Food experiments Detection of Starch

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# Experiment: Carbohydrates in Food Evidence of starch

### **Equipment**

Culture dish, kitchen knife, test tubes, test tube rack

#### **Materials**

Various food products: potato starch, flour, potatoes, sugar, table salt, bread, apple, banana, cheese, oil, etc

Reagents: iodine solution in dropping bottle (I<sub>2</sub> · KI solution in water)

## Safety and disposal guidelines

#### For all experiments:

Do not eat or drink during the experiments. After finishing the experiments, put used gloves into the waste and always wash your hands thoroughly.

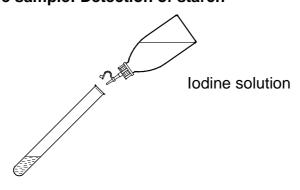
## Starch in everyday life

When you are really hungry you know that a large dish of pasta will eliminate your hunger quickly. The reason for this is that pasta contains carbohydrates in the form of starch. Carbohydrates are among the most important nutrients for the human body. In the following experiment, you will learn how to detect starch in food.

## **Experiment**

In order to become familiar with how to detect this substance, start with a comparative sample.

#### 1. Comparative sample: Detection of starch



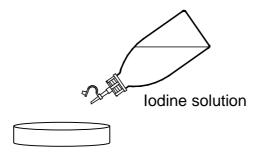
- Pour some potato starch and water into a test tube and shake the starch to dissolve it.
- Add a few drops of iodine solution.
- Observe closely what happens.

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#### **Observations:**

We can use iodine solution to detect starch and make it visible in food products.

## 2. Evidence of starch in various food products



- Put pieces of different food products into the culture dish (Cut the food products into pieces that fit onto the dish. You may also shake and disperse powdery food products with water in a test tube.)
- Now drop iodine solution on all food products.
- Observe closely what happens!

Sample	Observation	Starch: yes	Starch: no