

Eating with your eyes

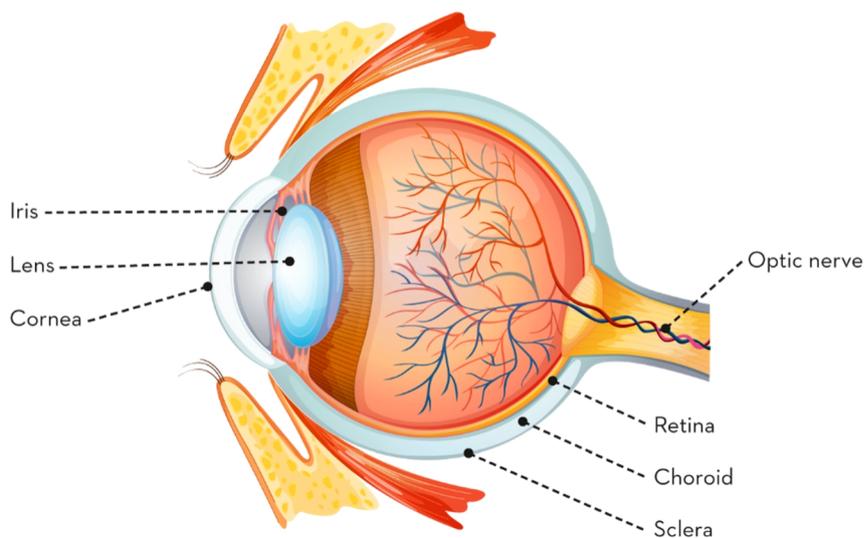
PHYSICAL AND CHEMICAL STIMULI

Our five senses enable us to receive information about the outside world. Some of these senses react to 'physical' stimuli and others to 'chemical' stimuli.

Take our eyes, for example. What type of stimulus do you think they respond to? Physical or chemical? With **sight**, there is a reaction to **physical stimuli**. This is also the case with hearing and touch.

Smell and **taste**, however, are responses to **chemical stimuli**.

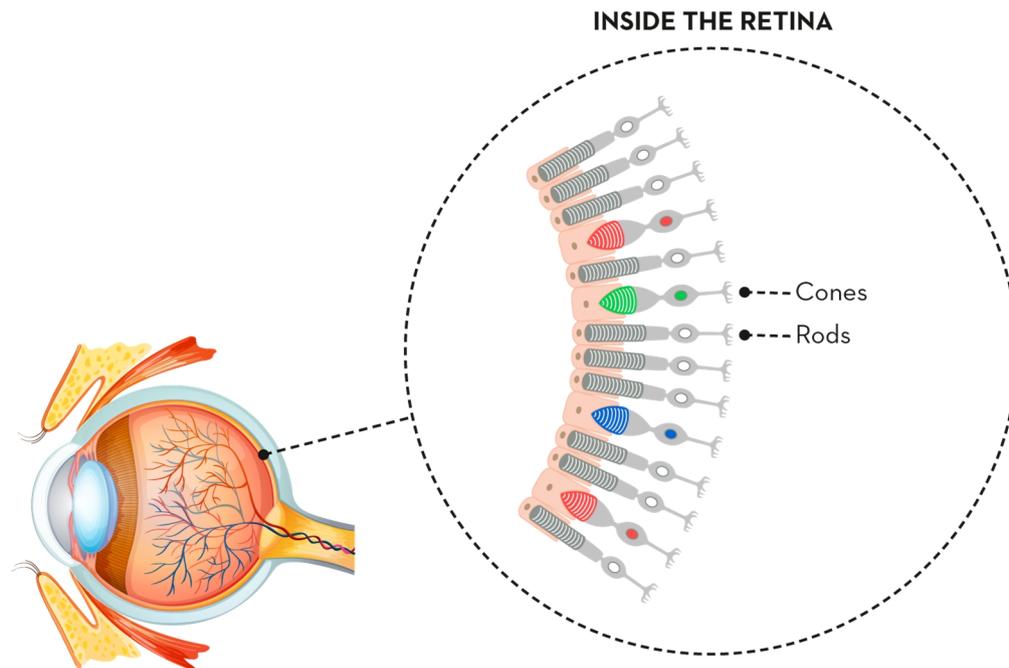
We would often find it hard to identify food without the sense of sight.



Sight generally provides us with a first impression of the food we eat.

RECEPTORS

Our eyes are made up of over 100 million receptors. 5% of these receptors are represented by what are called the retinal **cones**.



Most of these cones are located in the centre of the retina. They tell us about the colour and sharpness of objects.

The other 95% are represented by the retinal **rods**. Most of these rods are concentrated around the edge of the retina. They are 1000 times more sensitive to light than the cones and enable us to see things in dim light. However, they cannot distinguish between colours.

VISUAL INFORMATION

Eyes are able to send visual information to the brain at high speed. They send information to the brain in a few milliseconds via the **optic nerve**.

Our eyes provide us with information about the **shape** of food. Is it round like an orange or a melon, or oval like a lemon or a potato?

We also see the **colour** of food. For example, beans and spinach are green, whereas strawberries and cherries are red.

Then there is the **state** of food. In other words, if it is liquid, like water or fruit juice, or solid like a biscuit or a hazelnut.

Our eyes also enable us to register the **size** of food. Is it more like the size of a pea or the size of a watermelon?

Finally, there is the **texture** of food, which can be rough like an oyster shell or smooth like the skin of a tomato.

alimentaryum academy

Food can come in many shapes, sizes and forms.

Take an apple, for example. You can eat an apple whole, but also in quarters or even puréed. An apple can be green, yellow or red. It can be solid, but it can also be liquid, in the form of fruit juice.

IMPORTANCE OF SIGHT

Sight allows us to recognize food, to know whether we are going to like it or not and if it is ready to be eaten. For example, is the strawberry red enough and ripe enough to be picked and eaten?



More importantly, sight allows us to distinguish food that is edible from food that is poisonous.

We see very quickly whether food has gone off or is too old. However, sight does not give us the 'full' picture. Food may have gone bad, been spoilt or contaminated without it being possible to 'see' this. The reverse is also true. Fruit does not have to be perfect to taste good. For example, russet apples have blemishes and are wrinkled but they are nice and juicy!

SIGHT AND OUR EXPECTATIONS

Sight can influence us, but it can also mislead us. If the natural colour of food has been changed, it may not be appetizing any more. What would you say to a blue apple or green meat, for example?



Colours can also create expectations with regard to other perceptions. For example, red may be associated with a soft fruit, such as a strawberries and create the expectation of a strawberry flavour.



Similarly, yellow will be associated with bananas and green with mint.

Consequently, it may be easy to deceive someone by offering them red water that has a banana flavour or green water with an orange flavour.



EATING WITH YOUR EYES

One last point on the sense of sight. Seeing food can make us salivate and prepare to ingest and digest food even before it is in our mouths, hence the expression that we also 'eat with our eyes'.