

Cheese found to improve the immune response of the elderly

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Scientists in Finland have discovered that cheese can help preserve and enhance the immune system of the elderly by acting as a carrier for probiotic bacteria. The research, published in *FEMS Immunology & Medical Microbiology*, reveals that daily consumption of probiotic cheese helps to tackle age-related changes in the immune system.

"The increase in the proportion of aged individuals in modern society makes finding innovative ways to thwart the deterioration of the immune system a priority," said lead author Dr Fandi Ibrahim from the University of Turku in Finland. "The intake of probiotic [bacteria](#) has been reported to enhance the immune response through other products and now we have discovered that cheese can be a carrier of the same bacteria."

Dr Ibrahim's team believe that the daily intake of probiotic cheese can tackle the age-related deterioration of the immune system known as immunosenescence. This deterioration means the body is unable to kill tumour cells and reduces the immune response to vaccinations and infections. Infectious diseases, chronic inflammation disorders and cancer are hallmarks of Immunosenescence.

To tackle immunosenescence the team targeted the gastrointestinal tract, which is the main entry for bacteria cells into the body through food and drink and is also the site where 70% of vital immunoglobulin cells are created.

The team asked volunteers aged between 72 and 103, all of which lived in the same care home, to eat one slice of either placebo or probiotic Gouda cheese with their breakfast for four weeks. Blood tests were then carried out to discover the effect of probiotic bacteria contained within the cheese on the immune system.

The results revealed a clear enhancement of natural and acquired immunity through the

activation of NK blood cells and an increase in phagocytic activity.

"The aim of our study was to see if specific probiotic bacteria in cheese would have immune enhancing effects on healthy older individuals in a nursing home setting," concluded Ibrahim. "We have demonstrated that the regular intake of probiotic [cheese](#) can help to boost the [immune system](#) and that including it in a regular diet may help to improve an elderly person's immune response to external challenges."

Provided by Wiley

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