



## Food tests

We eat many complex foods which contain mixtures of carbohydrates, fats and proteins. Food tests enable you to find out what food types a food contains.

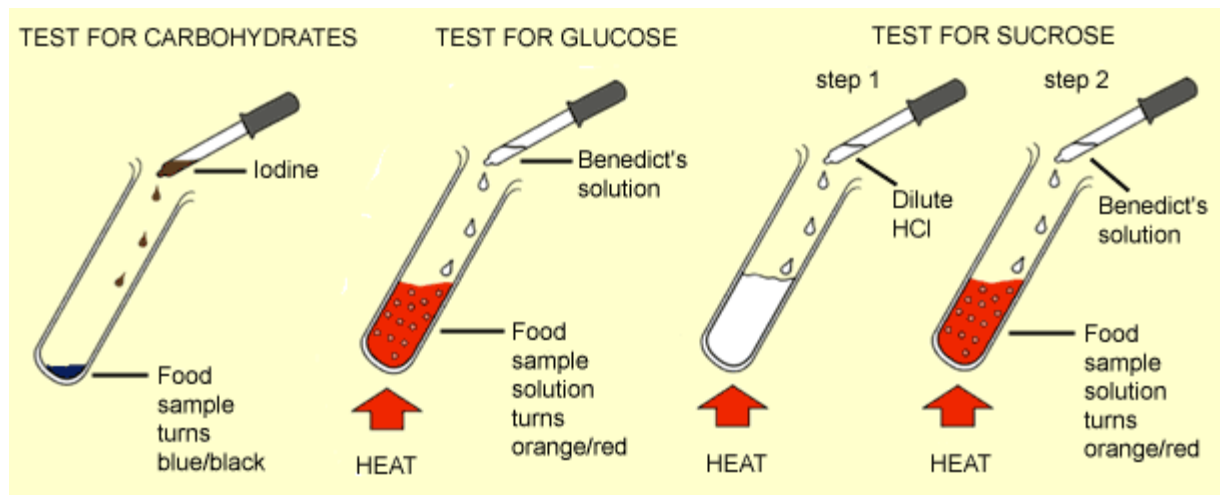
For fats the test is simply to squash a sample of food onto a piece of paper and leave it to dry. A positive test for fat is a translucent stain around the food sample when you hold the paper up to the light.

For the other food types, first prepare a sample of food for testing:

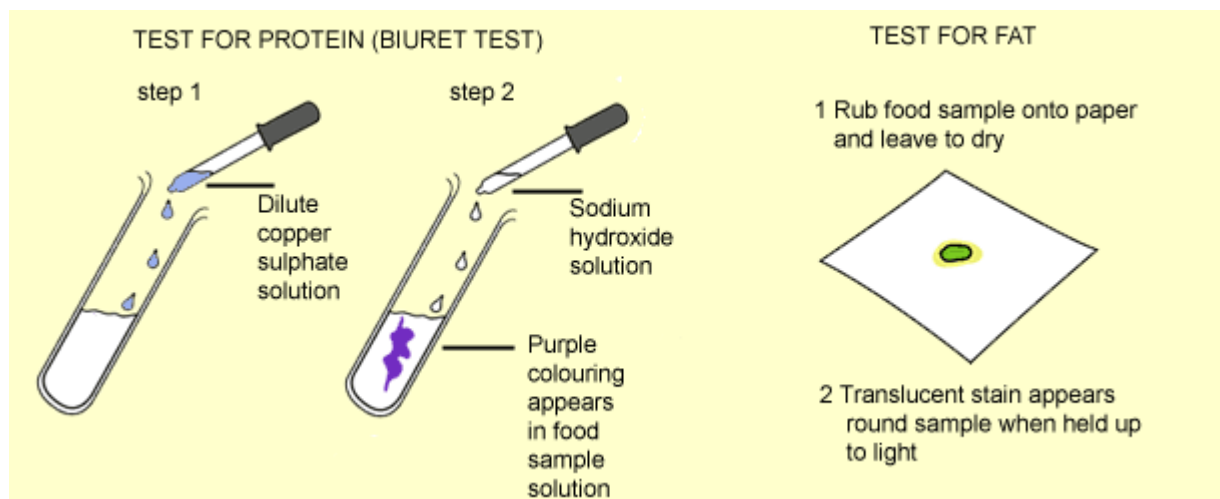
1. Crush some food in a pestle and mortar
2. Add a spatula-full to a boiling tube
3. Add 5cm<sup>3</sup> of distilled water and stir
4. Bring to boil and simmer for 1 minute
5. Cool and add the test **reagent**

You need to know the different tests for starch, sugars and protein.

Test for	Reagent	Positive test
Carbohydrates - starch	Dilute iodine	Turns blue-black
Carbohydrates - glucose	Benedict's solution	Orange/red <b>precipitate</b>
Carbohydrates - sucrose	A few drops of dilute HCl acid + a few drops of Benedict's solution	Orange/red precipitate



Test for	Reagent	Positive test
Protein	Biuret test - add a few drops of dilute copper sulphate solution, followed by a few drops of sodium hydroxide	Purple or violet precipitate
Fat	Rub a food sample onto a piece of paper. Leave to dry.	Translucent stain round the sample when held up to the light



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