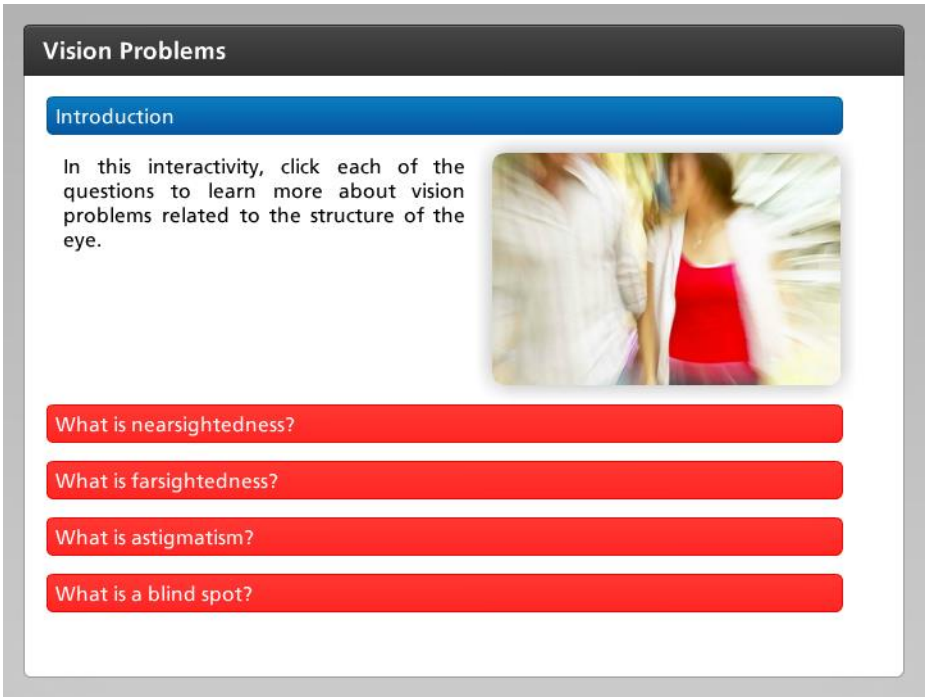
Module 3: Sensation and Perception
Topic 2 Content: Vision Problems Notes

Introduction



In this interactivity, click each of the questions to learn more about vision problems related to the structure of the eye.

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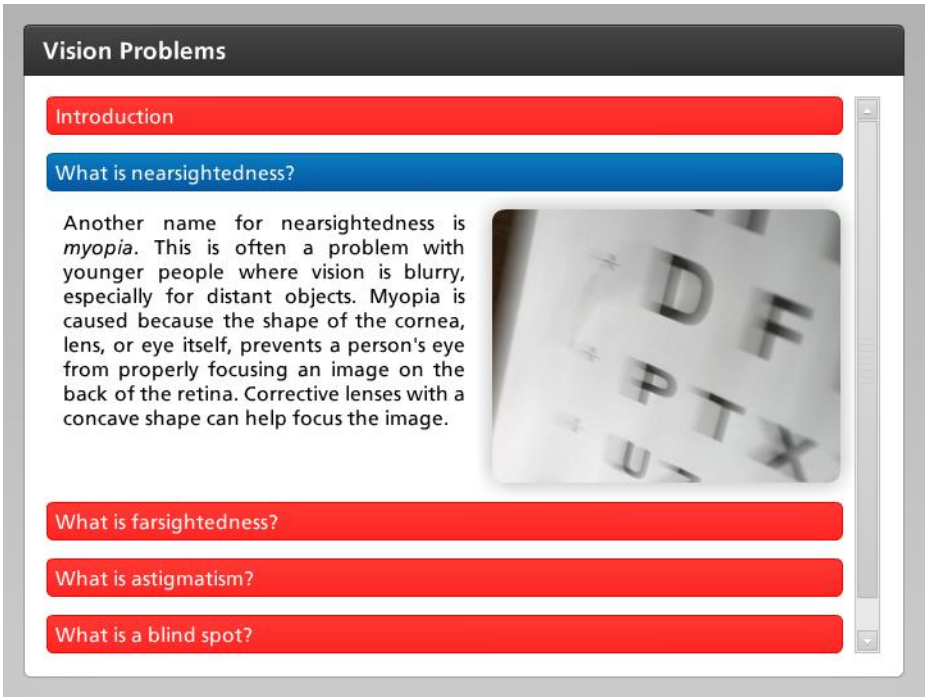
What is nearsightedness?



Another name for nearsightedness is *myopia*. This is often a problem with younger people where vision is blurry, especially for distant objects. Myopia is caused because the shape of the cornea, lens, or eye itself, prevents a person's eye from properly focusing an image on the back of the retina. Corrective lenses with a concave shape can help focus the image.

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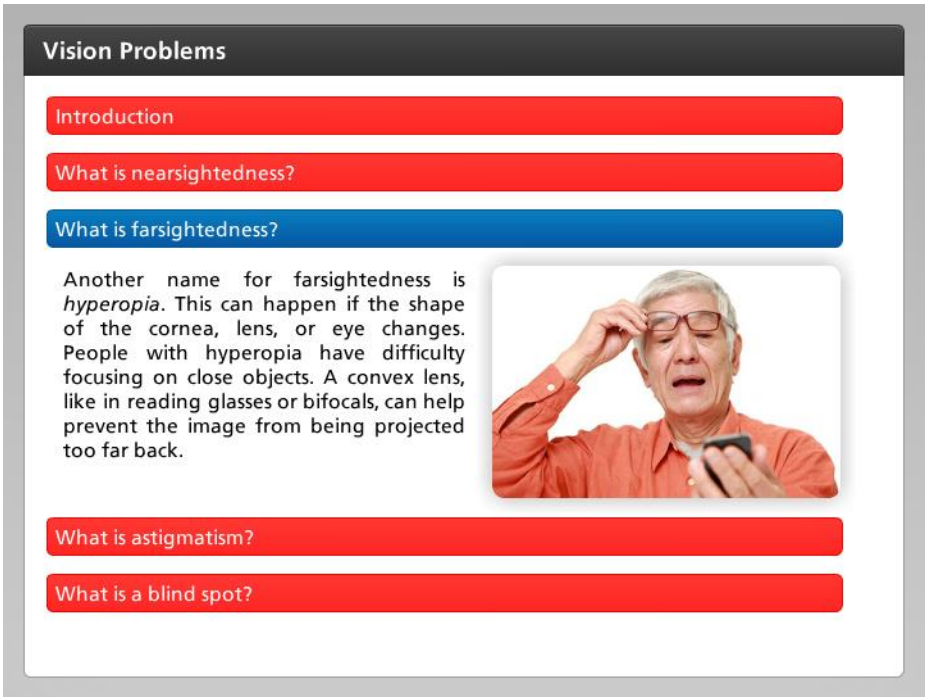
What is farsightedness?



Another name for farsightedness is *hyperopia*. This can happen if the shape of the cornea, lens, or eye changes. People with hyperopia have difficulty focusing on close objects. A convex lens, like in reading glasses or bifocals, can help prevent the image from being projected too far back.

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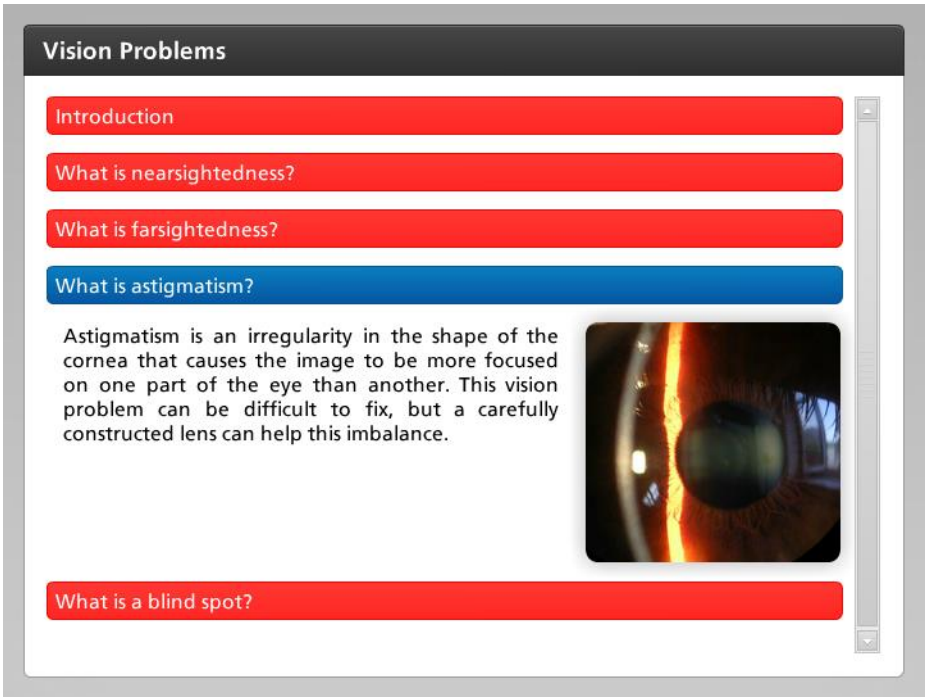
What is astigmatism?



Astigmatism is an irregularity in the shape of the cornea that causes the image to be more focused on one part of the eye than another. This vision problem can be difficult to fix, but a carefully constructed lens can help this imbalance.

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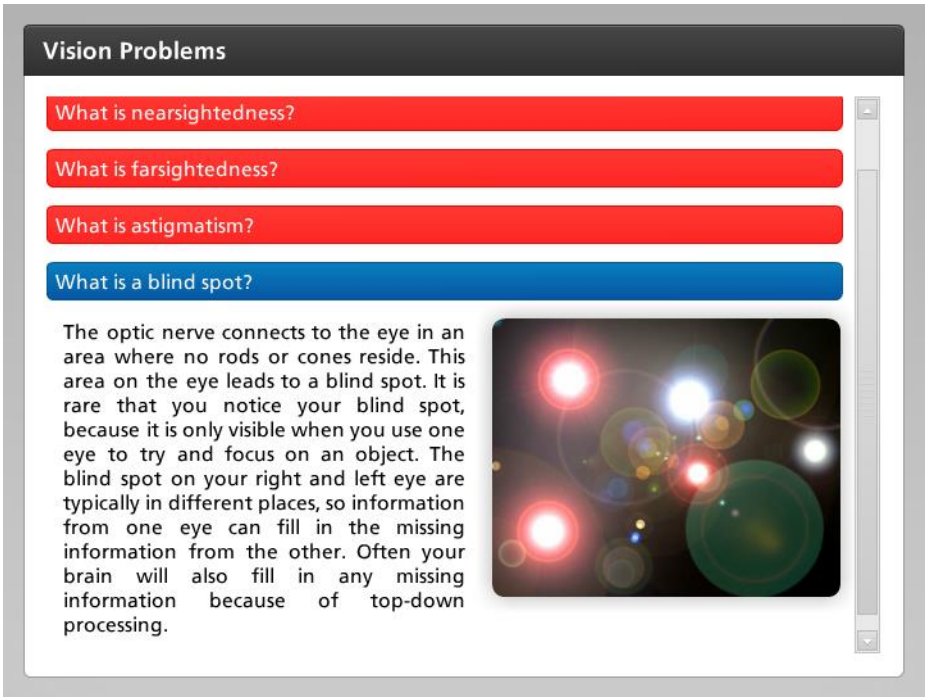
What is a blind spot?



The optic nerve connects to the eye in an area where no rods or cones reside. This area on the eye leads to a blind spot. It is rare that you notice your blind spot, because it is only visible when you use one eye to try and focus on an object. The blind spot on your right and left eye are typically in different places, so information from one eye can fill in the missing information from the other. Often your brain will also fill in any missing information because of top-down processing.