercise into your schedule. What works best for you? A morning walk? An evening jog? Perhaps a workout at lunchtime? Make your exercise times convenient, so that you will be more inclined to stick to them.

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If your body remains reluctant, then it's up to your mind to force it into action. Exercise even when you don't feel like it. In a matter of minutes both your body and mind will feel better. I guarantee it. Improved psychological wellbeing is one of the major benefits of exercise. Take advantage of the runner's high, that pleasurable sensation that arises during your aerobic workout. View your exercise time as wellness time—time to clear your head, move your body, and recharge your battery. Physical activity can literally change your mood. Learn to anticipate the positive feelings of wellbeing that come from exercising. Don't let glum days, hectic days, or boring days get you down. Exercise is an excellent way to leave those self-destructive emotions behind and get on with the happy, positive life you deserve.

Remember it's not about pushing yourself to exhaustion. A patient who came to me overweight and out of shape now runs marathons several times a year. When he jogs, he concentrates on the idea of conserving his energy. He never pushes himself to the point of pain or exhaustion because he knows that he will have a negative reaction, physically and psychologically. "I want to wake up tomorrow and look forward to my exercise session. I don't want to dread it," he says. If you push yourself too hard, it makes sense that you would be tired and resentful about exercising the next time. And your psychological outlook and day-to-day energy have everything to do with staying on track.

How do you know you won't enjoy a regular exercise program if you don't try it? Give yourself a chance to experience the physical and mental benefits. I predict that exercise will become a positive and permanent feature in your life and that you will come to rely on it as an essential source of rejuvenation.

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## Starting Right Now...

1. Decide to stick with an exercise program for at least eight consecutive weeks.
2. Choose the exercise program that is right for you: Program 1, 2, 3, 4, or 5.
3. Visit your doctor before starting. Find out whether she or he recommends a stress test, electrocardiogram, or other exam before you begin an exercise regimen.

*For access to the references to Step 3 and additional education on wellness please visit the author's web site at* ***www.meschinohealth.com***