

## Dunkin' Donuts Contain Nanoparticles, Study Finds

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Product	TiO <sub>2</sub> Listed as Ingredient	Total TiO <sub>2</sub> ppm
Conchitas - Fine Pastry		Not Detected
Dolly Madson - Donut Gems	•	58
Dunkin' Donuts - Powdered Cake Donut	•	10
Ehrenmann's - Popovers Donuts		73
Hostess Brand - Donettes	•	75
Kroger - Sugared Cake Donut Holes	•	43
Little Debbie - Mini Powdered Donuts	•	43
Sunnyside Farms - Mini Powdered Donuts	•	71
Van de Kamp's - Donuts	•	43
Walmart The Bakery - Powdered Mini Donuts		63

The white powdered sugar that coats Dunkin' Donuts Powdered Cake Donuts and Hostess Donettes contains nanoparticles of potential carcinogen titanium dioxide, according to research by green nonprofit [As You Sow](#).

Slipping Through the Cracks: An Issue Brief on Nanomaterials in Food presents results of a survey of 2,500 food companies about their use of nanomaterials in food products. The study also includes laboratory results from testing on the doughnuts.

Test data showed that the consumption of one serving size of Hostess Donettes (three small doughnuts) would result in the ingestion of 13.8 mg of TiO<sub>2</sub> in the nanoparticle size of less than 10 nm, while one serving (one doughnut) of a Dunkin' Donut Powdered Cake Donut would result in the ingestion of 8.9 mg of TiO<sub>2</sub> less than 10 nm in size.

In 2006, the International Agency for Research on Cancer classified TiO<sub>2</sub> as an IARC Group 2B carcinogen, meaning it could "possibly" be carcinogenic to humans.

Nanomaterials have been heralded as having the potential to revolutionize the food industry – from enabling production of creamy liquids that contain no fat, to enhancing flavors, improving supplement delivery, providing brighter colors, keeping food fresh longer, or indicating when it spoils. Yet few, if any, studies adequately demonstrate the safety of nanoparticles in food, [As You Sow](#) says. In fact, scientists are still investigating how nanoparticles will react in the body and what testing methodologies are appropriate to determine this, the report says.

Because of their small size, nanoparticles can go places in the body that larger particles cannot, [As You Sow](#) says. Nanoparticles in food or food packaging can gain access via ingestion, inhalation, or skin penetration. Once inside the body, nanoparticles can penetrate cell walls and pass into the blood and lymph system. From there, the particles can circulate through the body and reach potentially sensitive target sites such as the bone marrow, lymph nodes, spleen, liver, and heart, and may also cross the blood-brain barrier, according to [As You Sow](#).

The organization's survey results indicate that food, food packaging, and supplement companies are not being transparent about their use of nanomaterials. The survey was sent to 2,500 companies in the food industry, including the 100 largest food processing companies, the 50 largest food distributors, the 75 largest food retailers, the 25 top packaging companies, the 50 top fast-food companies, and 187 supplement companies. It yielded only 26 responses and a third of those companies admitted they did not know if nanomaterials are present in their products or supply chains.

Only two companies had formal policies on the use of this new food additive that has undergone little or no safety testing.

In December the EPA and the US Consumer Product Safety Commission announced that they are collaborating in a worldwide research effort to assess any potential impacts of nanomaterials on people's health and the environment.