Fibre in diet has hearty benefit

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A simple change in diet during pregnancy can help protect babies from cardiovascular disease for decades after they are born, Melbourne researchers believe.

Monash University found mothers' high-fibre diets — which could be as easy as eating common foods such as beans, nuts, oats and even potatoes and pasta — passed on crucial cardiac benefits to their babies.

Lead researcher Professor Francine Marques said the offspring of their study's highfibreeating mice had a significantly reduced cardiovascular disease (CVD) risk as an adult, and fibre "can shape the development" of foetuses' hearts.

"They went on to be protected from CVD, their hearts worked better," she said.

"The heart was also bigger and worked less ... and less stiff."

Prof Marques said the adult hearts of the mice also had less inflammation, less scarring, a better response to high-blood pressure and the findings were significant for humans.

"Cardiovascular disease is a leading cause of death worldwide, and this research suggests that a simple dietary change during pregnancy could have lifelong benefits for children," she said.

"Its impact extends beyond the mother."

She said the benefits were linked to a specific type of fibre – called resistant starch – which could be found in many everyday foods, including vegetables, fruit and whole grains.

"Beans, nuts – particularly cashew nuts ... bananas, when they are green and potatoes, pasta and rice when they are cooked and cooled down," she said.

"Even one medium-sized apple, you have nearly 5g of fibre."

Current recommendations suggest pregnant women increase fibre intake to 28-29g a day. Prof Marques said the fibre protected babies' future hearts by triggering the release of molecules – called short-chain fatty acids – into their mum's bloodstream, ultimately altering the babies' DNA structure.