



# Excercise with Pure-Health

*Core Strength and how to get it*

## How to Exercise Efficiently and Effectively

“I’m frustrated! I have been going to the gym for 2 hours three times per week and I still haven’t seen the results I desire. I am ready to give up, exercise doesn’t work for me.”

This is a very common complaint. Many people are finally committed to getting fit, yet after 6 months of trying they don’t see the results they had hoped for. Is it possible that some people aren’t exercising correctly?

Yes and no. Any exercise is better than no exercise. However, if you have certain fitness goals you would like to attain there are some techniques that will make it easier.

**The best way to lose weight and keep it off is to increase your metabolism.**

Most people think that the best way to lose weight is to do as much cardiovascular training as possible. While cardiovascular training will help burn calories, it does not provide a long-term metabolic boost. Increasing the amount of muscle in your body is the most effective way to lose those unwanted pounds for good. Here’s why:

- It is estimated that just one pound of muscle will burn an extra 35-50 calories per day, at rest! That means that it is burning these extra calories while you are relaxing, at work and even sleeping!
- An extra 10 pounds of muscle will therefore burn approximately 350-500 extra calories per day, or over 3500 per week.
- In order to lose one pound of fat you must burn an extra 3500 calories.
- This means that if you increase the amount of muscle mass in your body by 10 pounds, you will lose a pound of fat every 7 to 10 days, without making any other changes!

Let’s compare two 150 pound people. Although they weigh exactly the same, person B has 10 extra pounds of muscle mass than person A. That means that person B can eat an extra 350-500 calories per day without gaining any weight! If they eat exactly the same thing every day person A will gain

weight significantly faster than person B.

Cardiovascular training should not be forgotten. It is very important for the health of our heart and can be effective in promoting weight loss.

Many people engage in what is called “steady state” cardio. This means that they choose to do one type of cardio machine at one particular level or speed for approximately 30-60 minutes. After a few weeks of doing this, it becomes easier. Unfortunately, the more efficient we become at a particular activity, the fewer calories we burn.

This means that when you first began level 3 on the elliptical machine you burned more calories in 30 minutes than you do now that you are in better shape. I know what you are thinking “that is not fair! The more fit I get the fewer calories I burn? Do I have to keep increasing my time on the exercise machine in order to burn the same amount of calories? No, there are ways around it and one of the best is interval training.

Interval Training is defined as short, high-intensity exercise periods alternated with periods of lower intensity exercise. These higher and lower intensity periods are repeated several times to form a complete workout  
For example:

- Step 1: Warm-up 5 minutes
- Step 2: Walk 5 minutes at 3.5 MPH
- Step 3: Walk 1 minute at 4.2 MPH
- Step 4: Repeat steps 2 and 3 four to five times
- Step 5: Cool down 5 minutes

A greater amount of calories can be burned over a shorter period of cardiovascular exercise because interval training does not allow your body to become overly efficient at one particular level. You are now burning more calories in a shorter period of time, allowing time for muscle building as well.

We all want to see results as we work towards our exercise goals. Effective, time-saving techniques provide you with a motivating exercise program that can be continued over a lifetime.

## Exercise – Stay Healthy

2

### Yoga or Pilates-What's Right For Me?

When people discuss the physical benefits of exercise, they tend to focus on the three S's: strength, stamina and slimming. With this in mind, their training program usually consists of weight lifting to build muscle, with some form of aerobic activity to build cardiovascular endurance and burn calories. There is a second tier of benefits we're beginning to value. These benefits include flexibility, coordination, posture and stress relief.

It is not that these secondary benefits weren't always important – it's just that they're more in the forefront these days due to the growing popularity of so-called 'softer' training modalities. Two of the most popular of these types of exercise are yoga and Pilates.

Yoga, of course, has been popular in North America for many decades. Pilates, however, is a newer trend whose benefits are expressed by many celebrities. Many people would like to try one of these gentler forms of exercise but are confused as to which would better meet their needs. The correct choice for you depends on your goals. Simply put, the difference between yoga and Pilates reflects the difference between Eastern and Western cultures. Both systems build strength and flexibility; the difference between them is not only physical, but also philosophical.

Let's take yoga first. Yoga is based on the Eastern idea of moving energy through your body. The more freely the energy flows, the more energetic and centered you feel. Physical tension hinders this flow and may result in areas becoming tight, more rigid, and even painful. The physical goal of yoga is to keep the body supple and strong through controlled strengthening and stretching. There is a far more powerful dimension to yoga that is often overlooked. Yoga began as a spiritual discipline with its roots in Eastern forms of meditation. The physical postures do condition the body but, combined with proper breathing, are aimed at calming the mind. Yoga participants learn to stay calm and control their breathing while holding challenging physical postures. When these principles of yoga are incorporated into your lifestyle, they lead to an overall awareness of your body and a tool to achieve inner and outer balance.

Pilates, on the other hand, is physical conditioning first and foremost – and there's nothing quite like it. Its creator, Joseph Pilates, created this type of exercise as a way to rehabilitate

injured soldiers after World War I. Pilates can be done on specific Pilates exercise equipment or as a series of mat exercises.

Pilates' uniqueness lies in the fact that all movements originate from the commonly overlooked 'core muscles' that lie deep in the abdomen and surround the spine. A beginner Pilates class often focuses on isolating these muscles in order to engage them effectively.

Pilates is a highly effective way to improve body awareness, posture and promote graceful, fluid motion. Machine-based Pilates actually has more in common with weight training than with yoga as it involves moving against resistance, provided by springs. However, pilates focuses on strengthening without the constant shortening of muscles that occurs with most weight lifting sessions. This results in the development of long, lean muscles without added bulk.

Generally speaking, although both yoga and pilates provide many benefits, yoga's focus is about how it makes you feel, with the added benefit of stretching and strengthening muscles. Pilates' main goal is to tone muscles effectively, affecting the way you look, carry yourself and move. If you are looking for a limbering, rejuvenating workout that will provide as much of a lift for your brain as your body, I'd recommend yoga. If you're interested in a more dynamic system of muscle conditioning, and want to improve your core strength, Pilates may be the answer.

In fact, it doesn't have to be an either-or choice. After all, no single training system can give your body all the types of conditioning it requires. That is why experts suggest a variety of activities, from Pilates to hiking, biking, yoga and more. My best recommendation is to try everything. Experience it all and see what works best for you. East or West, the important thing is to explore!

### Strong to the Core

When most people think about their 'core muscles' they picture the superficial larger muscles they can see, or their 'six pack'. Having a strong core is much more than having great looking abs. The core muscles lie below the superficial abdominal muscles, deep within the torso. They attach to the spine, pelvis and shoulder blades. They are often forgotten because we can't see them but these muscles create a solid foundation of support for the body.

## Exercise – Stay Healthy

3

Ordinary abdominal exercises such as ‘crunches’ and ‘leg lifts’ focus on the superficial abdominal muscles and do not teach the body to coordinate different muscle groups during activity. Core exercises enable many muscles to work together, building ‘functional strength’. This type of strength is used during daily activity whether you are digging a hole or just lifting the laundry basket

Core strength is also essential for maximum results during sports. A strong core not only creates a strong center around which the extremities can move but also optimizes the transfer of energy to your arm and leg muscles. Athletes know that this type of inner strength is the key ingredient to running faster, hitting a golf ball harder or throwing a baseball farther.

One of the most important core muscles is the transversus abdominis muscle, which lies deep in abdomen, approximately 2 inches below your navel. This muscle is also known as the ‘corset muscle’ because when it is toned it provides stability for the lower spine and pelvis. Training this muscle properly not only decreases the likelihood of a lower back injury, it is also the key to creating a narrowed waist, and a more toned lower abdomen. How is that for motivation?

Other important core muscles enable you to slide your shoulder blades down your back, towards your waist. This motion moves your shoulders away from your ears, improving posture in the upper back and neck area. Exercises to improve the strength of these muscles are especially important for people who carry stress in their neck and upper back or are starting to develop rounded shoulders.

### How do I strengthen my core?

1. Begin by teaching your brain to ‘find’ and engage the core muscles. Most people do not actively engage these muscles in daily life and need to practice contracting them properly.

In order to locate your transversus abdominis muscle lie on your back with your legs slightly bent. Picture pulling the area 2 inches below your navel in towards your lower spine. Imagine that you are trying to push your lower spine onto the floor while picturing your waist narrowing. Hold for a count of 3 and repeat 3-5 times. Be sure that your buttock and neck muscles are relaxed and do not hold your breath.

Practice sliding your shoulder blades down towards your lower back. While you are sitting or standing, picture the muscles that attach onto the lower part of your shoulder

blades (your latissimus dorsi) contracting in order to pull your shoulders away from your ears and lengthen your neck. Hold 3 seconds and repeat 3-5 times.

2. Repetition is the key. The more often you tell your brain to engage these muscles, the easier it will be to access them when you need them. Repeat the above exercises at least twice per day.

3. Once you have mastered contracting these muscles properly begin to engage them during exercise and every day activity. For example: Whether you are doing standing bicep curls at the gym or pulling weeds in your garden utilizing your core muscles will improve your technique by keeping your body stable and ensuring your shoulders don’t ride up.

4. You can further develop your core strength through targeted exercises such as pilates, yoga or stability ball exercises.

It is more important to do core exercises well than it is to do many of them. If you are unsure whether you are doing these exercises properly, schedule a session with a qualified pilates instructor or a therapist. Don’t worry, you don’t have to give up on your washboard abs, you will develop added core strength to go along with them.

### Free Weights or Machines?

Congratulations, you have taken the first step and joined a gym. You have decided that muscle building is going to be an important part of your workouts but you are confused as to whether you should work on the weight machines or give the free weights a try. You have heard that each builds muscle differently but are unsure as to which is better for you. It is true, both free weights and machines have many benefits. Which of them is right for you depends on your goals.

### The benefits of machines:

- Machines help decrease the chance of injury. If you are new at strength training machines will compensate for your lack of experience. You will learn how to perform exercises correctly with the appropriate range of motion.
- Machines help people learn which motions are required to work specific muscle groups. Machines isolate specific muscle groups and often have pictures and explanations on

## Exercise – Stay Healthy

4

them.

- Machines can speed up your workout. Changing the pin on a machine is easier than changing the plates on a barbell. (Some machines also require you to move the seat to the appropriate height.)
- Machines can easily be done alone, they do not require a spotter.
- Machines are much easier to master and are often less intimidating. Careful instruction and training is necessary to master the art of free weight lifting.

### The benefits of free weights:

- Free weights allow you to use many muscles at once. Coordinating many muscle groups improves posture and balance. For example: When working your biceps with a machine, the machine will help you isolate the biceps muscle but it will also support your body and your arm while you perform the exercise. If your biceps are done standing with free weights you are required to use many accessory muscles. Your abdominal muscles and spinal muscles help support you so that you are stable while performing the exercise, your triceps are required to keep your arm stable etc.
- Free weights develops functional strength, the type of strength that is utilized in everyday life. This is because everyday motions such as taking out the garbage or doing the laundry require the coordination of many muscle groups.
- Research has shown us that free weights promote quicker strength gains because they recruit more muscle groups than machines.
- Free weights are considerably less expensive than most of the machines on the market and can easily be done at home or when travelling. You can perform a complete strength training routine with a few dumbbells, and a little imagination.

Novice exercisers, the elderly and people with injuries are often most comfortable using machines. If you have been exercising for a while and would like to accelerate your

strength gains, begin some training with free weights.

Strength training is an important part of any exercise routine but there is no need to choose between free weights and machines, ideal training program can incorporate both. Choose the type of strength training that suits your needs and is safe and convenient. What is the best type of strength training for you? The one you enjoy doing!

### Get Results with cross Training

You are proud of yourself because this summer you stuck with your running program. By the end of the summer you were easily running 5km three times per week. You are ready for your winter fitness program and you decide to take up skiing. "This will be no problem", you think, "I'm in great shape." After a day on the slopes, however, you feel like you've been run over by Santa and all his reindeer. What's going on?

You are probably in great shape- for running. However, if you focus solely on one activity, your overall level of fitness may not be as high as you think. You may, in fact, be setting yourself up for injuries, overuse syndromes, or worse still - boredom and exercise drop out. What to do? Cross train.

The term cross training refers to a routine that involves several different forms of exercise. While it is quite necessary for an athlete to train specifically for their sport if they want to excel, for most sports enthusiasts, cross training is an effective way to maintain a high level of overall fitness. For example, you may use both biking and swimming each week to improve your overall aerobic capacity, build overall muscle strength and reduce the chance of an overuse injury. By using different muscle groups to perform different activities, you not only gain more balanced muscle strength, you also limit the amount of repetitive stress on any specific group of muscles.

Cross training allows you to vary the stress placed on specific muscles and your cardiovascular system. After months of the same movements your body becomes extremely efficient performing those movements. The muscles used to perform your exercise of choice become very strong, the movement becomes much more fluid, and requires less effort. Rather than continuing to improve, you simply maintain a certain level of fitness. Cross training is a great way to condition different muscle groups, develop a new set of skills, and reduce boredom that creeps in after months of the same exercise routines. Additionally, cross training is extremely

## Exercise – Stay Healthy

5

helpful at reducing the risk of injury from repetitive strain or overuse of a specific muscle group.

### Benefits of Cross Training

- Reduces exercise boredom
- Allows you to be flexible about your training needs and plans. For example, if it is raining outside, you could go swim at the local indoor pool instead of going for a run.
- Conditions the entire body, not just specific muscle groups
- Reduces the risk of overuse and injury
- While some muscles work, others rest and recover
- You can continue to train in some capacity while injured
- Improves your skill, agility and balance

### What exercises should make up a good cross training routine?

#### Cardiovascular Exercise

- Running or walking
- Swimming
- Cycling
- Rowing
- Stair Climbing
- Skating (inline or ice)
- Skiing
- Squash/ tennis / other sports

#### Strength Training

- Free weights
- Machines
- Pilates

#### Flexibility

- Stretching
- Yoga

Choosing a minimum of one activity from each category creates the most complete exercise regime. You can vary activities from day to day or incorporate more than one per session. Instead of devoting an entire workout to one particular exercise, blend in several exercises during the session. For example: Devote 15 minutes to the treadmill, another 15 on the exercise bike, indulge in light weight training for another 15 minutes and then do a series of stretches to cool down. That's cross-training. The possibilities, the combinations, are endless

It is true that the best way to improve your running skills is to

run and the best way to improve your swimming strokes is to swim. However, if you are looking to improve your overall fitness level, have the ability to move easily from activity to activity and remain injury free, cross training is for you. You should hurry though, I hear your friend is looking for a tennis partner.

### Top 2 Exercise Tips to Avoid the Middle Age Spread

I was out shopping and heard two women talking about jeans. "I want to buy some tighter jeans", one woman told her friend. "I am over 40 and it is only a matter of time until middle age spread sets in so I might as well buy them now." It made me wonder: "Am I destined to gain weight as I age? Should I run out and buy some tight jeans now?"

The short answer is "no". Although we tend to reduce exercise and thus gain weight with age, it is NOT inevitable. Changes in our diet can certainly lead to weight gain but lack of exercise and muscle conditioning play a huge part. Incorporate the two exercise techniques below and you will be well on your way to preventing the spread.

#### 1. Include strength training

We have all heard that muscle burns more calories than fat but most of us don't realize that this is one of the main reasons that we gain weight as we age. If we do not exercise, as we get older we lose muscle mass and our metabolic rate goes down. Physically inactive people lose approximately half of a percent of lean muscle mass every year between age 25 and 60, and experience a corresponding decline in muscle strength. From age 60 on, the rate of loss doubles, to about 1%. As this muscle mass is lost, our metabolism is severely affected, and the extra pounds begin to creep on.

If you compare two 140lb women who are the same weight but one of them has a higher percentage of muscle in her body, the more muscular woman will burn more calories, even at rest. Just one pound of extra muscle burns an extra 30-50 calories per day! Therefore, if both women eat exactly the same amount of calories, the one with the lower percentage of muscle in her body will gain more weight.

What is the bottom line? If you do not incorporate strength training in your workouts, the amount of muscle in your body, and therefore your metabolism will decrease over time. However, studies show that after only 2 months of regular

## Exercise – Stay Healthy

# 6

strength training women recover a decade and men recover two decades of muscle loss, not a bad return on your time.

### 2. Try intervals

Interval training is a cardiovascular workout that changes the intensity of exercise at various time frames or intervals, typically alternating an intense bout with an easier recovery bout. Many active people do what is called *steady state* cardiovascular training. With steady state exercise, the participant stays at one intensity level for the entire duration of the workout. For example: 30 minutes on the elliptical machine at level 5 is considered a steady state workout.

Interval training helps exercise participants accelerate weight loss for a few reasons. It not only makes your workouts more interesting, it helps avoid weight gain by increasing the number of calories burned during exercise. As an added benefit, research shows that your metabolic rate will be higher for several hours following interval training as compared to steady state cardiovascular exercise.

You can add intervals to any workout by alternating lower intensity intervals, (also known as recovery periods) with higher intensity work intervals. The length and intensity of each period can be tailored to meet your individual needs and training goals. For example: 1 to 2 minutes of higher intensity intervals, alternated with 2 to 5 minutes of lower intensity intervals. The intensity of the intervals can be altered by modifying your speed or incline during your cardiovascular exercise.

Combined with a healthy diet, the above two exercise techniques are sure to keep you at a healthy weight for life. Yes, buy some yourself some of those tight jeans, you'll be able to wear them for a long time.

### Choosing the right running shoes

With so many different types and styles of running shoes today, it can be very confusing knowing which one to choose. First, consult a health professional who is knowledgeable in determining your specific foot type and biomechanics.

People with low arches, or who roll in when they walk are called pronators. Pronators require a shoe that provides some degree of stability.

A shoe with good cushioning is important for people with high arches, or who roll out, called supinators.

To determine the shape of your shoe look at the sole. The shape of the sole of your shoe is also referred to as the "last" of your shoe. Here are some tips to determine if you are buying the right shoe for your foot:

- Look at the sole of your shoe.
- Draw a straight line along the sole of your shoe from the middle of the heel to the top of the shoe.
- If the line passes through the outer half of the toe area, this is a curved last shoe, perfect for supinators.
- If the line passes through the middle toe, this is considered a straight last shoe, and adds extra stability, perfect for pronators.

Most of the cushioning and stability of the running shoe is determined by the midsole. A dual-density midsole provides shock absorption as well as some stability, perfect for pronators. Single density midsoles offer good cushioning but are not great at providing stability making them better for supinators.

Most importantly, your shoes must be COMFORTABLE-go for a short walk or jog inside the store to test them out! Lastly, to prevent injury, don't forget to replace your runners every 400 to 600 miles OR 6 months, whichever comes first.

Vol IV-13 ó September 19, 2005

### Health Quiz

"A man's health can be judged by which he takes two at a time....pills or stairs." Joan Welsh

Take the following quiz and determine your "Diet and Exercise IQ" :

True or False:

1. A pound of muscle burns 75-100 calories per day simply by being.
2. After age 30, if you do not exercise you will lose 1-2 lbs of muscle every year.
3. If you train hard enough, you can turn your muscle into fat.
4. Stomach crunches will help strengthen your core muscles.
5. Any excess protein that is eaten is stored in the muscles.

## Exercise – Stay Healthy

# 7

6. Never eat carrots because they are high on the glycemic index and will make you fat.
7. The reason that most people don't stick to a weight loss or exercise regime is that they don't have the willpower that other people do.
8. The more time you spend exercising, the better results you will get.
9. Oranges and orange juice have the same amount of fiber.
10. Women who are trying to lose weight should be cautious when beginning resistance training to ensure that they don't build up bulky muscles and end up looking bigger.
11. 35% of the calories in 2% milk come from fat. 66% of this fat is saturated.
12. The best way to increase your metabolism over the long term is to do aerobic exercise.
13. Sports drinks can help you exercise more safely and effectively.
14. One cup of cooked pasta has the same number of carbohydrates as 12 cups of broccoli.
15. Tums is an excellent source of calcium that is easy for your body to absorb.
16. Cancer cells use glucose (sugar) as fuel. Many North Americans consume 295 pounds of sugar per year.
17. A 150 pound person burns approximately 422 calories on the stairmaster in one hour. That is not even enough to burn off one quarterpounder with cheese, which is 500 calories (over half of them come from fat).
18. What used to be called Adult Onset Diabetes has been renamed Type 2 Diabetes because it is occurring in younger people, even children. This type of Diabetes is created strictly by unhealthy diet and exercise habits. It can lead to many complications such as heart disease and blindness.

Answers: 1.T 2.T 3.F 4.F 5.F 6.F 7.F 8.F 9.F 10.F 11.T 12.F 13.F 14.T 15.F 16.T 17.T 18.T

### Will drinking 'sports drinks' help me with my workouts?

The two main ingredients that sports drinks contain that are beneficial for exercise are: sodium, that will help you retain water, and sugar, which the body uses for energy.

Few people exercise hard enough to sweat away much sodium or use up their sugar reserves. For example, you'd have to jog for two hours before your sugar reserves would begin to run low. These drinks are not health food for children. Besides sodium and sugar many of them also contain food dye. (There is no healthy food that is neon blue.) Unless you are a

marathon runner or intense exerciser, water is probably all you need. (It is also calorie free!)

### Exercise Myths

#### Myth #1:

Strenuous exercise is far more beneficial to my health than moderate exercise.

Strenuous exercise will improve athletic performance more than light exercise but does not have a great health advantage. Death rates from coronary heart disease and cancer (the two leading causes of death) are much lower in moderate exercisers than non-exercisers. They are only slightly lower in heavy exercisers than moderate exercisers.

Non strenuous exercise seems to reduce blood pressure and stress levels as effectively as strenuous exercise.

#### Myth #2

When you stop exercising muscles turn to fat

Muscle NEVER turns into fat. Lack of exercise will make your muscles shrink. When you have less muscle you burn fewer calories, even at rest. A lack of activity will further reduce the amount of calories you burn. So, yes, if you stop working out you are in danger of looking flabby. That doesn't mean that muscle has turned to fat. They are two totally different types of tissue. If you reduce your calorie intake you may not get any new fat around your muscles. When people stop working out they usually don't reduce their food intake enough. This causes them to lose muscle and at the same time gain weight.

#### Myth #3

I can tell exactly how many calories I have burned by looking at the monitor on my cardio machine

Studies show that cardio machines tend to overestimate how many calories you burn by 10 to 30 percent.

Weight bearing equipment, such as a treadmill an elliptical machine, tends to be more accurate than non-weight bearing equipment, like a stationary bike.

## Exercise – Stay Healthy

8

Weight bearing equipment takes into account your weight when estimating the calories burned. The more you weigh, the more calories you burn.

All cardio machines do not account for body composition. People with less muscle and more fat per pound burn far fewer calories. For example, a 30-pound woman with 20 percent body fat will burn more than a 130-pound woman with 30 percent body fat.

Calculations on non- weight bearing machines often do not take into account speed. The calculations are done on the level of intensity you choose. The machine uses an average speed. (This is usually calculated in rpm, which stands for revolutions per minute.) Next time you are on a stationary bike ride for 10 minutes at the same intensity at 50 and then 75 rpm and notice how similar the calories burned are.

### Core Strength- the basics

Many patients understand that a strong core will help maintain their posture and prevent injuries but are confused as to where to begin. Below are some steps that will begin to strengthen your core:

1. Begin by teaching your brain to "find" and engage the core muscles. Most people do not actively engage these muscles in daily life and need to practice contracting them properly.

In order to locate the muscle deep in your lower abdomen (your transversus abdominis) lie on your back with your legs slightly bent. Picture pulling the area 2 inches below your navel in towards your lower spine. Imagine that you are trying

to push your lower spine onto the floor while picturing your waist narrowing. Hold for a count of 3 and repeat 3-5 times. Be sure that your buttock and neck muscles are relaxed and do not hold your breath.

Practice sliding your shoulder blades down towards your lower back. While you are sitting or standing, picture the muscles that attach onto the lower part of your shoulder blades (your latissimus dorsi) contracting in order to pull your shoulders away from your ears and lengthen your neck. Hold 3 seconds and repeat 3-5 times.

2. Repetition is the key. The more often you tell your brain to engage these muscles, the easier it will be to access them when you need them. Repeat the above exercises at least twice per day.

3. Once you have mastered contracting these muscles properly begin to engage them during exercise and every day activity. For example: Whether you are doing standing bicep curls at the gym or pulling weeds in your garden utilizing your core muscles will improve your technique by keeping your body stable and ensuring your shoulders don't ride up.

4. You can further develop your core strength through targeted exercises such as pilates, yoga or stability ball exercises.

It is more important to do these exercises correctly than it is to do many of them. If you are unsure ask one of the doctors to check your technique.

'Chiropractic is a wonderful means of natural healing'..  
Bob Hope