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By:



[Day-old nanotechnology?](#)

Yeah, now it's edible

Nanotechnologies involve the manipulation of structures at the molecular scale and can change the behavior of materials. It has been slowly moving into sun creams, drug delivery and computer disk drives to improve storage. To increase the absorption of medicines, researchers are creating nanoparticles that can hook onto the gut and thus stay longer, increasing drug uptake. Edible forms of nanotechnology could help make smart programmable drinks and more effective drugs. If the prospect of edible nanotech sounds frightening, don't worry, it is not about including little robots for use in food. Scientists are creating edible capsules only nanometers or billionths of a meter in size to enhance food or medicine. Edible nanoparticles are composed of materials either relatively inert in the body, such as silicon or ceramics, or materials that react with the body's eat or chemistry, such as polymers. One key advantage edible nanoparticles have over larger particles is how nanotechnology can take something that is extremely insoluble in nature, like some drugs, and by breaking them up to the nano-level help release them in the body. In addition to releasing drugs, nanoparticles could release a dye or trace chemical in the body upon making contact with proteins specific to cancer. Nanotechnology has been used or at least it is being tested as a reliable weapon against cancer cells. Cancer researchers have long sought a "magic bullet" that selectively targets tumor cells for destruction. In an attempt to enlist nanotechnology in that search, a Rice University spinoff, Nanospectra Biosciences, has developed gold-coated glass nanoparticles capable of invading a tumor and - when heated remotely - killing it. Nanospectra's particles measure 150 nanometers in diameter, which the company believes is the ideal size to permit passage through tumors' characteristically leaky blood vessels.