Conditioners

What is fitness?

Fitness or stamina sometimes used synonymously, the ability to work at high intensity for a relatively long time.

Why do you need a good condition?

In previous theory section have been taken up fitness training leads to positive effects in preventing certain ill judges, mainly cardiovascular diseases. However, there are more positive effects of fitness:

• Large displacement, ie, the heart can pump out more blood pers heartbeat.

• Lower resting heart rate. The body's need for oxygen at rest is namely constant and then the same amount of oxygen to be pumped out and the training has improved the stroke volume pulse will therefore drop.

• Increased oxygen uptake and thus increased endurance during heavy work.

• Decreased production of lactic acid during exercise.

• Lowered blood pressure?

• You have an outlet for stress - becomes less tense and irritable. Many people have experienced that it can help to go out on a jog or engage in any other physical activity when feeling dissatisfied with life.

• Cardiovascular exercise combined with proper diet is a good way to keep weight.

• Are you physically fit, the conditions are more that you use your body correctly in different work situations, enabling you to prevent repetitive strain injury.

• Cardiovascular exercise is an important factor in preventive health work. Experience shows that such training to some extent inhibit the development of atherosclerosis. Exercise also increases the number of small blood vessels - capillaries - not only in skeletal muscles, but also the heart. If you suffer a heart attack, a person with good fitness have a greater ability to withstand damage and to recover from the disease.

Two forms of stamina

1. After you have run a distance at a slow pace, the heart beats faster and stronger. The exercise has increased the muscles need oxygen. Energy production depends on how much oxygen the blood can deliver to the muscles. We call this form of aerobic energy production, i.e. with the help of oxygen - and then speaks of combustion of either carbohydrate or fat. It is in this manner - by means of an "internal combustion engine" - that the body obtains the most energy is consumed. Any kind of movement thus requires energy. Even at rest, we need energy to the physiological processes in the body to maintain the body temperature.

2. If you run the same route but with almost maximum speed you can get into a situation where you are standing and puffing and groaning after the exercise. This means that the body has not had enough oxygen during the process and therefore must bring it afterwards. Where did the muscles the energy from when "internal combustion engine" was not enough?

In muscle - but also in the liver - there are some energy stored in the form of carbohydrates (glycogen or "muscle sugar"). Glycogen can be used during work very first seconds. Continuing the work must be new energy produced. It can be done without the help of oxygen - that anaerobically. One speaks then of digestion, the lactic acid (lactate) is obtained as a "by-product". In this way, the body has a "spare" when oxygen is not enough. The acidity of the lactic acid will after a while be affected muscle's internal environment, which soon leads to the deterioration of muscle function. Muscles feel sore and reacts badly, and it calls therefore lactic acid for a "fatigue substance". Each training session should end with nedjoggning to muscle easier to burn the remaining lactic acid.

At rest and at low workload formed practically no lactic acid at all, but if the load rapidly increases the oxygen supply to become insufficient and a deficit arises. The anaerobic processes will start and lactic acid is obtained as a by-product.

• Please have to work so quietly that energy production as much as possible is done through access to oxygen - aerobic.

• During heavy work you should insert short breaks so that the lactic acid in the muscles have the ability to disappear (interval work).

Both at work and during leisure time, it is the aerobic processes that we have the most use for. The anaerobic processes linked primarily in the following situations:

- The start of a job

- When we suddenly increase the intensity of work

- In the short-term peak loads

- In heavier static work

Cardio limiting factors

There are several factors that are important for a person's fitness:

• Congenital characteristics (inheritance)

• Age and sex

• Training Permits

The only factor we can control is the training mode. We can arrangement such as improving the training condition of the oxygen transport exporting bodies, ie heart, lungs and circulatory system. The result of aerobic exercise will improve oxygen uptake.

Anaerobic exercise aims to increase the ability to produce energy, but also to learn that for a long time purely psychological "withstand" the lactic acid formed.

Stroke volume, pulse rate and minute volume

During rest the heart pumps out 4-6 liters of blood per minute. When you start moving than the muscles need oxygen and because it is the blood that transports oxygen from the lungs to the muscles, so the heart must ensure that pump out more blood. During the maximal exertion, the heart can pump out 30-40 liters of blood per minute. That is about what it fully open the tap to the tub can perform.

Stroke volume is the amount of oxygenated blood that the heart pumps out in a single blow.

Pulse rate is the number of heartbeats per minute.

Minute volume is the amount of blood flowing through the heart in one minute.

Minute volume = stroke volume x heart rate

The minute volume can thus be increased in two ways:

- By heart pumps more blood per beat (larger displacement)

- By increasing the heart rate (increased pulse rate)

The cardio will the heart muscle to increase in size and efficiency, resulting in increased stroke volume and decreased resting heart rate. Follow vilopulsens reduction can therefore get a "receipt" of your improved fitness.

The explanation is that the body's need for oxygen at rest is constant regardless of whether one is trained or not. Since the same amount of oxygen to be pumped out and training have increased stroke volume pulse will drop. Through good condition, you can then "save" the heart, in that it works more economically.

Training Permits and resting heart rate

The resting heart rate is usually between 60-80 beats per minute among people who do not exercise regularly. Well-trained athletes often have a resting heart rate of less than 50 and may in extreme cases be as low as 30-35 bpm. In persons with very poor fitness can register a resting heart rate of up to 90-100 beats per minute.

Resting heart rate is thus reduced as the cardio improved. But you must be aware that resting heart rate is also influenced by physical factors such as fatigue, heat and smoking, and psychological factors such as stress and stress. Gender and individual differences also contribute to the differences. To compare different people's resting heart rate says therefore scarce.

Of exercise

If the objective of the training is to improve or maintain fitness should be the major muscle groups to be in work. That would provide up to an exercising effect on the lungs, cardiovascular system. To train 30 minutes 2-3 times a week may be just right. Ideal branches cardio is therefore eg cross-country skiing, jogging, cycling and swimming. Aerobic exercise can be conducted as either distance training or interval training:

Distance training is aerobic work at a steady pace for a long time, from 15 minutes up to several hours. Sometimes it distinguishes between short-distance training and long distance training. Selection of pace, however, is the same in both cases, it is only time that varies.

Fast Distance is even working with relatively high intensity for 10-20 minutes, aiming to approach the race speed.

Short interval cardio is where work and rest are alternated in short periods. The most common forms are 15-15 seconds, 70-20 seconds. "The rest" - which should be of type walking / light jogging - should not be longer than the working period and the intensity should not be higher than the body can get rid of any lactic acid during rest. Most common is to conduct 10-20 intervals and then take a break of a few minutes, and then eventually repeat the series.

Long range is the working period of 3-8 minutes alternated with active rest for 2-4 minutes. The pace will be relatively high and the recommended heart rate is about 20 beats below your maximum heart rate. This leads to some lactic acid, but the momentum must not be higher than that momentum can be maintained during all intervals. Total exercise time should be 15-20 minutes.

Fartlek is lekbetonad running for long distances depending on terrain and mood. It can also switch between running and walking, and thus becomes almost a mix of range work and distance training.

Anaerobic work - or "lactic acid training" - is an exercise that requires the maximum or near maximum speed. Such training should not occur in recreational sports other than to ever touch it.

Train systematically - plan your training

See first and foremost to load adapted to your state of training - it is especially important not to train too hard in the beginning. If you have not exercised regularly before, it is sufficient to initially train two or three times a week for a period of six to eight weeks. If the goal is to improve fitness more you should train three times a week, or you can increase the amount of exercise. Then, when you've trained up to a level you are happy with, you can maintain the shape through regular exercise at fixed times. Remember that exercise is specific, which means that it is precisely those bodily functions that are activated during training, which also stimulated the proliferation and thus adapted to the new situation. You become good at just that you practice other words. If you exercise three to four times per week with moderate load, you should last from 15 minutes to one hour. When beginning an exercise program, it is easy to set up too hard regardless of the activity concerned. Here is some advice on a cautious start:

- Try to find a route that does not have a hard surface, preferably in diverse terrain.

- Make sure you have good shoes that fit your foot.

- Warm up and stretch the muscles.

- Start by walking 2-3 km every day in the week.

- Then go over to switch between time and calm jogging in a week.

- Let races dominate more and more and lengthen the distance. Vary the pace.

- Listen to your body, and was wary of overloading.

If you should get yourself enduring habits, you should choose activities that you enjoy. You can feel free to alternate between several. Examples of activities that provide good training effect:

- Walking

- Running / jogging

- Orientation

- Skiing, ice skating

- Dance, gymnastics, aerobics

- Swimming

- Ball games

- Cycling

Summary

• Fitness is the ability to work at high intensity for a relatively long time.

• Good fitness is important for maintaining good health and increase job satisfaction and performance.

• The body can derive energy and with the help of oxygen - aerobic - and when one speaks of combustion, and without the help of oxygen - anaerobic - and then talk about digestion.

• define physical fitness of the heart and of the oxygen transporting the capacity and ability of muscles to take up oxygen and produce energy.

• The most common training models are distance training, interval training, and fartlek, and they are about to vary the amount and intensity of the workout.

• Walking, jogging, orienteering, skiing, dancing, swimming, most ball games and cycling are appropriate activities for cardio.