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TOTAL FITNESS SOLUTIONS

Aerobic Exercise

When people talk about fitness they generally mean cardiovascular fitness. This involves aerobic exercise.

Aerobic exercise utilises the cardiovascular system, i.e. the heart, lungs and blood vessels to deliver oxygen to the working muscles in order to assist in the creation of energy. This is in contrast to anaerobic exercise that involves the creation of energy *without* the use of oxygen. The anaerobic energy system, therefore, can only be utilised over a short period of time.

Most activities rely almost completely on the aerobic energy system, hence the importance of developing this system. Your level of aerobic fitness is measured by the amount of oxygen that your body can utilise during physical activity, i.e. maximal volume of oxygen (VO2Max) uptake. By increasing the ability of your body to use oxygen, the fitter you will become and therefore the more work you can perform.

Ideally, to increase your aerobic fitness, you should perform an activity such as running, walking, swimming or cycling. The duration, frequency and mode of exercise will vary depending upon your individual needs and goals.

Your aerobic fitness can be increased by up to 30% from the untrained level and improves due to increases in:

- The size of the heart muscle (this allows for an increase in Cardiac Output, i.e. the volume of blood pumped from the heart in one minute);
- The maximum volume of the lungs;
- The amount of haemoglobin (the oxygen carrying cells) in the blood; and
- The number and size of the mitochondria in the muscle cells.

These changes result in a more efficient delivery and use of oxygen and subsequently an improvement in your aerobic fitness level. Cardiovascular fitness, like muscle strength, works on a *'use it or lose it'* basis. You will suffer a decline in aerobic fitness after just 3 days of inactivity (i.e. lack of activity of a suitable duration and intensity).