



**TRAINING  
INFORMATION**

A close-up, low-angle shot of a person's legs in a gym. The person is wearing pink socks with black patterns and pink and orange sneakers. They are standing on a grey rubber mat. A black barbell with a weight plate is on the floor to the left. A red banner with white text is overlaid on the image.

# STRENGTH TRAINING

# BENEFITS

## STRENGTH



### Lowered blood pressure

In the long term, through lifting weights, you can reduce your blood pressure. Not only will you develop stronger more defined muscles, you will stimulate increased blood flow to the muscles you are using. As your muscles strengthen, it takes less work to make them contract, which reduces the work upon your heart. This lowers your blood pressure and resting heart rate. However, whilst you are exerting force through your blood pressure may temporarily rise. People with uncontrolled high blood pressure or significant heart problems should check with their doctors before starting a weight-lifting program.



### Increased bone strength

Lifting weights can aid in the increase of bone density which can help slow or reverse the effects of osteoporosis.



### Increased fat burning

Having more muscle mass improves fat-burning. Through building muscle mass this allows your body to burn fat more efficiently at rest.



### Better stability

Stronger muscles provide more stability, enhancing balance and developing stronger muscle.



### Improved daily activities

Lifting weights forces your muscles to work more efficiently. All activities we undertake some kind of physical movement. These movements include sitting, standing, running, walking, sleeping, lifting, pulling and other daily movements. Lifting weights can help you achieve proper execution of these complicated movements.



### Increased muscle mass

Weight lifting assists in reducing the speed of muscle loss (Sarcopenia) as you age. This loss of muscle can start as early as your twenties.

A group of people are participating in a high-intensity interval training (HIIT) session in a gym. They are using Concept 2 rowing machines. The gym has a dark floor and white walls. There are orange traffic cones and a red banner with the number '62' on the right. A man in a teal t-shirt with 'ATHLETE' and various logos on the back is in the foreground, looking towards the rowers. Other people are sitting on the floor or standing around the machines. The overall atmosphere is energetic and focused.

**HIIT**

**HIGH INTENSITY INTERVAL TRAINING**

# BENEFITS

## HIIT



### Helps build endurance

High intensity training adapts to the cellular structure of muscles which enables you to increase your endurance while doing any type of exercise. “Journal of Physiology,” posted a study where people participated in HIIT for eight weeks and the results showed that they had doubled the length of time they could ride a bicycle while keeping the same pace.



### Burns calories and fat in a shorter period of time

HIIT is great if you have a limited amount of time to work out. Studies show that 15 minutes of high intensity interval training burns more calories than jogging on a treadmill for an hour.



### Effective energy use

HIIT uses a system of work-hard-then-recovery intervals, alternating between high intensity workouts with short resting periods. Through interval training your body learns how to efficiently use the energy that comes from your body’s energy system. HIIT also helps remove toxic wastes from your muscles during the resting periods. Alternating between the exercises also helps you breathe effectively



### Boosts metabolism

The American College of Sports and Medicine said that High Intensity Interval Training helps you consume more oxygen than a non-interval workout routine. The excess amount of oxygen consumed helps increase your rate of metabolism from about 90 minutes to 144 minutes after a session of interval training. Thus the increased metabolism helps burn more calories at a faster rate.



### Burn calories and fat hours after you leave the gym

When participating in such high intensity workouts your body’s repair cycle goes into hyper drive. This means in 24 hours after a HIIT workout your body is still burning calories and fat whereas in steady-pace workouts, you may not.



### No equipment necessary

HIIT workouts are extremely cost efficient because you need zero equipment! All you need is a little open space. HIIT workouts utilize your own body weight, so any workout that gets your heart rate up quickly such as plyometrics, high knees and jumping jacks can be implemented into a HIIT workout. In fact, weights can actually make sometimes make the workout less effective because your main focus in HIIT is getting your heart rate up rather than toning a particular muscle group.



### **Lose fat and not muscle**

Steady cardio is often associated with losing muscle. HIIT workouts, however, combine weight training (the weight being your body) and effectively allows dieters to preserve their muscle gain while still shedding weight.



### **Choose your own workouts**

The great thing about High Intensity Interval Training is that you don't have to limit yourself to just running or biking. In fact, you can pick any cardio workout and make it an interval workout. You can bike one day at max speed for 30 seconds and take 45 second intervals in between and the next day you can switch it up to jogging or aerobics.



### **Good for heart health**

They say that extreme training helps build extreme results. It's hard for most people to push themselves to an anaerobic zone where you lose your breath and feel your heart pounding faster and faster. With interval training it's easier to push yourself to that level because of the rest interval that comes right after you reach that point. This helps keep a healthy heart and helps blood flow effectively throughout your whole body.



### **Challenging**

HIIT workouts offer seasoned workouts a new challenge and beginners a quicker way to see results. You are constantly pushing yourself out of your comfort zone therefore you can never get bored with your workout!





**PLYOMETRIC**

# ABOUT

## PLYOMETRIC

**Plyometric training consists of quick, explosive movements designed to increase speed and power.**

This can be achieved through performing multiple exercises that focus on training our bodies and brains to activate more muscle fibres, more quickly, in order to increase the efficiency and speed of our muscle contractions. Doing so will ultimately increase our power. The stretch-shortening cycle (SSC), which is the basis of all plyometric exercises.

Plyometric training focuses on increasing muscular power and explosiveness through exercises designed to make the stretch-shortening cycle happen as quickly as possible.



In most dynamic movements the muscle is first stretched (eccentrically) before it contracts (concentrically).

For example, if you do a dip before a vertical jump, your centre of mass will be lowered quickly and in so doing your muscles will be stretched. Any muscle that is stretched prior to a concentric contraction will always contract with more speed and force. This eccentric-concentric coupling is referred to as the SSC, and together it produces a more powerful contraction than that which would result from a purely concentric action alone.

ELITE ATHLETIC PERFORMANCE)



# BENEFITS

## PLYOMETRIC



### **Strengthens fast-twitch fibres in the muscles**

The goal of Plyometrics is to maximise muscle contraction, quickly, which essentially means that a by-product of plyometric training is that you will develop power. Obviously having a high level of physical power is desirable in athletics but in order to increase your power, you need to increase and strengthen the muscle fibres that are responsible for converting strength into speed. Fittingly, these fibres are referred to as fast-twitch fibres, and plyometric training can strengthen them and increase the ratio of fast-twitch fibres to slow-twitch in your body. The stronger the fast-twitch fibre, the faster the muscle contraction—which leads to an increase in power.



### **Increases the strength of tendons, which means fewer injuries**

In order to assist your muscle fibres in producing power, you need to increase the strength of your tendons. Furthermore, stronger tendons mean fewer injuries. Plyometrics strengthen the tendons and improve their elasticity by placing stress on them in a controlled setting. There are numerous studies that support the use of plyometric and dynamic stabilization/balance exercises in neuromuscular training to alter movement biomechanics and reduce ACL injury risk.



### **Boosts the efficiency of the neuromuscular system**

The stretch-shortening cycle is called into action every time there is a rapid stretching of the muscle spindles. When this happens, a signal is sent from your brain to your muscles via your neuromuscular system. The more efficiently your neuromuscular system can transmit this signal, the faster you can contract and relax your muscles, which in turn increases your speed and power. Plyometric training improves the efficiency of this system.



### **Develops your abilities in other exercises and sports**

With great power, comes great...performance. All the previous benefits of plyometric training listed above has made it an attractive addition to many an athlete's training program - especially for those whose sports require explosive movements. A perfect example is Olympic Weightlifting. A sport that requires an athlete to move heavy weight quickly in a short period of time, placing enormous strain on tendons and requiring a huge amount of power from their muscles. Exercises like depth jumps and vertical jumps are biomechanically similar to weightlifting movements, in so far as they are bilateral (double legged), recruit the same major muscles and joints; have similar range of motion at the active joints and similar timings of muscular activation.



**Plyometrics can help to decrease the time it takes for a lifter to reach maximum force and improve their power output**

In addition a study in the Journal of Strength & Conditioning Research found that a combination of squat and plyometric training provided a significant increase to hip and thigh power production, resulting in a greater increase to vertical jumping ability than could be achieved from training solely with one program or the other



**Plyometric training is beneficial in endurance events as well**

A study in the Journal of Strength & Conditioning Research found that a group of male runners who completed six weeks of plyometric training significantly reduced lower leg stiffness, resulting in improved running economy over 3 kilometres.



**LISS**

**LOW INTENSITY STEADY STATE**

# ABOUT

## LISS

HIIT is extremely taxing on the central nervous system, but there is another option for burning fat while still getting conditioned.

**LISS (Low Intensity Steady State) enables you to burn some calories**, helps your body recover from hitting the weights or other HIIT sessions throughout the week and works your cardiovascular system within one workout session.

**LISS is typically performed for a steady pace** over a duration of 30-60 minutes with 30 minutes being the absolute minimum. Fat burning can occur once you hit the 20-minute mark, but overall conditioning of the heart and cardiovascular system doesn't occur until you get up past constant movement of at least half an hour. Unlike with HIIT cardio, there is absolutely. LISS cardio is continuous work for a long period.

With a typical LISS routine, the majority of the calories burned will all be within the time frame of you actually exercising. So if you're trying to "burn off" some extra calories LISS can be beneficial.



# BENEFITS

## LISS



### Enhanced heart function

Your body is under constant work for at least 30-40 minutes and forces your heart to pump a strong, steady pace that will help with overall blood flow and even respiratory health.



### Easily accessible at every fitness level

It can be completed easily with very little to no equipment, anyone can open up their front door and go for a long walk, and most people can handle a light jog. The intimidation factor is gone.



### Places less stress on the body

In comparison to a typical HIIT workout, which could involve high impact jumping, running, cutting and lifting. This is hard on your tendons and joints and over time will be harder and harder to recover fully if no breaks are taken from this type of work. With LISS, you can essentially perform it every single day if you choose. Whatever exercise you pick, whether it be biking, walking or swimming, are all extremely low impact and not hard on the physical part of the body. This part allows you to recover from weight lifting sessions as well as burn additional calories instead of taking a day off completely from the gym.



### Great for recovery

If you have had a few tough training sessions during the week, adding in another HIIT or resistance session may not be the best idea for your body. Low-intensity cardio can be a great way to still fit exercise in because it is low impact. This means that you are unlikely to impede your recovery by training over the top of sore muscles. LISS can actually help to increase blood flow to damaged muscles and help reduce post-workout stiffness.



### Helps to burn fat

Training at a lower intensity means that more oxygen is available to your body. As fat needs oxygen in order to be broken down, the more oxygen you can give your body, the more fat you may be able to burn.

To find out more please contact [info@sperofit.co.uk](mailto:info@sperofit.co.uk)



[sperofit.co.uk](http://sperofit.co.uk) | 07123456789