



Cardiovascular Training

Cardiovascular (cardio) training is, to those who don't know, the type of training you do on a treadmill, cross trainer, bike, rower etc. something where you are raising your heart rate for a period of time, to improve fitness and burn extra calories.

There are hundreds of different techniques when coming to do cardio work, so to know what type of cardio you should be doing we first need to understand what is happening in your body and then decide your exercise goals.

Inside our body we have two main forms of energy, FAT, which we have an abundance stored all over, and CARBOHYDRATE, which we store in our muscles. Due to the amount of fat we have on our body it would be extremely difficult, or should I say near impossible, to burn all your fat stores while exercising and if you did then you would die. Carbohydrate is slightly different, everyone differs with the amount of carbohydrate stored depending on many factors including gender, age, fitness levels, body type etc. but as an average, during normal daily activity, we have around 4 hours worth of carbohydrate stored, and during exercise, around 90 minutes worth. Burning carbohydrate as energy is very similar to using fuel from the tank on a car, and each muscle has its own carbohydrate fuel tank, once this energy has gone from that tank it cannot be borrowed from another. This is something that needs to be taken into account during any cardiovascular session because the higher the intensity of exercise the more carbohydrate you will burn.

To understand the implications of burning all your carbohydrate stores please read the '**diet**' article.

Now we understand the two main energy sources we will move on to understanding how we burn them.

All energy burned is measured in calories and this is the most common form that people understand. All food/nutrition contains calories and it is made up as follows:

| | |
|--------------|----------------|
| Fat | 9Kcal per gram |
| Carbohydrate | 4Kcal per gram |
| Protein | 4Kcal per gram |

Whilst exercising the intensity depends upon what type of calories you burn. High intensity exercise will burn large amounts of calories and these will be predominantly carbohydrate. Low intensity exercise will burn a low amount of calories, which predominantly will be fat. The reason for this is that fat must have enough oxygen to create the chemical process to burn efficiently, and when it doesn't your body will convert it to carbohydrate. You will notice this during exercise, as the intensity increases your breathing rate will also increase, which is your body saying it requires more oxygen and at this point you will begin to lean towards burning a higher percentage of carbohydrate as energy.

There is also a big difference between burning fat and becoming fitter. The idea of your cardio workout over time is to become fitter, the fitter you are the more fat you will burn during your workouts. Working at a higher intensity burning carbohydrate is called your cardio zone. It is called this because at these higher intensities you will raise your fitness levels over time. Working at a lower intensity is called your fat burning zone because that is exactly what it is. Please note that working in your fat burning zone will not make you fitter, and therefore not allow you to burn considerably more fat over a period of time.

To understand the exact points when your body will turn from fat burning to carbohydrate and the principals of becoming fitter please read '**heart zone training**'

Now we understand what energy we burn, how we burn it and which type of exercise burns what, I will explain a few types of cardio training. Please remember there are so many different ways to train and the best way to decide which one suits you depends entirely on fitness levels, your exercise goals and your personal preference, because as we know "**If your heads not happy it won't do it**"

LSDT Long Slow Distance Training

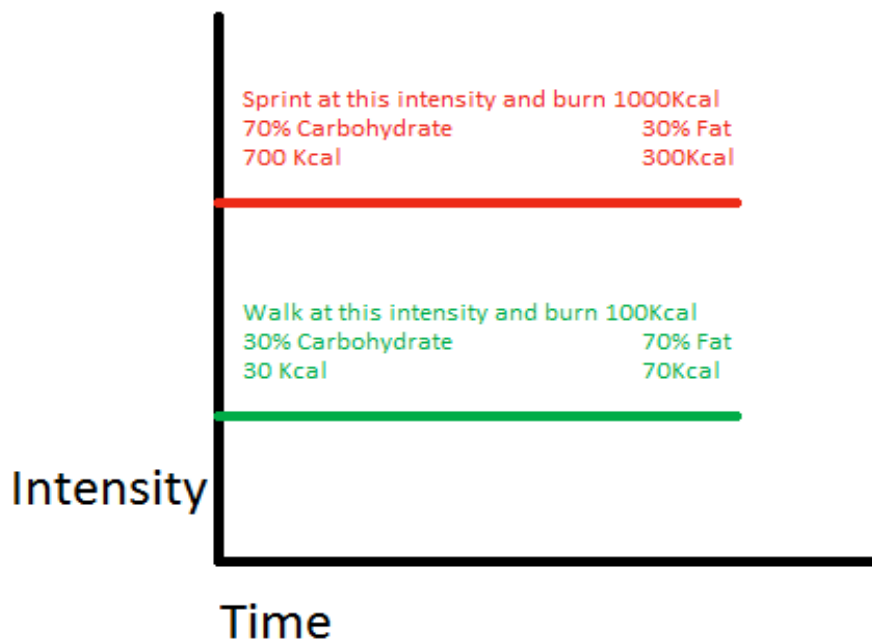
This type of training is exactly what it says, long and slow over a large distance. This type of training is excellent for beginners and anyone looking for efficient fat burning without overworking. LSDT consists of keeping your breathing at a lower rate so putting you in your fat burning zone this would typically involve a brisk walk, steady bike ride or low resistance on a cross trainer. The length of the workout would be anything from 30-60 minutes or even longer, again depending on relevant fitness levels. A beginner would be recommended to start at 30 minutes.

Interval

Interval training is one of the most effective ways to burn fat, and become fitter at the same time. Interval training is where you will work in your two different zones for a set period of time. At the beginning the ratio is normally 1:1 but over time these ratios can be adapted to incorporate cardio progression. If you were to work at a 1:1 ratio this would mean you work in your fat burning zone for 2 minutes and then move into your cardio zone for 2 minutes. You would then move back to your fat burning zone for 2 minutes and so on up to a maximum of 60 minutes. On your ratios the time in each zone is your decision, so you can work 1 minute and 1 minute or 5 minutes and 5 minutes on a 1:1 ratio.

Why does interval training burn so much fat?

Firstly take a look at this chart and I will explain.



On this chart please note that the amount of calories burned and percentages of calories are made up, and are rounded to make the explanation easier to understand. Calories burned and percentages of fat and carbohydrate vary from person to person.

On the chart we can see that walking, or staying in your fat burning zone, you will burn just 100Kcal and only 70Kcal of fat, but by sprinting you will burn 1000Kcal and 300Kcal of fat. The reason for this is, even though you are working in your cardio zone, a lower percentage of a high number i.e. 30% of 1000Kcal is better than a higher percent of a low number, 70% of 100kcal.

The only setback to this principle is you could not do your full cardio workout sprinting so we look at Interval Training. By doing this you will be getting the best of both worlds, you will be making yourself fitter by upping the intensity but when you drop the intensity down, to recover, you will be efficiently burning fat and, best of all, the overall amount of calories burned will be higher than just working in your fat burning zone so the percentage of fat calories will be higher than your cardio zone. You win both ways!!

Expletives

The name of this type of training is normally what will be coming out of your mouth when you finish! Expletives are the type of training favoured by performance athletes like Sir Steve Redgrave. They are not recommended to be done on a treadmill. My favoured piece of cardio equipment for these is a Concept 2 rower. This form of training works in a very similar way to interval training, the only difference being, when in your cardio zone you must go absolutely flat out, and when in your recovery as slow as you like, but don't stop. You will have at least twice as much time in your recovery zone as you do in your cardio zone. My preferred method is 30 seconds rowing flat out and 1 minute rowing as slow as you like and for a beginner you would only look at doing 4 or 5 intervals (trust me this is enough), and for the more experienced you know your limits. This form of exercise doesn't burn much fat at all due to the short amount of time you exercise for but is excellent for improving fitness levels so why not try include this into your regime once a week.

WARNING please seek advice from your doctor or your fitness instructor before carrying out this form of cardio workout due to the high intensity.

There you have three completely different ways of training. If you don't want to be specific with your training you can just opt for the good old random session as long as you are raising that heart rate up into your cardio zone and then allowing it to drop back to the fat burning zone for recovery, that's all that matters. Some people need structure, others need variety, only you can decide what suits you best.

If you would like any further options for your cardio workout please feel free to email us info@warehousefit.com and we would be more than happy to help.

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