Exercise and Your Heart: What It Does, How Much You Need, and How to Start

Of all the things you can do for your health, regular exercise is probably the single most powerful. It protects your heart, lowers your risk of diabetes, dementia, stroke and several cancers, lifts your mood, and helps you live longer and better. Best of all, the benefits begin immediately — you don't need to be an athlete, and you don't need to wait years to feel the difference.

This article explains what exercise does inside your body, how much you actually need, what we can learn from elite athletes, and the practical steps to make it stick.

What Exercise Does for Your Cardiovascular System

Your heart is a muscle. Like any muscle, it responds to the demands placed on it. When you exercise regularly, several changes happen:

It lowers blood pressure. Regular activity helps keep your arteries flexible and blood flowing smoothly, reducing the strain of high blood pressure on your heart and kidneys.

It improves your cholesterol profile. Exercise raises HDL ("good") cholesterol and helps lower LDL ("bad") cholesterol.

It strengthens the heart muscle itself. A trained heart pumps more blood with less effort. This improved efficiency is why fit people often have a slower resting pulse.

It helps with weight management. Activity burns calories and builds muscle, both of which make a healthy weight easier to maintain.

It reduces inflammation. Physical activity lowers inflammatory markers in the blood — a key factor in the development of heart disease and other chronic conditions.

The science underneath

Three mechanisms explain much of the benefit:

- **Better endothelial function.** The endothelium is the delicate inner lining of your blood vessels. Exercise improves how well it works, which means your vessels dilate more readily and blood flows more freely.

- **New blood vessel growth (angiogenesis).** Regular activity encourages the body to build new small blood vessels, improving circulation and the delivery of oxygen and nutrients to your tissues.
- **Improved cardiac efficiency.** With training, your heart does more work per beat, so less effort is needed for the same output.

It isn't only about the heart

The evidence here is broad and consistent:

- An overview of Cochrane systematic reviews found that physical activity reduces the risk of death from any cause by around 13%, while also improving quality of life, reducing pain and improving physical function — in healthy people and in those living with medical conditions.
- Research published in *Nature* has shown that endurance exercise triggers a molecular response across multiple organ systems, improving muscle function, cardiovascular health and metabolism together.
- A large review in the *British Journal of Sports Medicine* found physical activity to be highly effective for symptoms of depression, anxiety and psychological distress — with benefits reported as substantially greater than those seen with counselling or medication alone in the studies reviewed. Notably, higher-intensity exercise over shorter durations produced some of the largest effects.
- The same review found meaningful mental health benefits in specific groups, including people with depression, pregnant and postnatal women, and people living with HIV or kidney disease.

One more point that is easy to overlook: loneliness carries real health risks, including an increased risk of heart disease. Exercise that involves other people — a walking group, a class, a club — addresses two problems at once.

How Much Do You Need?

The guidelines are more achievable than most people expect:

> **At least 150 minutes of moderate-intensity activity per week, or 75 minutes of vigorous-intensity activity.**

Moderate intensity means you can talk but not sing — brisk walking, cycling, swimming, gardening. Vigorous means you can only manage a few words at a time — running, fast cycling, competitive sport.

That's about 30 minutes, five days a week. It doesn't have to be done in one go: three ten-minute walks count just as much as a single half-hour session.

Understanding Heart Rate Zones

If you want to train more deliberately, heart rate zones are a useful tool. They describe different levels of intensity, and each serves a different purpose:

Zone	Intensity	Best for
1	Very light	Warm-ups and cool-downs
2	Light	Building endurance and aerobic base
3	Moderate	General cardiovascular fitness
4	Hard	Increasing anaerobic capacity
5	Maximum	Peak performance and speed

Using zones helps you train at the right intensity for your goal, track your progress over time, and — importantly — avoid the trap of doing every session too hard, which leads to fatigue and overtraining.

What We Can Learn from Elite Athletes

The athlete's heart

Athletes who train intensively and consistently develop what cardiologists call the **athlete's heart** — a set of normal, healthy adaptations to sustained training:

- **Increased heart size.** The heart muscle, particularly the left ventricle, becomes larger and stronger, allowing it to pump more blood with each beat.
- **Higher cardiac output.** The heart can move more blood per minute, sustaining hard physical effort.
- **Lower resting heart rate.** A more efficient heart needs fewer beats at rest — a recognised marker of cardiovascular fitness.

- **Greater stroke volume.** More blood is ejected with each beat, delivering more oxygen to working muscles.

These changes are the cardiovascular equivalent of the muscle growth you see with weight training.

Training methods worth borrowing

You don't need an Olympic schedule to use the principles behind one:

Interval training. Alternating short bursts of harder effort with periods of easier recovery improves cardiovascular efficiency and raises VO2 max — the maximum amount of oxygen your body can use during intense exercise. High-intensity interval training (HIIT) can improve fitness more efficiently, minute for minute, than steady-state cardio.

Balancing aerobic and anaerobic work. Longer, steadier efforts (running, swimming, cycling) build endurance; shorter, harder efforts and strength training build power. Doing both produces a more robust cardiovascular system than either alone.

Periodisation. Elite athletes plan training in cycles of varying intensity rather than going flat out year-round. Applied to ordinary life, this simply means building in easier weeks — it prevents overtraining, reduces injury risk and produces better long-term results.

Cross-training. Varying your activities reduces repetitive strain injuries, keeps things interesting, and develops fitness more evenly.

Getting Started — and Keeping Going

Start small. Ten minutes of brisk walking is a real beginning. Increase duration and intensity gradually as your fitness improves. Starting too hard is the most common reason people stop.

Choose something you actually enjoy. Dancing, swimming, cycling, a racket sport, walking the dog. Enjoyment predicts adherence far better than discipline does.

Build a routine. Exercising at roughly the same time each day turns effort into habit. Consistency matters more than any individual session.

Mix it up. Varying your workouts keeps you engaged and works different muscle groups.

Make it social. Exercise with friends or family, or join a local group. Social support genuinely improves motivation — and adds the mental health benefit of connection.

Plan around your obstacles. Identify what is most likely to derail you and solve it in advance. Short on time? Break the session into two shorter ones. Dark evenings? Move it to the morning.

Track progress and reward yourself. Set realistic goals, note your improvements, and celebrate them. Positive reinforcement helps a new habit take root.

Listen to your body. Some muscle soreness is normal. Chest pain and unusual breathlessness are not.

When to See a Doctor

Exercise is safe for the vast majority of people, but some symptoms always need assessment rather than pushing through. **Speak to a doctor if you experience any of the following during or after exercise:**

- Chest pain or tightness
- Shortness of breath out of proportion to the effort
- Dizziness or light-headedness
- Palpitations, or a racing or irregular heartbeat
- Fainting or near-fainting

Fainting during exercise, in particular, should always be investigated.

There is also an important distinction between the healthy adaptations of the athlete's heart and genuine heart muscle disease, which can look similar on some tests. If you have a **family history of sudden cardiac death, cardiomyopathy or inherited heart conditions** — especially if you are training seriously or competitively — you should be assessed in a specialist cardiomyopathy or inherited cardiac conditions clinic before intensive training.

If you have an existing heart condition, are on cardiac medication, or have been inactive for a long time, have a conversation with your doctor about a sensible starting point. In almost every case the answer is not "don't exercise" — it is "here's how to do it safely."

The Bottom Line

Exercise is the most effective preventive treatment available, and it is free. It protects your heart, your brain, your metabolism and your mood, with benefits that begin the same day you start and compound over a lifetime.

Start where you are. Build slowly. Stay consistent. And if something doesn't feel right, get it checked.

This article is for general information and does not replace individual medical advice. If you have an existing heart condition or new symptoms, please speak to your GP or cardiologist.