Detecting many genes involved in a good immune response to flu vaccines

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The findings, published in the journal Science Immunology, point to a new prospect that uses genetic constructs to predict individual responses to flu vaccines.

Before, vaccination is the best way to protect against the flu, but the effectiveness of the vaccine varies greatly among individuals.

To explore the role of genes in the immune response to flu vaccination, researchers and their colleagues used data collected from more than 500 individuals who provided blood samples before and after vaccination.

When conducting data analysis, the team identified a number of gene "signatures" or groups of genes involved in a stronger response to flu vaccines.

"The reaction was determined by increasing antibodies that protect against infection in the body. From there, the team was able to identify the gene at the beginning, before vaccination even. can predict how individuals will react to the vaccine , " according to research by Ruth Montgomery, Associate Professor at Yale School of

Medicine, Yale University in New Haven, Connecticut, USA. declare.

The researchers also found that while genes predicted for a strong vaccine response in adults under 35 years old, those genes did not improve the same vaccine response in older people over 60 years of age.

Montgomery noted: *"Another finding is that genes contribute to a good immune response at different levels in young people and the elderly"* .

Scientists say that because of this age difference requires them to study more about how many genes involved in the immune response to the body flu vaccine will be different.