

## Tips, Principles and Basics of Exercise

Exercise is an important part of improving and maintaining normal, comfortable spine function. It is important to practice these exercises regularly so you can maintain your fitness level.

What are the different types of exercise? Exercise can be divided into three basic groups:

1. **Strengthening:** repeated muscle contractions until the muscle becomes tired.
2. **Stretching or Flexibility:** slow, sustained lengthening of the muscle.
3. **Aerobic:** steady exercise using large muscle groups.

All exercises should be performed *slowly and comfortably* to avoid injury. When performing strengthening and flexibility exercises, remember to *breathe naturally and do NOT hold your breath*; exhale during exertion and inhale during relaxation. *Keep ideal or tall posture* throughout all exercises.

A program of strengthening, stretching and aerobic exercises will improve your overall fitness level. Research has shown that people who are physically fit are more resistant to back injuries and pain, and recover quicker when they do have injuries than those who are less physically fit.

### Strengthening Exercise

Strengthening exercises help increase muscle tone and improve the quality of muscles. Muscle strength and endurance provide energy and a feeling of wellness to help you perform daily, routine activities. Strength training also helps your body's physiology (functioning), thus maintaining your optimal weight.

Adequate strength of abdominal and back muscles helps stabilize the spine, allows proper spinal movement and makes it easier to maintain correct posture. Strong hip and leg muscles are important to perform proper lifting techniques and body mechanics. **Examples might include weight training and swimming.**

### Stretching/Flexibility Exercise

Flexibility is the ability to move your spine, arms and legs through their full range of motion. Stretching will help improve your flexibility.

Adequate flexibility of tissues around the spine and pelvis allows full, normal spinal movement, prevents abnormal force on the joints and decreases the

possibility of injury. Stretching also prepares muscles for activity; stretching should be done before and after each workout to prevent muscle strain and soreness and to help avoid injuries. **Examples here are yoga and Pilates.**

When performing flexibility exercises, stretch as far as you can and **hold the stretch for 30+ seconds** and then ease back. Each stretching exercise should be performed slowly, with no sudden jerking or bouncing. Bouncing is more likely to injure or strain a muscle or joint. Always work within the pain-free range of motion if you have an injury or arthritis.

### **Aerobic Exercise**

Aerobic exercise provides cardiovascular conditioning--it strengthens the heart and lungs and improves the body's ability to use oxygen. Some other benefits of aerobic exercise includes increased energy levels, improved mood, better sleep habits and decreased blood pressure. Aerobic exercise also burns calories and improves your metabolism, helping with weight loss. Some examples of aerobic exercise include **walking, jogging, cycling, skating, rowing, swimming, and dancing.**

In general, to achieve maximum benefits, you should gradually work up to an aerobic session lasting 30 to 60 minutes, 3 to 5 times a week. Please check with your physician before starting any aerobic program.

Your exercise routine should consist of a *5-10 minute warm-up* (including stretching exercises) before the aerobic activity and *5 to 10 minutes of a cool down* (stretching and slower activity) after the activity. *Avoid high or moderate impact exercises if injured or you have a spinal weakness.*

### **Here are some precautions with aerobic exercise:**

Unless you are very fit skipping puts a higher pressure on the discs of the spine and should be avoided. Running can be done as long as it doesn't increase lower back pain. When walking or running, wear supportive, well-cushioned shoes and walk or run on a level and preferably soft (grass) surface.

### **What should I know about pain during exercise?**

Do not ignore pain - if you feel increased pain or pain spreading to the legs, do not continue the activity. If you continue to perform the activity while you are in pain, you may cause greater stress or damage on your joints. Seek the advice of a chiropractor or physical therapist. Fear of pain can cause unnecessary inactivity. Learn to "read" your body and know when you need to stop an activity.