

The eye **Triple only**

What do the cornea and lens do?

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What does the iris do?

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What do rod cells do?

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What do cone cells do?

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What is a cataract?

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What is long-sightedness?

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What is short-sightedness?

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What causes colour blindness?

Controls how much light enters the eye by changing the size of the pupil.

They refract (bend) light. The cornea bends light entering the eye and the lens focuses it on the retina.

Detect colour and work in bright light.

Detect dim light. They do not detect colour.

Near objects look blurred because light is focused behind the retina.

The lens becomes cloudy, so less light reaches the retina and vision is blurred.

One or more types of cone cell are missing or not working properly.

Distant objects look blurred because light is focused in front of the retina.

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How is long-sightedness corrected?

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How is short-sightedness corrected?

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How are cataracts corrected?

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How can laser eye surgery correct long- or short-sightedness?

With a concave lens, which spreads light out so it focuses on the retina.

With a convex lens, which bends light inwards so it focuses on the retina.

It changes the shape of the cornea, so light is focused on the retina.

Surgery removes the cloudy lens and replaces it with an artificial lens.