

Scientists from New Zealand's Plant & Food Research (P&F) have found a natural compound found in fruits and vegetables carries benefits for the digestive system and immunity in human health. 

In a paper published in the journal *Anaerobe*, the study showed that polyphenols - found naturally in plants, giving color to fruits and vegetables - break down into molecules that positively influence beneficial microorganisms in the digestive system.

Polyphenols are one of the few compounds that can reach the colon without being digested first.

"Dietary fibre and polyphenols both reach the colon and therefore can have an effect on colonic microbiota," said Dr Shanthi Parkar who led the research.

"Many studies have shown the beneficial effects of dietary fibre, but polyphenols have not been widely studied as yet."

"Our research has shown that the polyphenols found in fruits and vegetables are broken down by bacteria in the colon. Our studies in the lab have shown that these simpler products influence the microorganisms in the digestive system to support optimum gut health."

She said the next step was to check this was also the case in the gut environment, highlighting that if the team's studies were proven correct, it may be possible to extract plant polyphenols for use as ingredients in functional foods that promote gut health.

A [French study in 2006](#) found strawberries, litchis and grapes contained the highest polyphenol content with more than 180mg of gallic acid equivalent (GAE) per 100g of fresh edible portion (FEP). For vegetables, artichokes, parsley and brussel sprouts had the highest levels of more than 250mg GAE per 100g FEP.

Acting as antioxidants, polyphenols can be broken down into four subgroups - phenolic acids, flavonoids, stilbenes and lignans.

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