

Iron in Breakfast Cereal (Magnetism)

Physics Concept

Some foods are fortified with iron by adding elemental iron, sort of like iron filings. Iron filings may not seem very digestible but they taste better than chicken liver in your breakfast cereal. Your body does assimilate part of the iron added to the cereal and passes the rest.

You can separate out some of the iron particles by mashing the cereal and pulling the particles out with a magnet. A plastic bag is used to allow the particles to be separated from the magnet.

Materials

Magnet, a breakfast cereal fortified with iron, plastic bag, water, sheet of white paper. You might try some consumer physics by comparing different types or brands of cereals.

Method

Put a little cereal and water in a cup and pulverize into mush. Put the magnet in a plastic bag and stir the mush with the magnet. Remove the magnet from the bag and wipe the bag on the white sheet of paper. The black motes are iron filings. You can demonstrate this by picking them up again with the magnet.

Application in Real Life

You may not want to do this everyday with your cereal, but the use of magnets to reclaim iron from junk metal is a very common process.