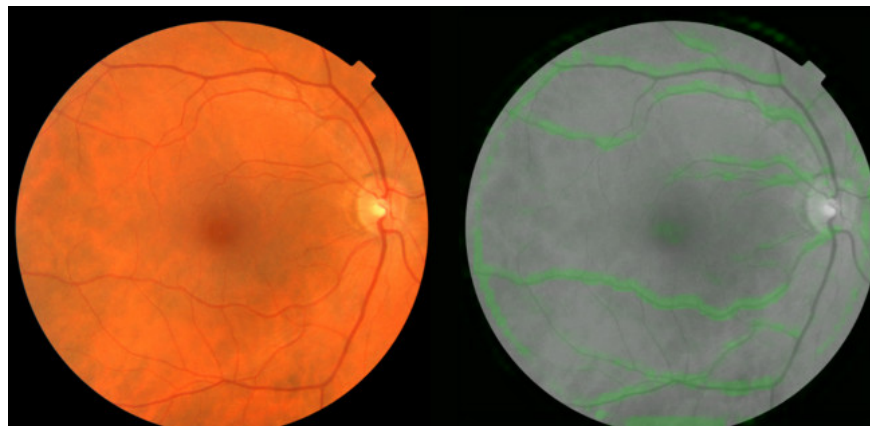


Google AI can diagnose a patient's cardiovascular condition by scanning the retina image

Can Google AI diagnose a patient's cardiovascular condition by scanning the retina image? Please join us to find out more in the article below!

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Although the idea of looking into the eyes of people to assess **cardiovascular health** may sound wild, researchers at Google have recently succeeded in using artificial intelligence to diagnose serious diseases: patients with heart attack or stroke. Researchers have made these decisions based on the patient's retinal image examination.



Specifically, the bottom of the eye is full of blood vessels that reflect the overall health of the patient. How to study the image of this circuit system with cameras and microscopes helps doctors to predict the situation of patients, from blood pressure, age, to smoking habits, drinking alcohol, . from It gives an opinion about cardiovascular health.

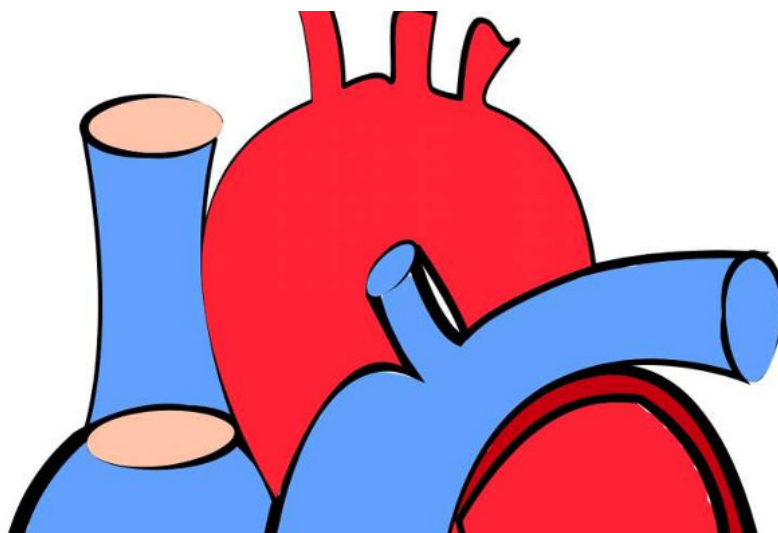
Google published their findings in the journal Nature Biomedical Engineering, which says a method that is similar to the traditional method that requires blood testing. However, Google also said that this method needs research time to improve.



According to the technology giant, previous medical findings have revealed some links between retinal vascular manifestations that indicate the risk of a dangerous heart attack. With patients' retinal imaging-based data, Google said it could predict 70% of the correct time within 5 years of patients who would have a heart attack or related diseases and which patients did not. These results are entirely consistent with conventional testing methods that require blood collection to measure a patient's cholesterol level.

Google used models based on data from 284,335 different patients and was confirmed on two independent data sets of 12,026 patients and 999 patients.

Lily Peng , a medical doctor and leading researcher of the project, said: *' The first thing is that we tested on a small set of data. We believe that the accuracy of the diagnostics AI offers will be increasingly improved upon receiving more comprehensive data. Although the results are quite positive and positive, this AI technology is only in its first stage of development. We need to conduct research and development in more patient groups before we can officially put it into mass use . '*



Peng also said Google was surprised at the result. Her team worked to predict eye disease, then expanded by predicting from the image whether or not they smoke or have blood pressure. This leads to the discovery of the

ability to predict patients at risk of heart attack.

Researchers can track the factors that this algorithm uses to make a diagnosis based on the heat chart it generates during operation. For example, in the case of cardiovascular diagnosis, Google's AI system primarily focuses on analyzing data from blood vessels, thereby calculating the patient's blood pressure.

Further research will help researchers to accurately predict and help reduce a lot of cases of patients with heart attacks or strokes.



The question now is how long will that process take? Peng said it would take several years for researchers to find a way to use it effectively.

Peng is also optimistic that artificial intelligence can be applied in other areas of scientific discovery, including cancer research.

Medical discovery is often done through what is thought to be a sophisticated form of "guessing and trying," as in developing hypotheses from observation; Then design and run experiments to test them. However, monitoring and quantifying relationships with medical imagery can be a challenge, according to Google, because there are many features, patterns, colors, values ??and shapes in images. reality.

Peng said: '*I am very pleased by the meaning this discovery has brought. We hope that researchers elsewhere will continue to develop based on these findings*'.

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