

## PVBM Healthfirst

presents

### HOW TO STRETCH

#### INCREASING FLEXIBILITY

Perhaps nothing can increase functional movement and release stress and muscular tension faster than stretching. Unfortunately, perhaps because it seems so simple, even elite athletes have to be reminded on a regular basis of its importance.

#### THE BASIC PRINCIPALS

##### When and how much do I stretch?

When you stretch a muscle, you will also fatigue it. Because of this, you should always stretch to increase flexibility AFTER your workout to reduce the chance of injury caused by asking a tired muscle to react quickly. Before you workout, you would want to engage in only light stretching to loosen up. In all cases be sure to warm up the muscles with a light walk or jog before you begin. NEVER STRETCH A COLD MUSCLE!

##### The Stretch Reflex and its importance to your success.

Everyone who has bounced when they stretch has experienced the "stretch reflex". It is the body's way of protecting you from doing damage by rapidly forcing a muscle into a range of motion that it is not used to. With this in mind, we must break down the stretch reflex by holding a "static" or constant tension on the muscle for 20 to 30 seconds. When the stretch reflex releases, you may then safely and effectively begin to stretch the muscle. Remember, when performing a static stretch, less is better. NEVER FORCE A STRETCH, FOR EVEN A SHORT PERIOD OF TIME.

##### Proprioceptive Neuromuscular Facilitation (PNF)

PNF simply stated means that putting resistance on a stretched muscle will increase flexibility. It works like this. When a muscle fiber fires, it contracts 100% or not at all. Therefore, the difference between picking up a towel and picking up a chair is that it will require more muscle fibers to pickup the chair because it is heavier.

With this in mind, please sit on the floor with your legs in front. If you feel behind your leg when you bend over, you will feel a rather thin strip of muscle that is stretched. To introduce PNF, you would simply push your heel toward the ground while continuing to maintain your static stretch. This will engage more muscle fibers (because of the increased resistance) and increase your overall flexibility. This is a very primitive explanation, but suffice to say that PNF is the fastest and safest way to increase flexibility.

### To Perform PNF

- 1) Hold a static stretch for a count of 20 to release the stretch reflex.
- 2) While holding the static stretch, press firmly against the stretch for a count of 6.
- 3) Release the tension while simultaneously trying to increase the stretch for a 6 count.
- 4) Repeat steps 2 and 3 for 1 - 3 times, always ending on a static stretch.

### THE IMPORTANCE OF ORDER

Most people will begin a stretching routine by bending over and bouncing several times in an effort to touch their toes. We, of course, now know that bouncing triggers the stretch reflex and in fact makes a muscle less flexible. But another point to consider is the order that we stretch our muscles.

It makes sense that it would be easier to more effectively stretch one leg at a time rather than two, but lets go a step further. Does your lower back keep you from being able to stretch? When seated on the floor and trying to reach out and touch your toes, would it not be easier to reach them if your calf muscles were flexible enough that you could draw your toes toward your reaching hand? Here is a good order to properly stretch your lower body.

Low Back
Groin
Glutes
Calf
Hamstring/One Leg
Hamstring/Other

### A WORD ABOUT RECOVERY

*The American Heart Association* has advised that weight/resistance training should be viewed as your salary, and cardiovascular/aerobic training as your bonus. Not only does this provide optimum results in an exercise program, but promotes recovery by cleansing the body of the waste products of exercise during the cardiovascular phase. Stretching after the cardiovascular exercise further aids in recovery by squeezing additional waste products from the tissues.