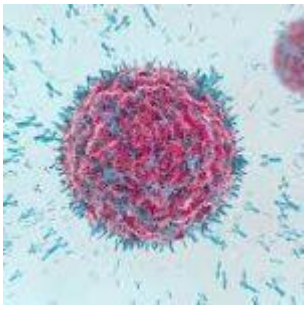
Priming the immune response with ginger



The immune system is said to be stimulated by ginger. White blood cells are put on high alert when exposed to modest amounts of a pungent ginger component, according to a recent study. This process includes a particular type of receptor that is involved in the perception of unpleasant heat stimuli and the experience of spiciness in food.

The results of the current investigation demonstrated that one litre of ginger tea contains large levels of bitter chemicals that reach the blood roughly 30 to 60 minutes later. The plasma concentrations of [6]-gingerol, which ranged from 7 to 17 micrograms per litre, were by far the highest amounts. The so-called TRPV1 receptor, an ion channel found on the surface of nerve cells, is thought to be how the pungent substance exerts its “taste” effect. This receptor reacts to painful heat stimuli as well as to pungent substances like pepper and ginger.

The team was able to identify the receptor on neutrophil granulocytes in the first stage. They also demonstrated that the cells may be made to become more alert at even extremely low concentrations of [6]-gingerol—nearly 15 micrograms per litre.

They were able to demonstrate that very low [6]-gingerol concentrations, which are theoretically attained by drinking around one litre of ginger tea, are sufficient to alter the

activity of immune cells via the TRPV1 receptor. With the aid of contemporary food and health studies, there are still a lot of issues that need to be solved.

Journal article: Gaby Andersen, G, et al., 2023. [6]-Gingerol Facilitates CXCL8 Secretion and ROS Production in Primary Human Neutrophils by Targeting the TRPV1 Channel. ***Molecular Nutrition & Food Research*****.**

Summary by Stefan Botha