

## **Exercise Precautions**

As with any form of physical activity, caution must be taken when performing a structured exercise program. Use caution when exercising as accidents and injuries can be traumatic and even life threatening. Some individuals have pre-existing risk factors for injury. Physical exams, health history questionnaires, and pre participation questionnaires reveal these risk factors and can prevent needless injury. Be sure to consult your physician before beginning a new exercise program.

### Risk Factors

If you have any of the following, please consult your physician before beginning an exercise program.

- Any and all heart abnormalities or disorders
- Any respiratory disorders
- Individuals who are obese (Body Mass Index >30kg/m<sup>2</sup>, or waist girth >100 cm)
- Age - Men above forty and Women above 50 should have an annual physical exam
- Currently taking medications
- Currently active less than 2 days/week
- Smoker
- High Blood Pressure
- High Cholesterol

### Overtraining and Muscle Injuries

Overtraining in exercise is a very common. America is an ALL or NONE nation. We either abstain from activity or over train. Both extremes are dangerous.

Many people believe - the more you do the better. No pain – No gain, right? Wrong. The human body is resilient and will respond to stress and rebuild itself. Too much stress will cause the breakdown of tissue beyond repair.

A warning sign of overtraining is constant muscle soreness. This is the body's warning that you have exceeded it's ability to repair itself. Other signs of overtraining are recurrent colds, restless sleep, weight loss, diminishing performance, and chronic fatigue.

It is normal, however, to experience some soreness if you are beginning a new routine or trying a new exercise. Delayed Onset Muscle Soreness or DOMS is a phenomena that occurs when the muscle group becomes sore a few days after the initial exercise bout. DOMS is caused by exercise that your body is not used to. When your body adjusts to the new exercise, DOMS will no longer occur.

If you experience muscle soreness, administer an ice compress and rest. Avoid the use of heat to soothe aching muscles, as this will only make them stiffer.

### Exercise and Pregnancy

Everyone wants to have a healthy pregnancy. However, it is not a proper time to begin a strenuous exercise program or increase the intensity of your existing exercise routine. Your goal should NOT be weight loss.

The main concerns of pregnant women while exercising should be safety, balance, heat, heart rate, and blood sugar. Consider moving any biking and walking inside to a stationary piece of equipment. This will ensure a safe environment and a cool atmospheric temperature. Consider keeping a bottle of Gatorade or any glucose solution with you so that your blood sugar is not compromised as you exercise. It is important to keep your heart rate below 140 beats per minute.

There are some women who believe that they can workout at their high pre-pregnancy intensities, however this is questionable. During pregnancy the woman is supplying nourishment and oxygen to the fetus via her uterine blood flow, and high intensity exercises have been shown to decrease the amount of this blood flow. During high intensity exercise the fetus is being deprived of food and oxygen, which are essential for proper development.

Moderate exercise on the other hand has been shown to be highly beneficial for women during pregnancy. Moderate exercises like walking have been shown to maintain the mother's cardio respiratory fitness, and studies indicate that it may also help shorten labor, and reduce the chance of a Caesarian-section birth.

The following are some guidelines to use when developing a pregnancy exercise program:

- Heart rate should not exceed 140 beats/minute
- Exercise should be performed at least three times a week
- Exercise should last anywhere from 15-45 minutes
- Exercise intensity should be decreased as the pregnancy progresses. The mother should be very careful not to overexert herself.
- After the fourth month of pregnancy, exercises where you lay on your back should no longer be performed.
- Exercise in a cool environment
- Keep glucose solution (Gatorade) with you and drink throughout exercise bout

Unfortunately there are some conditions that can occur, where exercise can be very harmful and shouldn't be performed. They are as follows:

- Pregnancy induced hypertension, also known as Preeclampsia
- Pre-term rupture of membrane
- Pre-term labor during the prior or current pregnancy
- Incompetent cervix
- Persistent second to third trimester bleeding
- Intrauterine growth retardation

#### Guidelines to Help Reduce Risk

- Consult your physician
- Stretch the major before joints after every exercise session
- Engage in muscle-strengthening exercises in combination with aerobic exercise to keep all muscles in balance
- Warming up and warming down with a slow aerobic exercise before and after each hard aerobic session
- Wear proper attire. Especially shoes.
- Use equipment properly. If you don't know how, just ask someone.
- Begin your exercise program gradually. Don't over exert yourself.
- Make sure you give yourself plenty of rest and relaxation.