RUNNING INFORMATION GUIDE

Do you want to be able to...

'RUN FOREVER'?

Following these 7 EASY steps could lead to a lifetime of pain free running.

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1. Be Sure You Are Strong Enough To Run

Although running seems like a relatively 'simple' thing to do, in reality it is a very complex activity and if your body is not strong enough to withstand the forces of the repeated ground reaction forces, you may be setting yourself up for early 'retirement.'

Two essential areas that must be strengthened are:

1. YOUR HIPS/GLUTES

Your glutes (especially the abductor muscles—gluteus medius) play a significant role in how your knee and foot function with each stride. Weakness here is almost guaranteed to result in injury to either your feet, knees, hips or low back.

2. YOUR CORE

Core strength is crucial for injury prevention, the transfer of energy from your upper body to your legs, and for correct posture. Proper running posture includes keeping the spine straight and leaning forward slightly from the ankles, NOT the hip joints (think of your body as a straight, rigid board from head to ankles—it needs to stay straight as you run). As you lean forward from the ankles, you should feel the need to move your foot forward to keep you from falling as your center of gravity moves in front of your feet. Be sure that your feet are UNDER your body rather than IN FRONT of your body.

TIPS to FOLLOW:

1. Strengthen your hip abductors with exercises like clam shells, standing abduction using a resistance band, squats, forward and side lunges, and deadlifts.
2. Strengthen your core with exercises such as front and side planks, partial sit-ups and supine 'bicycles.' Remember proper form is essential!
3. Practice keeping your body straight and leaning forward at the ankles and not the hips/low back.

2. Check your Cadence

Cadence is the number of times your feet hit the ground in a set amount of time. A number of studies have shown that a faster running cadence, ideally above 170 steps per minute (ie. 85 strikes with your right and left foot per minute), leads to a signficant decrease in the loading of the hip and knee joints, with a logically hypothesized conclusion that this will lead to a decrease in some of the most common running injuries. By increasing cadence, stride length is automatically reduced. This results in a runner landing more on the midfoot, rather than the heel. Not only does this limit the shock transmitted into the body, it also minimizes the 'braking' effect of landing with your leg extended far in front of the body. Thus, you limit the stress on your body AND increase your speed!

TIPS to FOLLOW:

1. Count how many times your right foot touches the ground in one minute. Try to keep this number above 85. Good for you if you can manage an even higher cadence. It may take some time to get used to running this way, but stick with it as your body will thank you in years to come!

3. Stretch Your Hip Flexors

Our lives are generally spent in a sitting posture, causing our hip flexors to tighten, which limits hip extension. As a result, running form is altered and increased stress is placed on the low back as it compensates for movement that ideally should be occuring at the hip joints. If this pattern is repeated over and over again, as it does with running, the back wears out prematurely which can result in unwanted pain and the inability to run.

TIPS to FOLLOW:

1. Stretch hip flexors and quadricep muscles regularly
2. Sit LESS. Get a standing desk or make a point of getting up and moving about during your day.

4. Change Your Shoes

Running puts 7 to 8 times more pressure on your shoes/heels than walking and as a result, running shoes, or at least the shock absorption qualities of the foam in their soles, wear out much faster than they would if you just walk. This means you need to keep track of the number of miles you are running, so you have a general idea of when you need to replace them.

There are several factors to consider when determining the life of the shoe. Most good running shoes should last between 400-600 miles. This number will be on the lower end if you are of a heavier build, have a longer stride (land with your heel far in front of your center of gravity) or do more sprinting. Minimalist shoes, which use less foam cushioning, will need to be replaced every 200-300 miles. Often times telltale niggles of pain will tell you when it is time for a new pair of shoes as well.

TIPS to FOLLOW:

1. Since it takes the foam in the shoes at least 48 hours to rejuvenate after a run, you can make each pair of shoes last longer if you have two pairs and alternate them. This may also help to minimize injury since you will always be running on a shoe with the maximum shock absorption.
2. Keep an accurate record of your mileage so that you know when you need to start shopping for new shoes.

'RUN 4 EVER!'

5. Cross Train

As we age, we lose muscle mass and strength throughout our bodies. This process, known as sarcopenia, generally starts in the 40's and tends to pick up speed after age 50. In fact, according to the American College of Sport's Medicine, muscular performance decreases at a rate of approximately 5% per year. If nothing is done about this, these people will eventually have difficulty climbing stairs, walking, or even getting up from a chair or the toilet.

Although running is great cardiovascular exercise, and is necessary for proper blood perfusion to the muscles, it does little for building muscle mass and strength. Thus the reason for strength, or resistance training. It is never too early to start (since the more muscle mass you have to start with will put you in a good starting place as you age), and never to late to start either, since data suggests that resistance training as we age, can slow or even stop, the loss of muscle mass.

TIPS to FOLLOW:

1. Do strength training at least 2-3 times/week.
2. Focus on functional movement patterns, combining multiple muscle groups with each exercise.
3. Include exercises that help improve your balance.

6. Support Your Feet

Certainly, all the other points listed, are key, but when the 'rubber meets the road', in order to prevent injury, it is crucial that the foot is properly supported and functioning optimally when it hits the ground.

Everyone's feet are a little different, and so each runner needs to consider their unique foot posture. Some will be flat and need more support, while others will be more rigid and need more cushiong. Depending on your running style, you may need more cushioning in the heel versus the forefoot or vice versa.

Sometimes a running shoe can not provide the full correction that a foot needs to function properly, in which case a custom orthotic may be needed. It should be noted that not all orthotics are created equal and some actually support your feet no better than something you can buy off the store shelf for a fraction of the price. Educate yourself on what will work best for you.

TIPS to FOLLOW:

1. Find a running shoe expert to help you find the best shoe for you
2. Check out custom orthotics options:
   :: http://www.promotionphysio.com (FREE brochure)
   :: http://www.solesupports.com

7. See Your Physiotherapist

Sometimes it is hard to know if you are 'strong enough to run,' if your feet need special supports, or what strengthening exercises you should be doing along with your running.

A simple screen by a knowledgeable therapist can help identify problem areas (eg. tight or weak muscles, excess foot flattening, poor posture) and address your questions and concerns, that if left unchecked, could potentially lead to injury.

Remember, addressing aches and pains BEFORE they become chronic is key to running longevity. It is much easier and quicker to heal from an injury or pain when dealt with early on. After months of dysfunction there may be multiple other compensations your body has made, which will have to be dealt with as well, taking more time and slowing your return to what you love to do.

TIPS to FOLLOW:

1. See your physiotherapist to ensure you are strong and flexible enough to run and that the alignment of your hips, knees and feet will not lead to injury and shortening of your running career.

Physiotherapy-- the Pro Motion Way:

"The Secret to Your Successful Recovery is Found in What We Do Best Everyday"

WE Offer:

Hope

Hope of being pain free. Hope of being able to run or walk or bend or play again. Hope of returning to normal everyday living. These are the hopes we bring to reality everyday by providing exceptional treatment which has led to the successful recovery of thousands of our patients.

Exercise

Your body needs to be strong enough to tolerate the stresses you put on it everyday. When injuries happen, strength needs to be restored. Through our various assessment techniques, we identify our patient's weak areas and help them master exercises and movement patterns that will help them recover faster and prevent future injury.

Assessment

A thorough assessment is the key to a successful recovery. Our approach with each patient, is to determine why the pain is there. We assess to determine what structure is damaged as well as which weak muscle, stiff joint, or poor movement pattern is responsible for the ongoing pain. We then use a combination of treatment techniques to help our patient's recover and return to pain free living.

Life

When injuries happen and life changes, we guide and instruct our patients on safe and reasonable goals. We help our patients get rid of their pain--we help them get their lives back again. We make people better!