

My Six Week Training Programme to Improve Cardiovascular Fitness

We were asked to create a six-week training programme to improve our cardio-vascular fitness level. Cardiovascular refers to the heart and blood vessels. Cardiovascular fitness is improved by regular training. When a person trains regularly, their stroke volume increases both at rest and at work. The heart rate slows down and the heart is more efficient. Cardiovascular training is aerobic respiration. Maximum heart rate is not affected by training. It can be worked out by using this formula: $220 - \text{age} = \text{maximum heart rate}$. My maximum heart rate is 205 bpm. I will be aiming to get my heart between 60-80% of my maximum for 20 minutes three times a week. My heart rate must be between 123-164 bpm. I will exercise three times a week and hold my heart rate between 123-164 bpm. I will try to apply all aspects of training. 1) Systematic - my training will be planned. 2) Individual needs - I have chosen to do training that I enjoy. 3) Specificity- the training I do will be the training needed to improve cardiovascular fitness. 4) Overload- The training is in a worthwhile target (60-80% of maximum HR). 5) F.I.T.T- Frequency, I will train three times a week. Intensity, I will train as hard as I am supposed to (60-80% of maximum HR). Time, each session is 20 minutes long. Type, the training I'm doing is appropriate for cardiovascular fitness. 6) Progression- I may increase my training programme after six weeks. 7) Reversibility- I understand that principles of training are reversible. When training stops fitness will decrease gradually.

Any training session must include three stages. The first is a warm up. There are many reasons for a warm up. One is to increase the heart rate this prepares the heart and lungs for the demands exerted on them during exercise. The second reason is to increase oxygen flow into the muscles. The third reason is to help prevent early fatigue. The fourth and final reason is to increase muscle temperature; this leads to greater elasticity of the muscles, which helps prevent injury and gives a better performance. You must stretch out the muscles you will be using before exercising. This stops the muscles from cramping or ceasing up. Before exercising I will warm up using this method. I will start by rolling my ankles. Both clockwise and anti-clockwise. Next, stand with one foot in front of the other. Have both feet facing forward, bend the back leg and keep the front one straight. Put your hands above the bent knee and pull up toes of your straight leg up towards your knee. Change legs and repeat. Next, stand on one leg and hold the foot against the buttock. Keep the knees together and pull the foot in towards you. Repeat with the other leg. Then stand with legs just over shoulder width apart and keep both feet parallel and facing forward. Keep both legs straight and bend over to touch the floor inline with your toes. After that it's feet parallel and facing forward again. Hold your arms in front of you, elbows bent, hands almost touching. Twist left and hold for eight seconds then twist right and hold for eight seconds. Repeat this three times. Next, cross one arm across your chest and keep it straight. Lock the other one around it at the elbow. Repeat it on the other arm. Then place your right hand over your right shoulder and between your shoulder blades. Hold the right elbow with your left hand and push down gently. Repeat with other arm. Shake arms out afterwards. Roll shoulders forward slowly. Then backwards. Make ten circles each way.

Afterwards, Tick-tock your head from side to side. Hold every stretch for eight to ten seconds. Do the main exercise. After the main activity you must do a cool down. This is to relax your muscles slowly. The muscles may have produced some lactic acid and you must work them down slowly to make sure you don't ache afterwards. Do the same warm up routine but be gentle on the muscles. Don't work too hard on the cool down.

You should test your heart rate (HR) before you start your exercise programme. This way you will know how much you have improved it by when you test it again at the end. Some tests for cardiovascular fitness are the bleep test and the recovery rate test. For the recovery rate test you must check your resting pulse rate. You should do one minute of solid sprinting. You should work as hard as you possibly can for one minute. As soon as you finish sprinting record your heart rate for that minute. Record how long it takes for your heart rate to return to normal. The number of minutes it takes to return to your resting heart rate is your recovery rate. My resting heart rate was 72 bpm. I did sprinting for one minute and here were my results:

Minutes After Exercise	Pulse Rate
<u>0</u>	<u>72</u>
<u>1</u>	<u>144</u>
<u>2</u>	<u>108</u>
<u>3</u>	<u>100</u>
<u>4</u>	<u>82</u>
<u>5</u>	<u>75</u>
<u>6</u>	<u>72</u>

<u>Week/Session</u>	<u>Main Activity</u>	<u>Comments</u>
<u>Week 1</u> Session 1-Monday	Swimming-25lengths (70% effort)	I found it quite tempting to stop but managed to keep going for 20mins.
Session 2- Wednesday	Moderate Jog (65% effort)	Very relaxing. Nice to be alone.
Session 3- Saturday	Jogging at Gym- high intensity (80% effort)	Tiring but good facilities. The music helped.

<u>Week 2</u> Session 1- Monday	Swimming- 25lengths (70% effort)	Seemed to go slower this week. Found it's easier if I don't talk.
Session 2- Wednesday	Moderate Jog (60% effort)	Jogged with a walkman. Still relaxing.
Session 3- Saturday	Missed Gym. Still asleep.	-----

<u>Week 3</u> Session 1- Monday	Swimming- 25lengths (65% effort)	Lost the motivation this week.
Session 2- Wednesday	Intense Jogging. (75% effort)	Still with music. Slightly stressed so worked harder.
Session 3- Thursday	Swimming- 27lengths (70% effort)	Hardly talked at all. Getting easier.

Week 4		
Session 1- Monday	Swimming- 30lengths (75% effort)	Loads of effort this week.
Session 2- Wednesday	Missed Jogging- too tired	-----
Session 3- Saturday	Exercise Bike at Gym. (70% effort)	Quite easy to start with but my legs ached afterwards!

Week 5		
Session 1- Monday	Mild Jogging- (60% effort)	Listening to music again. Jogged with sister today.
Session 2- Wednesday	Swimming- 30lengths (75% effort)	Starting to get really boring now.
Session 4- Thursday	Jogging at Gym (65% effort)	A lot easier than it was.

Week 6		
Session 1- Monday	Swimming- 25lengths (60% effort)	Couldn't find the motivation
Session 2- Thursday	Swimming again- 28length (65% effort)	Swam for 30minutes today. Kept stopping.
Session 3- Saturday	Missed Gym- Too tired.	-----

It is important to progress your training because after six weeks your cardiovascular fitness would have improved. You must increase either the intensity of the training, the frequency of the training or the length of training sessions to keep pushing the body to its limits.

I did another recovery rate test and here are my results:

Minutes after Exercise	Pulse Rate
0	70
1	140
2	101
3	87
4	75
5	70

I'm positive my results were like this because of the six-week programme I did. I think the most effective part of my training was the swimming. Not only did it improve my fitness but has helped my tone up as well. I think the least effective part of my training was using the exercise bike at the Gym. This only worked out my legs and made me ache afterwards. This may have been because I didn't cool down properly afterwards or maybe because I wasn't used to exercising my legs so much. I will continue to swim once a week or maybe twice. I think I will jog occasionally as well because it helps relieve my stress. Swimming is a very good exercise to do for my chosen sport, Dance. It helps to tone my muscles and keeps me fit at the same time. Most strokes of swimming exercise all the muscles. This is good because I need strength in my muscles for dance. With jogging I have sometimes increased the training time. This has improved my stamina and now allows me to dance for longer periods of time. The whole project has been quite beneficial.