How krill oil helps manage inflammatory bowel disease

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Video Byte

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Abstract

Krill oil is rich in polyunsaturated fatty acids which numerous studies have shown to be effective in reducing intestinal inflammation like that associated with inflammatory bowel disease, or IBD. But exactly how krill oil helps has remained unclear. Now, researchers have discovered a few mechanisms that might explain krill oil's anti-inflammatory effects. Test-tube experiments showed that krill oil suppressed the NF- κ B and NOD signaling pathways, which are critical to the innate immune response. Krill oil also enhanced the killing capacity of macrophages, bacteria-fighting cells that help reduce inflammation. In pigs, krill oil reduced the abundance of Rickettsiales, pathogenic bacteria found in humans and livestock. Computational analyses also revealed distinct microbial signatures associated with adding krill oil to the diet. Together with the experimental results, these signatures could help researchers develop a library of biomarkers that can guide patients to the foods most likely to resolve their intestinal inflammation.