



Using a Fresnel prism

This leaflet explains how using a Fresnel prism can help improve symptoms caused by binocular double vision and instructs you on how to fit one on one lens of your glasses.

What is a Fresnel prism?

A Fresnel prism is a thin lightweight sticker that can be easily fitted on to your glasses. Fresnel prisms come in a range of different strengths and are used to help relieve symptoms of binocular double vision. The prism moves one of the images closer to the other until they line up, so you see just one clear picture.



Why are they prescribed?

Fresnel prisms are used as a short-medium term treatment if your double vision is expected to change over time or as a trial before a permanent prism can be built into your glasses.

How will they affect my vision?

Initially, you may experience slight blurring in the eye looking through the prism, but after a while with both eyes open, you should have comfortable single vision. Some patients notice a "rainbow" effect when looking at lights, which is normal when a prism splits light.

Fresnel prisms are designed to give you single vision when looking straight ahead, but some patients may notice double vision when looking in other directions. If this occurs, try moving your head to look at an object rather than relying on side gazes.

How long will I need to wear the prism for?

This will vary from person to person. For some, double vision resolves quickly after a few weeks. However, for others, the recovery process may take several months or even longer. Your double vision may fluctuate during this time, sometimes worsening before improving. The timeline for recovery depends on the underlying cause of the double vision. In some cases, as the cause resolves, so does the double vision.

In some patients, double vision may go completely, and they may not need any prism. However, others may require a small prism to help control the double vision. Typically, after 6 months, if the double vision is stable and no longer changing, a prism strength can be built into your glasses. Regular follow-up appointments with your orthoptist are crucial to monitor your progress and determine the best course of action for managing your double vision effectively.

How do they fit onto my glasses?

The orthoptist (expert in diagnosing and treating defects in eye movement) will assess your eye position and take measurements to determine the correct strength of prisms needed to help with your double vision. Depending on the orientation of your double vision, the orthoptist will decide in which direction the prism will be fitted and for which eye. The Fresnel prism fits onto the inside of the lens over **ONE** eye only. The prism will then be cut to size to fit onto one lens of your glasses. The orthoptist will fit this onto your glasses for you.

Water is used to attach the prism and it will remain in place once dry (this usually takes around 20 minutes). **No glue** or **adhesive** is required, even if the prism becomes loose. Additionally, the prism can easily be removed or replaced if it becomes unsuitable as your double vision changes.

How do I clean my glasses with a prism over one lens?

The Fresnel prism is attached to the back surface of one lens; you can clean the front of your glasses as normal. You can clean the prism with a small amount of soap and water using a soft nail brush or toothbrush.

Do not use any cleaning products containing alcohol; this will make the prism go cloudy.

How to fit the prism back onto your glasses:

In the event that your prism falls off and needs refitting, or if a replacement prism needs to be fitted, please follow the steps below:

The prism is to be fitted over _____ lens with base of prism facing _____

1. **Identify prism orientation:** The prism has a smooth and rough side, with little ridges visible from the side. The orientation of the prism depends on the type of double vision you have, usually determined by the direction of the base of the prism – **UP**, **DOWN**, **IN** (towards the nose) or **OUT** (towards the ear).



2. **Prepare glasses and prism:** Identify the correct lens and direction of the prism.
3. **Cut the prism to shape of the lens (if provided uncut):** Lay the smooth part of the prism onto the inside surface of the lens in the right orientation and draw around the shape of the lens with a biro and then cut around the drawn shape to match the lens.
4. **Attach the prism:** Hold your glasses under running water to wet the surface of lens and slide the smooth surface of the prism onto the back surface of the lens. Press down firmly from the centre outwards to remove any air bubbles trapped between the lens and the prism.

Your prism will be checked and refitted if needed at every follow-up appointment. If your prism falls off and is lost or damaged, please call the Orthoptic Department for a replacement.

Contact us

If you have any questions please call 0118 322 7681 or 7683 Monday to Friday between 8.30am and 4.30pm.

Orthoptic Department

Level 2 Eye Block, Royal Berkshire Hospital

To find out more about our Trust visit www.royalberkshire.nhs.uk

Please ask if you need this information in another language or format.

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