

## 'Breakthrough' study on rheumatic fever

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NEW "breakthrough" research has found those who live in overcrowded housing are more likely to develop acute rheumatic fever and streptococcal infections of the skin.

University of Otago (Wellington) lead researcher Prof Michael Baker said it was the first time researchers had investigated risk factors for group A streptococcal infections of the throat (strep throat) and skin (strep skin) that can cause rheumatic fever.

The studies found both rheumatic fever and strep skin were linked with barriers to accessing primary health care and a family history of rheumatic fever and rheumatic heart disease, a serious illness which could develop if rheumatic fever was untreated.

Prof Baker said it was a major step forward to have identified a key pathway driving the risk of rheumatic fever.

"Finding a strong association between skin infection and rheumatic fever adds to evidence from other research conducted by our group about the importance of strep skin in triggering this disease.

"These results suggest that treating skin infections in young children may provide a way of preventing them developing rheumatic fever.

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Michael Baker

infectious diseases.

"It is also a reminder of the importance of having good access to primary health care."

Prof Baker said an unexpected finding of the rheumatic fever risk factors study was that drinking sugarsweetened drinks was twice as common among the rheumatic fever cases, compared with healthy controls.

"There are several ways in which sugarsweetened drinks could increase your risk of rheumatic fever. We are planning further research to test some of these hypotheses.

"In the meantime, this is another reason for children to switch to healthy alternatives, such as water or plain milk."

Fellow researcher Associate Prof Jason Gurney said rates of rheumatic fever were about 20 times higher for Maori and 44 times higher for Pacific peoples than for nonMaori and nonPacific peoples.

"It is vital that the new incoming health organisations, notably the Maori Health Authority, Public Health Agency and Health New Zealand act on these research findings as a high priority.

"It is also crucial that we look further upstream at the social determinants of this disease and continue to address inequities in access to things like high quality, healthy housing and primary care."

Another research team member, Dr Julie Bennett, said the research provided a path forward for New Zealand to apply the broad findings, and to test specific interventions that were highlighted in the research.

Telethon Kids Institute director and leading rheumatic fever researcher Prof Jonathan Carapetis, of Perth, said the studies were a "breakthrough" in the global fight against these diseases.

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