Interaction of environment, genetics may be responsible for more allergies in developed countries

In Western Australia, Curtin University's Brad Zhang has been looking at why Australians have one of the highest rates of allergies and hayfever in the world.

New studies, presented at the Annual Scientific Meeting of the Thoracic Society of Australia and New Zealand, reveal that something in the Australian environment is changing the way people's bodies work, making them more likely to reach for the tissue box come spring.

Zhang tested the incidence of hayfever in a group of newly-arrived Chinese immigrants and in a group of immigrants who had lived in Australia for more than two years.

He found changes known as "methylation" in the genetic structure of the group living in Australia long-term.

"We know in the past 50 years, the prominence of asthma allergies have gone up significantly in Western countries," he said.

"We have done a lot of research but we still don't know a cause why the asthma allergy is so high in developed countries."

Part of Zhang's work is trying to work out what it is in the Western environment which is causing the increase in allergies.

He said one popular theory was that the levels of bacteria in food and water in developed countries were lower.

If people are not exposed to bacteria concentrations, it may affect their susceptibility to allergies later in life.

But he said more work needed to be done.

Read full, original article: Australian environment changing genetics of allergy sufferers, research suggests