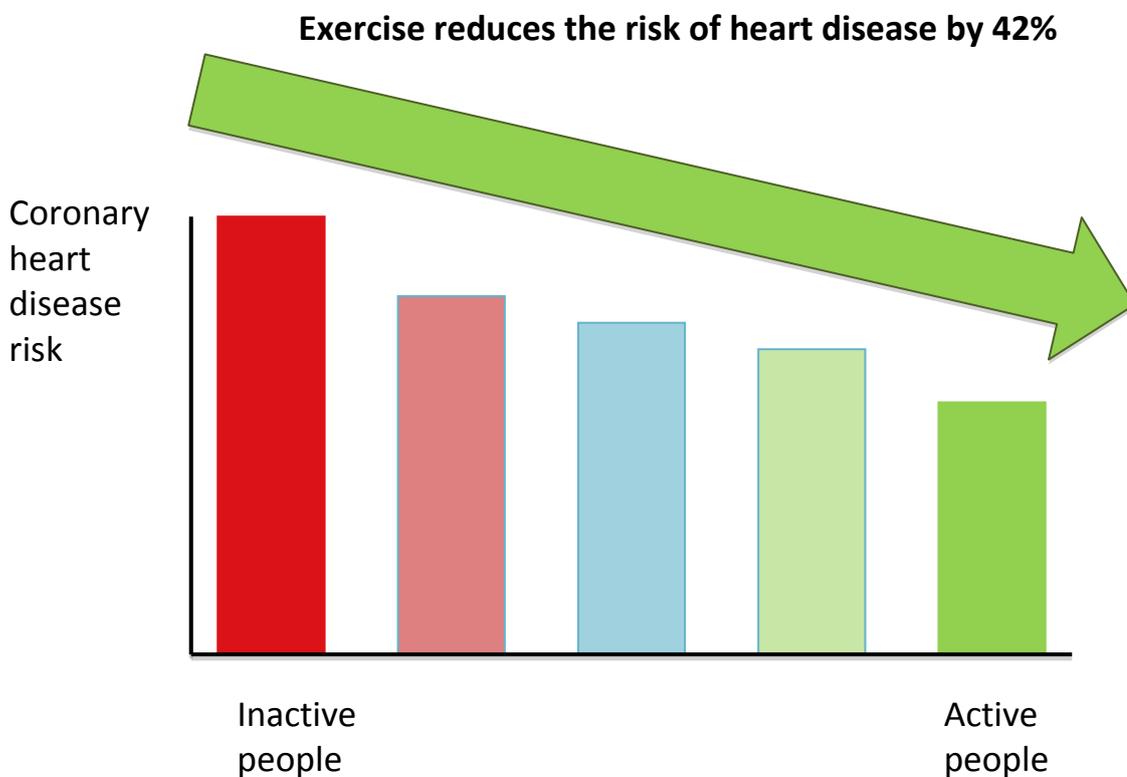


## Cardiovascular disease

There are very few reasons why anyone with cardiovascular disease (including those with heart problems, stroke and vascular disease) cannot be physically active. For the vast majority, exercise is safe and beneficial.

### Prevention

Regular physical activity reduces your chance of having a heart attack, stroke, kidney problems and problems with your blood vessels. For heart disease the risk can be reduced by over 40% ([Woodcock et al., 2011](#))



Exercise lowers bad cholesterol (triglycerides and LDL) and raises good cholesterol (HDL) by up to 30% each depending upon how active you are ([FYSS 33](#)). This reduces your chance of suffering a heart attack or stroke.

If you already suffer from cardiovascular disease, your chance of dying from further complications of the disease is reduced by 20-35% if you start exercising regularly ([SASA](#)).

## Treatment

Undertaking a cardiac rehabilitation programme after a heart attack reduces your chance of further heart attack, further hospital attendance, disability and premature death ([FYSS 21](#)).

If you have heart failure, exercise can improve the distance you can walk, your general quality of life, whilst reducing the chance of needing to go to hospital ([ESoC 2011](#); [NICE](#)).

In patients with Stroke, exercise therapy has been shown to improve walking, balance, confidence, ability to do routine activities needed for independent living and general quality of life ([Stoller 2012](#); [Cochrane 2013](#)).

In peripheral vascular disease, exercise improves the distance you can walk before having to stop and helps you walk faster. It also reduces pain levels, the chance of foot infection or amputation and death rates ([Cochrane 2014](#); [Gupta 2014](#); [Parmenter 2015](#)).

## Comparisons

Exercise is often as good, if not better, than medications in reducing your chance of cardiovascular disease. ([Naci 2013](#))

Statins reduce your chance of heart disease by 24%. Exercise reduces your chances by 40% - almost twice the benefit without any of the side effects ([Jacques 2012](#)).

If you suffer chest pain from furred up arteries, the chance of being alive in 12 months time is higher by exercising regularly than if you have an operation to open up the artery with a stent (88% exercise vs. 70% with a stent). ([Hambrecht 2004](#))

Exercise significantly reduces the chances of you dying following a stroke, whereas blood-thinning agents (including aspirin and warfarin) do not. ([Naci 2013](#))

Exercise is cheap! ([Fidan 2007](#))

Treatment for secondary prevention	Cost of adding 1 year to someone's life
Aspirin/B-blocker	<£1000
Cardiac rehabilitation	£1957
ACE inhibitor	£3398
Statin	£4246
Heart bypass	£3239-4601
Balloon stent	£3845-5889

## Advice

Aim to exercise at moderate intensity daily (gets your heart and breathing rates up enough that you can just still talk); if you are just starting to exercise build up slowly.

If you want to lower your cholesterol, aim to exercise continuously for 45 minutes at a time.

If you have heart disease it is advisable to have a medically supervised exercise test prior to starting an exercise programme. ([BACPR](#))

If you have a pacemaker with a defibrillator in (ICD) you should avoid swimming.

If you have had a stroke make sure you are exercising in a safe environment as you are three times more likely to fall or suffer a fracture ([FYSS 47](#))

Wear supportive, well fitting shoes and check your feet routinely if you have peripheral vascular disease.

## Further resources for Healthcare Professionals

[Motivate to Move – Cardiorespiratory Health](#)

[FYSS](#)