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Nanoparticles in food packaging may disrupt gut function

By [Tim Newman](#) | Published Thursday 12 April 2018

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Zinc oxide nanoparticles are added to many different types of food packaging. A new study finds that these minute particles might disrupt the way that our intestines absorb nutrients.

Nanoparticles are between 1 and 100 nanometers in diameter.

To put that into perspective, a human hair is around 75,000 nanometers across, and a red blood cell is roughly 7,000 nanometers across.

So, nanoparticles are very small indeed. And, worryingly, they are everywhere.

Nanoparticles have a relatively large surface area, which makes them more chemically reactive. This increased reactivity gives them unique properties that are utilized by the manufacturers of a vast range of products, including paints, cosmetics, windows, sunscreens, fabrics, and cars.

As nanoparticles are used ever more liberally, some scientists are becoming increasingly concerned about their potential impact on human health.

Because they are so common and so small, it is very easy for nanoparticles to enter our bodies. And, even more worryingly, they are small enough to pass through cell membranes, potentially disrupting their activity. However, little is known about how they might interfere with biological processes.

Looking to investigate these interactions, researchers from Binghamton University in New York



Many tinned foods contain zinc nanoparticles.

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