

## Steps towards a healthy heart

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The life expectancy of people with HIV living in developed countries is fast approaching general population norms. We know this is a result of better treatments. But this optimism is tempered by a range of other conditions that are appearing as [PLHIV](#) [1] Person (or people) Living with HIV. This term is now preferred over the older PLWHA. get older and live longer.

One issue that is getting a lot of attention these days is cardiovascular disease (CVD). Several large international studies have shown that PLHIV are one and a half to two times more at risk of getting CVD than HIV negative people. While trying to understand what might be driving this elevated risk, researchers have reached a number of conclusions.

Firstly, certain HIV treatments are associated with an immediate elevated risk of CVD. This risk has been well studied and doctors are now able to keep patients off these drugs if necessary.

Secondly, many of the risks associated with CVD in the general population – such as smoking, elevated [cholesterol](#) [2] An essential component of cell membranes and nerve fibre insulation, cholesterol is important for the metabolism and transport of fatty acids and the production of hormones and Vitamin D. Cholesterol is manufactured by the liver, and is also present in certain foods. High blood cholesterol levels have been linked to heart disease and may be a side effect of some anti-HIV medications. or hypertension – are widespread among PLHIV.

Thirdly, HIV itself seems to play a role in elevating cardiovascular risk. It is clear from studies that compare PLHIV on treatment with those who are not, that uncontrolled [virus](#) [3] A small infective organism which is incapable of reproducing outside a host cell. is a significant risk factor for heart disease.

But even among people taking treatment the risk is still elevated. The reasons for this are not entirely clear but some researchers have speculated that even very low levels of viral activity, below what is detected by the [viral load](#) [4] A measurement of the quantity of HIV RNA in the blood. Viral load blood test results are expressed as the number of copies (of HIV) per milliliter of blood plasma. test, may induce an inflammatory immune response that, over many years, can exacerbate such conditions as hardening of the arteries.

Setting HIV aside for the moment, what are the major risks for cardiovascular disease? They fall into two main categories: those we can't control and those we can.

The three uncontrollable risks are age (risk increases as we get older), male sex and family history or genetics.

The risks that we can influence are abdominal obesity, elevated cholesterol, hypertension ([high blood pressure](#) [5] Persistently high blood pressure, an outwardly symptomless condition which carries an increased risk of serious illnesses such as stroke, heart disease and heart attack.), [diabetes](#) [6] [Diabetes mellitus] A disorder in which sugars in the diet cannot be metabolised into energy due to a lack of the enzyme insulin. Late-onset diabetes mellitus may be a long-term side effect of some anti-HIV drugs., smoking and depression. This seems like a daunting list, especially when we consider that modern life seems to drive so much of it, but the fact we can act to reduce the risk is part of the good news and making a few simple changes can have an impact on multiple risk factors.

Let's look at each risk in more detail.

### ABDOMINAL OBESITY

Abdominal obesity (carrying extra weight around the gut) is more of a risk for CVD than carrying it elsewhere. Unfortunately, this is a particular problem for men, who typically put on abdominal weight as they age leading to the common potbelly. It's recommended that men try to keep their waist circumference below 94cm and women below

80cm. Another way to think about weight is using the Body Mass Index (BMI) which should be between 18 and 25. You calculate your BMI using the following formula: weight (kgs)/height (m)<sup>2</sup>.

## **CHOLESTEROL**

Cholesterol is measured using a blood test. If your cholesterol is high, there are a number of strategies available depending on how high it is and whether you have other risk factors. A healthy diet low in saturated fats is a good start and fish oil capsules have also shown to be a benefit. For some people drugs called statins may be prescribed to lower cholesterol.

## **BLOOD PRESSURE**

Blood pressure, when elevated places stress on the heart and the arteries that supply blood to the heart. Over time this increases the risk of [heart attack](#) [7] A life-threatening emergency in which the blood supply to the heart is suddenly cut off, causing the heart muscle (myocardium) to die from lack of oxygen.. Reducing salt in your diet is a good way to start controlling blood pressure as is maintaining a healthy weight, taking regular exercise and limiting alcohol consumption. If these things don't lead to a reduction then medications are available.

## **DIABETES**

Diabetes is an intolerance to sugar in the blood and must be diagnosed using a blood test. Diabetes can be improved through various lifestyle measures including healthy eating, weight control and smoking cessation. In more serious cases insulin therapy may be recommended.

## **SMOKING**

Smoking is a wellunderstood risk for CVD and can also exacerbate many of the other risk factors already mentioned. The benefits of smoking cessation are widely known and support is available to quit from doctors, AIDS Councils and PLHIV organisations.

## **DEPRESSION**

Last but not least, psycho-social factors such as depression are now recognised as independent risks for CVD. Allowing depression to go untreated can be both emotionally and physically damaging. A combination of counselling and antidepressant medication seems to work best for most people with depression. Talk to your doctor about the options.

In looking at these different risks and thinking about how to address them it's important to know one thing. Cardiovascular risks multiply one another, they don't just add to each other. That means that if you have three or more risks your total risk of CVD is exponentially higher than if you only have one. That's the bad news; but the good news is that by addressing one or two risks you get a significant reduction in your total risk.

Given that having HIV is roughly equivalent to the risk of smoking it pays to come to grips with this issue. There are a number of common themes here: diet, exercise and smoking. What's recommended is a diet low in saturated fats, salt and sugar, with plenty of fresh fruits and vegetables and limited processed foods.

**Half an hour a day of moderate exercise such as brisk walking will fulfil the exercise recommendations, and more than ever it's time to think about quitting the cigarettes.**

What works for most people and tends to be sustainable are small regular steps in the right direction rather than dramatic diets or exercise regimes. Likewise with smoking, using nicotine replacement therapy for several months is more likely to succeed than going cold turkey.

Last but not least, if you are over forty make sure you get an assessment from your doctor that includes family history, blood pressure and cholesterol. Knowing your level of risk is the first step towards reducing it and taking small steps that work for your lifestyle is better than doing nothing.

Don't let the fitness and diet fanatics daunt you. Develop some habits that are achievable and enjoyable and the pay-off in quality of life will be significant.

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- [living with HIV](#)
- [Treating HIV](#)
- [healthy living](#)
- [heart disease](#)

### Links:

[1] <http://www.napwa.org.au/glossary/term/689>

[2] <http://www.napwa.org.au/glossary/term/88>

[3] <http://www.napwa.org.au/glossary/term/125>

[4] <http://www.napwa.org.au/glossary/term/416>

[5] <http://www.napwa.org.au/glossary/term/98>

[6] <http://www.napwa.org.au/glossary/term/95>

[7] <http://www.napwa.org.au/glossary/term/103>