

# Your eyes may be a window to heart disease

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For centuries eyes have been seen as windows to the soul. But medical researchers now believe the eyes may also offer vital clues to your risk of heart disease and stroke.

Importantly, this research could lead to optometrists and ophthalmologists playing a key diagnostic role in identifying signs of life threatening health problems.

Researchers at the Centre for Eye Research Australia (CERA) are seeking to confirm that blood vessels in the retina at the back of the eye reflect changes in blood vessels in other parts of the body, especially the brain, kidneys and [heart](#).

A project funded by the MBF Foundation is showing that blood vessels in the retina can be photographed and the images analysed by a computer to accurately determine a person's risk of heart attack or stroke - cardiovascular diseases that change the appearance of [blood vessels](#) in the eye.

Lead CERA researcher, Professor Tien Wong, said they aim to show that combining this non-invasive retinal scan with the results from current risk assessment methods will improve precision and reliability in predicting [cardiovascular disease](#).

Professor Wong's team has taken thousands of [eye](#) images and created a program that recognises common features of conditions that cause damage to be seen on the retina.

Once a person has symptoms of cardiovascular disease, damage has already been done to the body. So finding and treating high risk people early, even before they have symptoms, could minimise blood vessel damage and potentially avoid heart attack or stroke.

Currently, doctors estimate a person's statistical chance of developing cardiovascular disease by looking at individual factors such as whether they smoke, their family history, weight, blood cholesterol and blood pressure. Once you get symptoms, more extensive and sometimes invasive tests, such as angiogram are needed to confirm the result and assess severity of damage to the [arteries](#) of the heart or elsewhere.

Professor Wong said, "Results from the retinal scan would be delivered to GPs for a better picture of their patient's health.

"The test is simple, has no side effects or risks, which are present for invasive tests like angiograms, and will result in more targeted preventive measures."

Dr Christine Bennett, chair of the MBF Foundation Steering Committee and Bupa Chief Medical Officer, went on to say, "This early assessment of the likelihood that a person will develop diseases like heart disease, stroke or even type 2 diabetes has the potential to significantly improve quality of life, reduce hospitalisations and the 50,000 deaths each year caused by cardiovascular disease."

Once a person knows their risk they may be able to delay the onset of developing [cardiovascular disease](#) by modifying their lifestyle accordingly.

"We know that smoking, too much alcohol, inactivity and poor nutrition are bad for our health but seeing the evidence not with, but in, your own eyes could be the wake-up call that triggers change," Dr Bennett said.

"A range of locations, such as optometrists, ophthalmologists, pathologists and GPs will be assessed to find the best way to make this test accessible to as many at-risk Australians as possible."

Source: Research Australia ([news](#) : [web](#))

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