



Oxford University Hospitals
NHS Foundation Trust

How to use Fresnel Prisms

Information for patients



Orthoptic Department,
Oxford Eye Hospital

This leaflet will give you information about Fresnel prisms and how they can help with your vision.

What are Fresnel prisms and why are they prescribed?

The reason we prescribe a Fresnel prism is to help relieve double vision. A prism will move the position of one of the images you can see. It will help you to join the two images you can see (that have been caused by your double vision), so that you can achieve single vision.

A Fresnel prism is made from light plastic, which can be easily fitted to your glasses. They come in a range of different strengths. They are used as a temporary treatment if your double vision is expected to change over time, or as a trial before a more permanent prism can be built into new glasses.

How does it fit onto my glasses?

The Orthoptist will have assessed your eye position and taken measurements to choose the correct strength of prism needed to help your double vision.

The prism will be cut to fit on to one lens of your glasses. Occasionally a Fresnel prism will be fitted to both lenses.

The Fresnel prism is attached to the lens using water and will remain firmly in place once dry (this takes about 20 minutes). No glue or adhesive is needed or should ever be used if the prism comes loose.

The prism can easily be removed if it is unsuitable or needs to be adjusted as your double vision changes.

Will the prism affect how much I can see?

There may be a slight blurring of your vision in the eye looking through the prism, but with both eyes open you should have comfortable single vision. You may be aware of a slight 'rainbow' effect when looking at lights. This is caused by the prism splitting up the light into its different colours.

The prism will help you to get single vision when looking straight ahead, but you may still be aware of double vision when you look in different directions. This can happen more often if your double vision has been caused by a weak eye muscle(s). Try to move your head to look in different directions, rather than moving your eyes.

How long will I need to wear the prism?

This can vary considerably from person to person. For some people, the double vision can start to get better quite quickly and go after a few weeks. For others there is much slower recovery which can take several months.

Your double vision will change over the recovery period; sometimes it can become worse before getting better. It is for these reasons that we start off using a prism that can be changed to a different strength more easily. We don't rush to build a prism into a glasses prescription, as it could be very costly for you to keep changing your glasses if the strength of the prism needs to be adjusted.

These expected changes are also the reason why you will need regular appointments with the Orthoptist. They will monitor measurements and check that the prism is still the correct strength.

If your double vision does not recover completely, has stayed at the same point of recovery for around 6 months and is not expected to change further, you will be given an appointment to see the Hospital Optometrist. They will carry out a glasses test and look into prescribing you a prism that is built into one or both of the lenses. This may mean having separate pairs of glasses for reading and distance viewing, rather than varifocals or bifocals.

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

The prism is attached to the back surface of the lens, so you can clean the front of your glasses as normal.

The prism can be peeled off so that you can clean the back of your glasses. You can also clean the prism with a small amount of liquid soap, warm water and a soft nail brush or toothbrush.

To fix the prism back onto your glasses:

- Rinse off all the soap and hold your glasses under some running water.
- Slide the smooth surface of the prism onto the back surface of the lens (make sure it is the same lens that you removed it from and that it is the right way up).
- Press down gently and squeeze out any large air bubbles.

If you do not feel confident about removing the prism, it is still possible to clean it using the items suggested above, being careful not to dislodge the prism.

Do not use any glasses cleaning product containing alcohol. This will make the prism go cloudy.

Prisms for spare glasses or sunglasses

We are not able to provide extra prisms free of charge. However, you can purchase additional prisms from your Orthoptist. Please ask your Orthoptist for details. You will need to bring your spare glasses/sunglasses in to the clinic for the prism to be fitted.

How to contact us

If you have any questions or problems with your Fresnel prism, please contact the Eye Hospital.

Tel: **01865 234 567**

and listen for the option for the Orthoptic Department
(8.30am to 4.30pm, Monday to Friday)

If you need an interpreter or would like this information leaflet in another format, such as Easy Read, large print, Braille, audio, electronically or another language, please speak to the department where you are being seen. You will find their contact details on your appointment letter.

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April 2020
Review: April 2023
Oxford University Hospitals NHS Foundation Trust
www.ouh.nhs.uk/information

