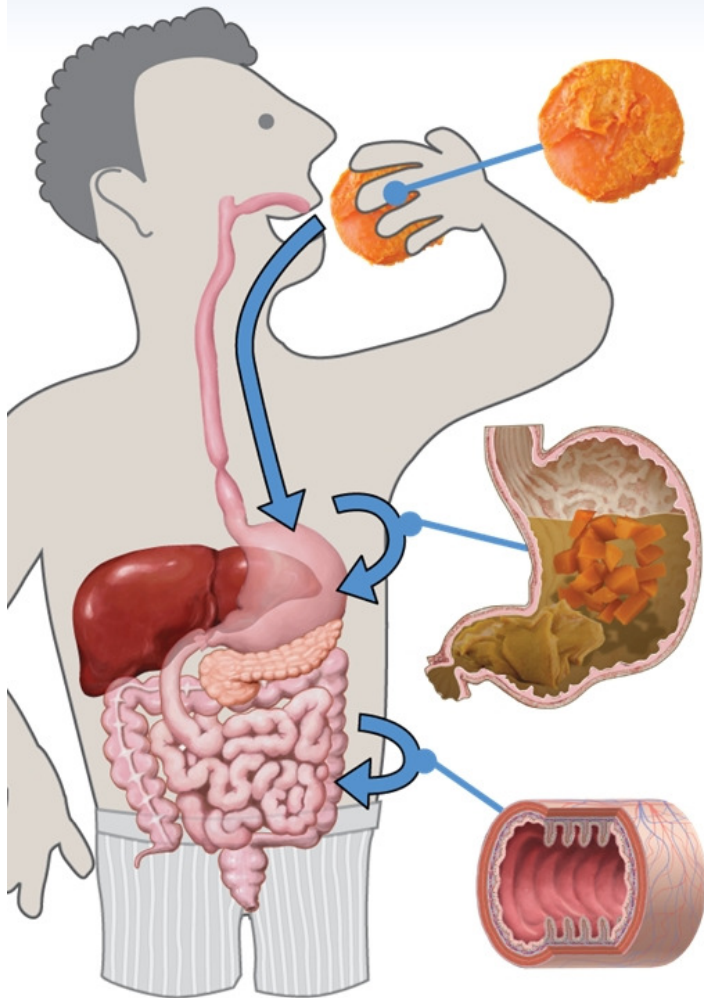


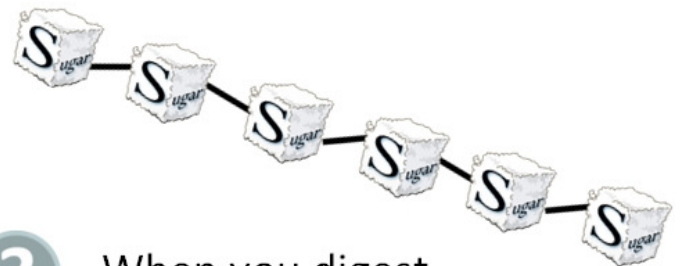
Carbohydrate hydrolysis



1 Vegetables & cereals are carbohydrate food



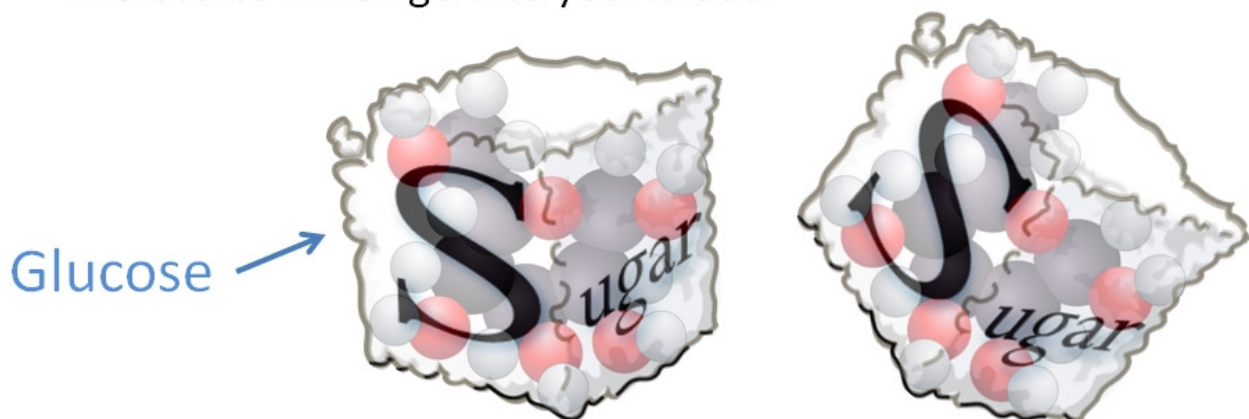
2 Carbohydrates contain long chains of sugar molecules



3 When you digest carbohydrate food the long carbohydrate chain breaks down into separate sugar molecules

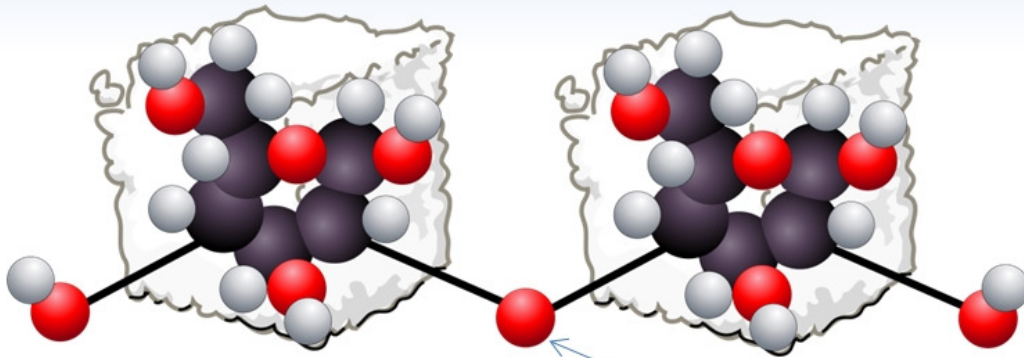


4 **Glucose** is the name of the sugar molecules which go into your blood



Water breaks the carbohydrate chain

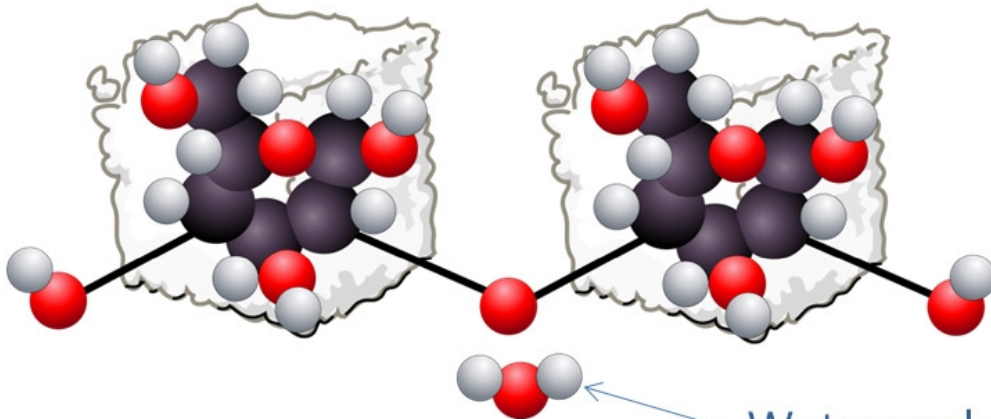
- 1 **Maltose** is a carbohydrate chain with only one link



The link is an oxygen atom

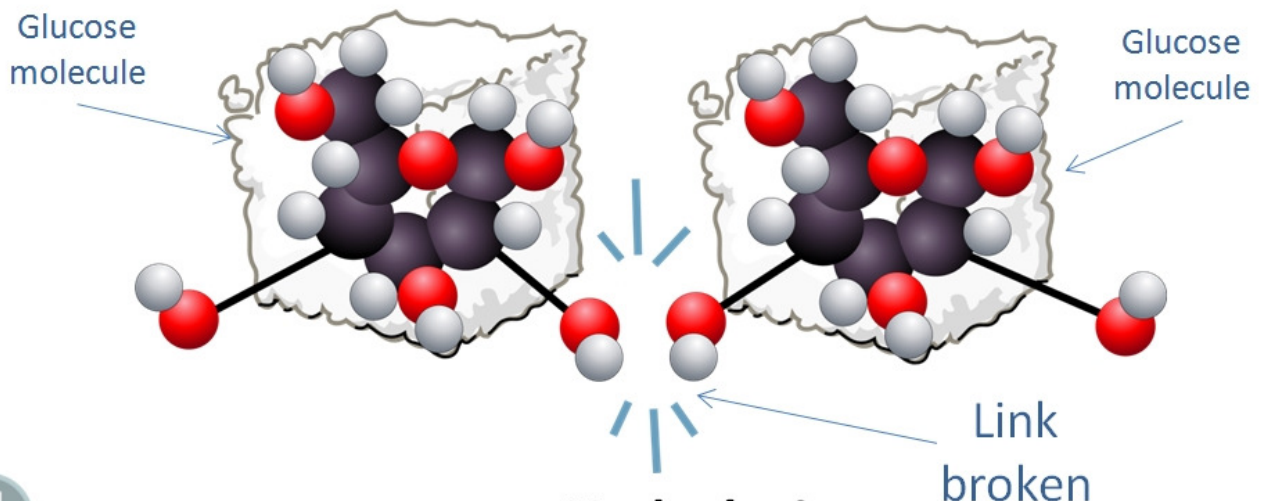
Oxygen atom

- 2 The chain is broken by adding a molecule of **water**



Water molecule

- 3 There are **2 glucose** molecules. One sugar molecule has added a hydrogen atom, the other sugar molecule has added an oxygen and hydrogen atom



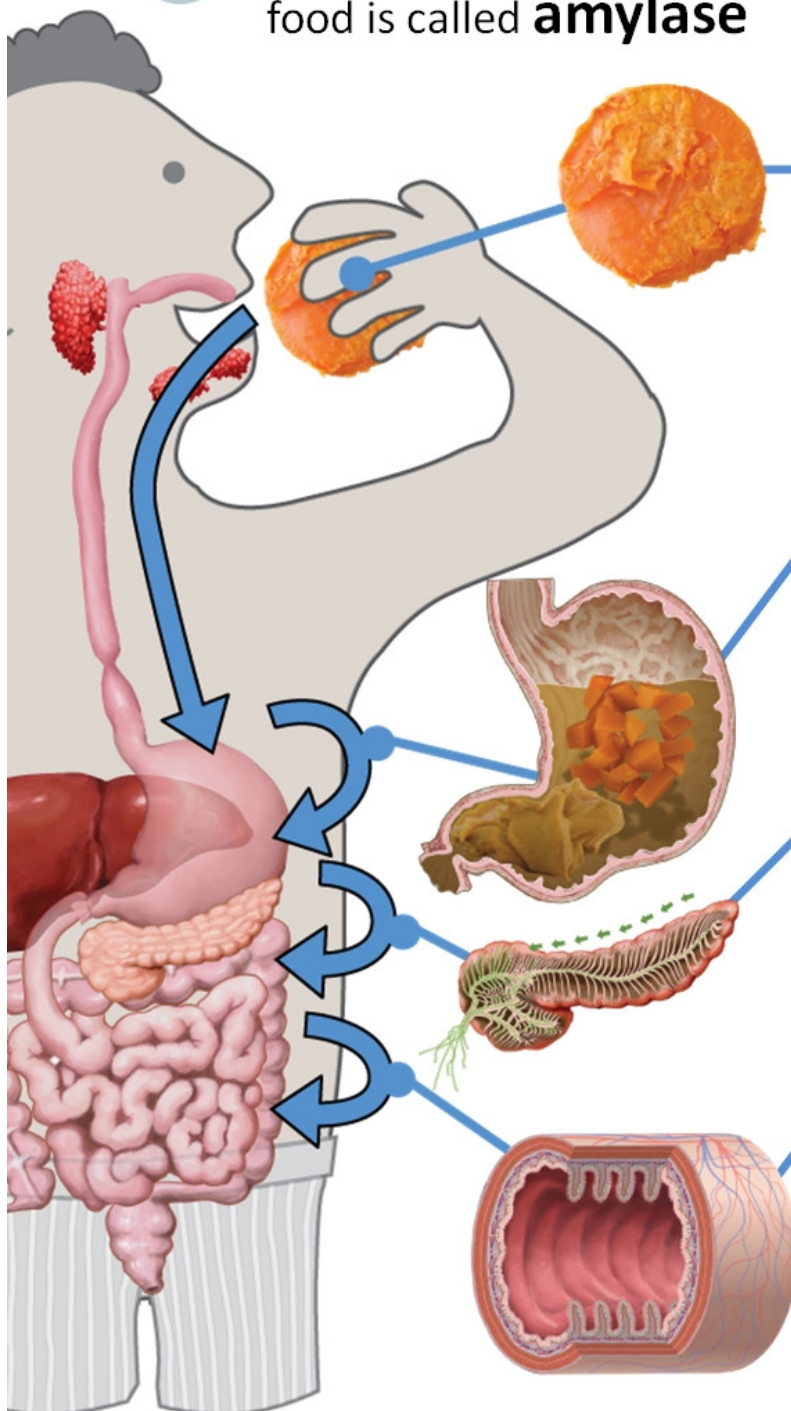
Link broken

- 4 This process is called **Hydrolysis**

Carbohydrate hydrolysis needs some help

1 Water can't **hydrolyse** the carbohydrate on its own it needs an **enzyme** (A protein which helps a chemical reaction)

2 The enzyme which helps to **hydrolyse** the carbohydrate food is called **amylase**



3 **Saliva** in your mouth contains **amylase** and starts the **hydrolysis**

4 In your stomach **Hydrolysis** stops because there is too much acid

5 Your **pancreas** put **amylase** into your gut (intestines)

6 The **amylase** helps **hydrolyses** the carbohydrate foods.

7 **Glucose** goes into your blood

There is no need to print the following page when printing and using this resource
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You must use your own professional judgement when using this resource

Purpose of resource:

To describe hydrolysis of carbohydrates in the digestive system . Preferably should be taught after covering Digesting Carbohydrates.

Target group:

This resource is designed to be used by Australians of all ages.

Notes:

This resource is designed to be printed A3 size and then laminated.

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