

# Nanotechnology and Food

Page Content

## RELATED LINKS

- [National Enabling Technologies Strategy](#)
- [Australian Research Council Nano Network](#)
- [NanoSafe Australia](#)
- [UK Food Standards Agency](#)
- [US Food and Drug Administration](#)
- [Health Canada](#)
- [Woodrow Wilson Nanotechnology Project](#)
- [The Stupp Laboratory](#)
- [Rice Uni - Int Council for Nanotechnology](#)

(Last updated December 2011)

The term nanotechnology is used to describe engineered matter that is less than 100 nanometres (nm) in size. One nm is one billionth of a metre.

While the term may be new, food and water are naturally made up of nm-scale particles. For example, proteins are in the nanoscale size range and milk is an emulsion of nanoscale fat droplets.

Humans are also exposed to ultrafine and nm scale particles such as smoke, dust, ash, and fine clays through the air, food and water. Scientists estimate that in urban air we may inhale millions of nanoscale particles in every breath.

Any new foods manufactured using nanotechnologies that may present safety concerns will have to undergo a comprehensive scientific safety assessment before they can be legally supplied in Australia and New Zealand.

Using the best available scientific evidence, FSANZ has adopted a range of strategies to continually review and manage potential risks associated with nanotechnologies in foods to ensure the public are not exposed to any health or safety issues.

These strategies include:

- amending the FSANZ [Application Handbook](#) to support new food regulations and ensure applicants provide all the necessary information to help FSANZ conduct a risk assessment
- advising the food industry about the amendments to the Application Handbook involving nanotechnology and asking industry for information about proposed nanotechnology applications
- engaging with other national regulatory agencies, industry and the public to outline FSANZ's regulatory responses.

FSANZ has not received any applications to approve new or novel nanoscale particles for food use.

Find out more about nanotechnology on the [Department of Industry website](#).