

Super Bowl Snack Science

Good Guac?

Putting that chip in the dip actually has some health benefits. Avocado, the main ingredient in guacamole, contains antioxidants like beta-carotene and lycopene. These healthy molecules prevent or delay cell damage. But guac has an added advantage thanks to a tasty mix of ingredients: avocados increase absorption of these antioxidants.

Solid or Liquid?

Melted cheese is a non-Newtonian fluid. That means sometimes it behaves like a solid, and sometimes like a liquid (depending on the amount of pressure applied to it). Other non-Newtonian fluids include custard, ketchup and quicksand.

Brain Saved by Beer?

Hops are part of what give beer its bitterness and aroma. But sipping those suds (in moderation) could also help your brain cells ward off Alzheimer's and Parkinson's disease. A recent study in the Journal of Agricultural and Food Chemistry found that a compound in hops called xanthohumol may protect neurons in the brain and could potentially slow the development of brain disorders.

Hot Wings Too Hot?

If you've downed too many hot wings, it's better to reach for milk than water to cool down. The spicy stuff in hot sauce, capsaicin, is a nonpolar molecule. Milk contains casein, also a nonpolar molecule. This means milk can dissolve the capsaicin and wash it away from your burning tastebuds. Water is a polar molecule, so it can't dissolve capsaicin. In fact, the two kinda hate each other, so the fire spreads around your mouth even more.

Sources:

<http://www.acs.org/content/dam/acsorg/education/resources/highschool/chemmatters/archive/chemmatters-dec2013-pepper.pdf>

<http://sciencelearn.org.nz/Science-Stories/Strange-Liquids/Non-Newtonian-fluids>