Keeping fit for life

What Is "Physical Fitness"

Physical fitness is a condition that helps us look, feel and do our best. More specifically, it's the ability to perform daily tasks vigorously, with energy left over for enjoying leisure-time activities and meeting emergency demands. It's the ability to endure, to bear up, to withstand stress, to carry on in circumstances where an unfit person could not continue, and is a major basis for good health and well-being. Physical fitness involves the performance of the heart and lungs, and the muscles of the body. And, since the state of the body can affect the mind, fitness can influence qualities such as mental alertness and emotional stability. Fitness is an individual quality that varies from person to person. It is influenced by age, sex, heredity, personal habits, exercise and eating practices. Whilst you cannot do anything about the first three factors it is within your power to change and improve the others where needed.

Exercise Benefits

The most dramatic benefit of exercise is to the heart and blood vessels. The more active you are the less likely to develop heart disease. Also, exercise requires less pumping from the heart to supply oxygen to those muscles. An
exercised body also allows the heart to pump less rapidly while at rest. A body in good shape tells the heart to take it easy when the heart is resting, causing less wear and work on the heart muscle. Exercise also helps cholesterol to move out of the body rather than sticking on the artery walls and tissues. Exercise tends to help mental stability by reducing major mood swings and, of course, exercise reduces body fat and can improve physical appearance, which can also improve self-confidence and mental attitude.

**Dangers of non-exercise**

Those who do not maintain physical fitness through a regular, vigorous programme are more likely to develop certain problems. Heart and lungs are more prone to disease. Unexercised weak muscles put extra strain on joints and ligaments. Regular exercise will keep joints, ligaments, and muscles flexible and less likely to strain. Vigorous exercise also has been shown to have psychological benefits too. People who exercise regularly usually sleep better, wake up happier and are better able to concentrate and perform. Fortunately, it is never too late to start with some type of exercise programme.

**Effects of Stress**

Stress is a more important factor in physical well-being than many experts have recognised until now. New research shows that as stress accumulates, an individual becomes increasingly susceptible to physical illness, behavioral and emotional problems and accidental injury. As an example, minor muscular twitches and nervous tics become more noticeable when one is under stress. A variety of other physical symptoms may be recognized. From the digestive tract to the major organs of the body - all are affected dramatically by stress. While the outward appearance to the body may be physically fit, the inside may be causing problems and treatment is indicated.
Exercise Sessions

The desire to improve yourself is the first step to physical fitness and the next step is to begin a fitness programme. Before starting any fitness programme, consider whether you should see a doctor first. A doctor will examine your heart and test your fitness level and then recommend an exercise that is right for you. Once you begin exercising, you should start with 20 minutes at a time, three times a week. After performing at this level for two weeks, increase the workout to four times per week. You may also need to make some changes to your diet. It is a good idea to increase the amount of protein to help build muscle and increase carbohydrates for energy. You should cut down on fats and sugars as these often do more to hurt than to help. Once you have begun your fitness programme, stick with it until you see the results you want.

Should You Consult A Doctor First?

Most people do not need to see a doctor before they start an exercise programme since a gradual, sensible exercise regime will have minimal health risks. However, there are some people who should seek medical advice. To find out if you should consult a doctor before you start, use the following check list developed by the National Heart, Lung and Blood Institute - NHLBI. If you note one or more items, talk to your doctor before you start.

From the following list, take note of those items that apply to you:

1. You have heart trouble, a heart murmur, or you have had a heart attack.
2. You frequently have pains or pressure in the left or mid-chest area, left neck, shoulder, or arm, during or right after you exercise.
3. You experience extreme breathlessness after mild exertion.
4. Your blood pressure is too high, and/or it is not under control. Or you don't know whether or not your blood pressure is normal.
5. You have bone or joint problems such as arthritis.
6. You are over 60 and not used to vigorous exercise.
7. Your father, mother, brother, or sister had a heart attack before age 50.
8. You have a medical condition not mentioned here which might need special attention in an exercise programme.
Keys to Fitness Success

The key to a successful exercise programme is choosing an activity that you will enjoy. To determine what type of exercise is right for you, consider the following:

1. How physically fit are you and what activities will help you achieve the level of fitness you are after?
2. Do you like to exercise alone or with other people and do you like to exercise indoors, outdoors or in your home?
3. How much money are you willing to spend on equipment or facilities?
4. When can you best fit the activity into your schedule?

By choosing activities you like, you can afford and can fit into your schedule, you'll be more likely to exercise regularly, keep on exercising, and enjoy its many benefits. To help keep you going, here are a few helpful tips:

- Choose activities that you enjoy and make exercise part of your daily routine
- Set realistic goals
- Exercise with a group for social interaction as well as physical fitness
- Keep a written record of your progress
- Exercise to music
- Select loose, comfortable clothes for your chosen activity and wear appropriate shoes
- Pay attention to your body and stop if you feel pain
- Increase your daily activities, park away from a building and walk; take the stairs instead of the lift
- Exercise indoors when temperatures outside are extremely hot or cold
- Find a “fitness buddy” so you can help each other stay motivated

Dynamic versus Static Exercise

There are two types of exercise to consider: dynamic and static. If you swim, jog or take an aerobic dance class, you're involved in a dynamic exercise. That's because all those activities involve many muscle groups with different movements and they all strengthen your heart and lungs.
Target Heart Rate

If you're ready to start a dynamic or aerobic fitness programme, it is important to know your heart rate because the key to getting the most out of aerobic exercise is reaching your target heart rate and holding it there for about 20 to 30 minutes.

First, you need to establish your maximum heart rate. If you're a man, take half of your age and subtract from 205. If you're a woman, subtract your age from 220. For example: if you're a 40 year old woman, your maximum heart rate is 180. The next step is to figure out your target heart rate. Just take 80% of your maximum heart rate. So, if your maximum heart rate was 180, then your target heart rate is 144. Time your heartbeat during your exercise programme and when your reach the target rate, keep exercising at that level for about 20 to 30 minutes.

Choosing Exercises and Activities

If you want to condition your heart and lungs, you'll need to choose exercises which raise your heart and breathing rates and are done for a duration of at least 15 to 30 minutes without interruption. You must also do these exercises a minimum of three times per week. There are three different types of activities that will give you various levels of conditioning: very vigorous, moderately vigorous and non vigorous.

**Very vigorous** activities include: cross-country skiing, uphill hiking, jogging, skipping, rowing, running in place and stationary cycling.

**Moderately vigorous** activities include: cycling, downhill skiing, basketball, calisthenics, hockey, handball, racquetball, squash, swimming, singles tennis and walking.
Non vigorous exercise DOES NOT condition your heart and lungs. Some of those activities include: bowling, football, golf, softball and volleyball. These activities however, can be enjoyable, help to improve coordination and muscle tone and relieve tension.

The Four Components of Physical Fitness

Physical fitness is most easily understood by examining its components. There is widespread agreement that there are four basic components.

Cardiorespiratory endurance is the body's ability to deliver oxygen and nutrients to tissues, and to remove wastes, over sustained periods of time. Long runs and swims are among the methods used to assess cardiorespiratory endurance.

Muscular strength is the ability of a muscle to exert force for a brief period of time. Upper-body strength, for example, can be measured by various weight-lifting exercises.

Muscular endurance is the ability of a muscle, or a group of muscles, to sustain repeated contractions or to continue applying force against a fixed object. Push-ups are often used to test endurance of arm and shoulder muscles.

Flexibility is the ability to move joints and use muscles through their full range of motion. The sit-and-reach test is a good measure of flexibility of the lower back and backs of the upper legs.

Your Workout Schedule

How often, how long and how hard you exercise, and what kinds of exercises you do need to be determined by what you are trying to accomplish for yourself and not others. Your fitness goals, present fitness level, age, health, skills, interest and convenience are among the factors you should consider. For example, an athlete training for high-level competition would follow a different programme than a person whose goals are good health and the ability to meet work and recreational needs.
Here are the amounts of activity needed for the average, healthy person to maintain a minimum level of overall fitness. Included are some of the popular exercises for each category.

The **warm-up** which should be five to ten minutes of exercise such as walking, slow jogging, knee lifts, arm circles or trunk rotations. Low intensity movements that simulate movements to be used in the activity can also be included in the warm-up.

**Cardiorespiratory endurance** can be achieved with at least three 20 minute bouts of continuous aerobic exercise each week. Popular aerobic conditioning activities include brisk walking, jogging, swimming, cycling, rope-jumping, rowing, cross-country skiing, and some continuous action games like racquetball and handball.

To build **muscular strength**, you'll need a minimum of two 20-minute sessions per week that include exercises for all the major muscle groups. Weight training is the most effective, but not the only, way to increase strength.

**Muscular endurance** can be achieved with at least three 30-minute sessions each week that include exercises such as calisthenics, pushups, situps, pull-ups and weight training for all the major muscle groups.

To gain **flexibility**, you'll need ten to twelve minutes of daily stretching exercises performed slowly, without a bouncing motion. These stretching exercises can be included after a warmup or during a cool down.

Finish your workout with a **cool down**. A minimum of five to ten minutes of slow walking, low-level exercise, combined with stretching is a good cool down.

**Weight Control vs Fat Control**

The key to weight control is keeping food consumption and physical activity in balance. When you consume only as many calories as your body needs, your weight will usually remain constant. If you take in more calories than your body needs, you will put on excess fat. If you expend more energy than you take in, you will burn excess fat.
Exercise plays an important role in weight control by increasing energy output, calling on stored calories for extra fuel. Recent studies show that not only does exercise increase metabolism during a workout, but it causes your metabolism to stay increased for a period of time after exercising, allowing you to burn more calories. How much exercise is needed to make a difference in your weight depends on the amount and type of activity, and on how much you eat. A medium-sized adult would have to walk more than 30 miles to burn up 3,500 calories, the equivalent of one pound of fat. Although that may seem like a lot, you don't have to walk the 30 miles all at once. Walking a mile a day for 30 days will achieve the same result, providing you don't increase your food intake to negate the effects of walking. If you consume 100 calories a day more than your body needs, you will gain approximately 10 pounds in a year. You could take that weight off, or keep it off, by doing 30 minutes of moderate exercise daily. The combination of exercise and diet offers the most flexible and effective approach to weight control.

For comments and suggestions on any health and wellbeing @ work topics, email contactus@workcare.org.uk