

# HIV infection doubles risk of heart disease, global study finds

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People infected with HIV are twice as likely to suffer from heart disease, research has found.

Analysis of global figures reveals that HIV-associated [cardiovascular disease](#) has more than tripled in the past 20 years as more people are living longer with the virus.

The greatest impact is in sub-Saharan Africa and Asia Pacific regions, with Swaziland, Botswana and Lesotho particularly affected.

Researchers say the findings will help to target treatments to people facing the greatest risk, helping to maximise resources in countries with limited healthcare funding.

An international team of experts, led by the University of Edinburgh, reviewed studies from 153 countries to determine the rate of heart [disease](#) in people living with HIV.

They also calculated the number of years lost as a result of death or ill-health in each country to measure the disease's global impact—or so-called health burden.

The research, which included studies with almost 800,000 people, found the risk of cardiovascular disease among people living with HIV was double the rate among uninfected people.

More than two-thirds of the burden of HIV-associated heart disease was found in sub-Saharan Africa and Asia Pacific regions, the study found.

In some parts of the world, HIV ranks alongside better-known risk factors—such as diet and lifestyle—as a major cause of heart disease.

There are more than 35 million people infected with HIV worldwide, a figure that is steadily increasing. Those infected are now more likely to die from chronic diseases, such as cancer or cardiovascular disease, because life-saving medications can keep the virus in check.

The link between HIV and heart disease is poorly understood. Scientists think the virus may cause inflammation of blood vessels, which puts pressure on the cardiovascular system.

The virus is also thought to raise fat levels in the blood and affect the body's ability to regulate sugar levels, which may also contribute to [heart disease](#).

The study, published in *Circulation*, was funded by the British Heart Foundation.

Dr. Anoop Shah, Clinical Lecturer in Cardiology at the University of Edinburgh, said: "This study has important implications when planning cardiovascular preventative policies in low resource countries where the burden of HIV remains high and that of cardiovascular disease is growing."

Professor Jeremy Pearson, Associate Medical Director at the British Heart Foundation, said:

"We now have clear evidence that your risk of [heart](#) and circulatory disease is doubled if you have HIV. This news will have major public

health implications globally, but particularly in developing countries in Africa where the burden of HIV is higher.

"The effects of one disease on another are often poorly understood. But, with an ageing population, the number of people living with more than one disease will continue to rise. It's essential we build our understanding of the interplay between conditions so we can give patients the best treatments and advice."

**More information:** Anoop S. V. Shah et al, Global Burden of Atherosclerotic Cardiovascular Disease in People Living with the Human Immunodeficiency Virus: A Systematic Review and Meta-Analysis, *Circulation* (2018). [DOI: 10.1161/CIRCULATIONAHA.117.033369](https://doi.org/10.1161/CIRCULATIONAHA.117.033369)

Provided by University of Edinburgh

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