## Did the 2012 London Olympics get your mojo going?

We can help!

PHYSIOTHERAPY
MASSAGE
FITNESS
738-8299

749 River Valley Drive humanperformancecentre.ca

Have the London 2012 Olympics motivated you to get active but you aren't sure where to start, what to do or how much you should be doing? Hopefully I can answer some of those questions for you. When we look at getting an exercise program started for someone we try to ensure we incorporate exercises for three main areas of fitness: cardiovascular endurance, muscular strength and flexibility. Performance athlete training can be more in depth and complicated but we will talk about a basic fitness program here.

Cardiovascular endurance refers to exercise designed at improving the function of the heart, lungs and circulatory system. We aim to elevate the heart rate to a level where the beats per minute remain somewhere between 60 – 85% of the maximum heart rate and have it remain there for 15 - 30 minutes for beginners or 30 - 60 minutes or more for more fit individuals. We encourage cardiovascular exercise



6 – 7 days per week. These are some general guidelines and there may be exceptions to these numbers based on health status, previous heart issues and medications being taken. Within the category of cardiovascular exercise you may hear of programs consisting of steady pace workouts, tempo workouts, interval training or the long workout. These terms refer to the intensity and length of time for individual workouts. Some types of exercise that can be considered cardiovascular exercise include: walking, running, hiking, swimming, biking, aerobics classes, paddling activities, skiing, snowshoeing, many sporting activities, raking, piling wood, some household chores.

muscular Strength/Endurance
refers to resistance exercise designed
to overload the muscles, tendons and
ligaments in such a manner as to
improve the strength of the tissues
without causing injury. This area of
fitness training can become very
complex with a number of
combinations of different exercises,
sets, repetitions, weights, type of
resistance used and work to rest ratios.
The basic principle is to complete

resistance exercises for each body part 2-3 times per week, complete 2-3 sets of 10-15 repetitions of each exercise. This part of the program should follow a cardiovascular and/or dynamic flexibility warm-up. Some types of exercise that can be considered muscular strength/endurance exercise include: weight training with free weights or machines, resistance bands, body weight or calisthenics exercise like push ups or squats, heavy yard work, some household chores.

Flexibility refers to the exercise designed to take a muscle or joint through its full range of motion or improve the range of motion of the muscle or joint. This is usually a slower, more relaxed type of exercise. There are different types of flexibility principles that can be used to design this portion of a program. Static stretches are the type where you take the muscle to near end range and hold a position for a period of time.

Dynamic stretching is where a muscle is taken to end range with a bit of speed repeatedly but is not held at the end position.

Proprioceptive Neuromuscular Facilitation (PNF) is more complex using a contract/relax cycle with resistance generated by the muscle being stretched then a static stretch to follow. We recommend a full body flexibility program (about 5 – 8 minutes in duration) be completed every day of the week, preferably following the other components of the workout.

I know this may sound very confusing and a little overwhelming but don't be discouraged. If you are just beginning, pick one component and get started on it. Once it's going well, then add the second, followed by the third. Before you know it, you will be on the road to the wellness Olympics. If you have been working out for years, use this guide to see if you have a balanced program or would like to add a new component to your current program to spice it up a little.

Source: 2010 Prevention of Running Injuries, Blaise Dubois, BSc Pt, RCAMT, SPD

## Human Performance Centre

Achieve Your Best ... We Can Help.

## Sarah Miller, Kinesiologist, BSc., HK, Ergonomics Consultant Personal Fitness Trainer

If you have any questions or concerns for Sarah, please contact her directly at sarah.miller@humanperformancecentre.ca.