

Ophthalmology department

Convergence exercises

Information for patients, relatives and carers

Introduction

Your orthoptist has asked you to do some simple eye exercises. These will help your eyes pull in together to see a near object. This is called convergence.

What is convergence?

When looking at a nearby object, our eyes move close to each other. This keeps a clear view of the object (binocular fixation). When both eyes move towards the nose together, it is called convergence. When there is not enough convergence, our eyes feel uncomfortable doing close-up work. This causes symptoms such as:

- headaches
- eye strain
- blurred vision
- irregular double vision
- tiredness (fatigue) after continued efforts at close-up work

The orthoptist will show you some simple exercises to help improve convergence and relieve these symptoms.

Please make sure you wear any glasses that you would use for close distances when doing these exercises. Also, allow your eyes to relax for a few minutes after doing the exercises, by closing them or looking in the far distance.

Step one: pen convergence (smooth convergence)

1. Hold a target, such as the point of a pencil or a small picture, at arm's length and slightly lower than the tip of your nose. You should be able to see the target as one single image.
2. Bring the target slowly and steadily towards the tip of your nose.
3. Try to keep this target clear, and as a single image, at all times.
4. The 'break point' is when one eye turns outwards, and you see two images, or the target appears to jump to the side.
5. Aim to keep the target single for as long as possible, and just before the 'break point' hold fixation on the target for 10 seconds.

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6. You are aiming to keep the target as a single image up to the tip of your nose. This is normal convergence.

Repeat this procedure for _____ minutes _____ times a day.

Step two: jump convergence

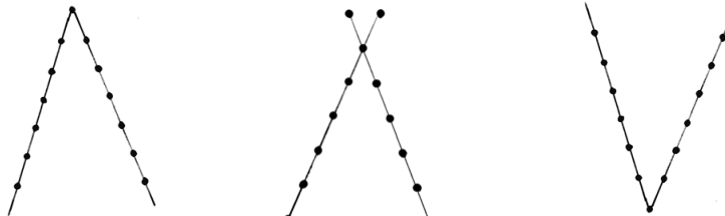
Basic method

1. Look into the distance at a target and then back at your near target, which could be the point of a pen or small picture.
2. When looking at your distance target, slowly bring the near target closer to your nose in small steps. Repeat the process.
3. Try to always keep this near target single and for as long as possible just before the 'break point' (see pen convergence exercise above).

Repeat this procedure for _____ minutes _____ times a day.

Dot card method

The orthoptist will give you a card with dots on it.



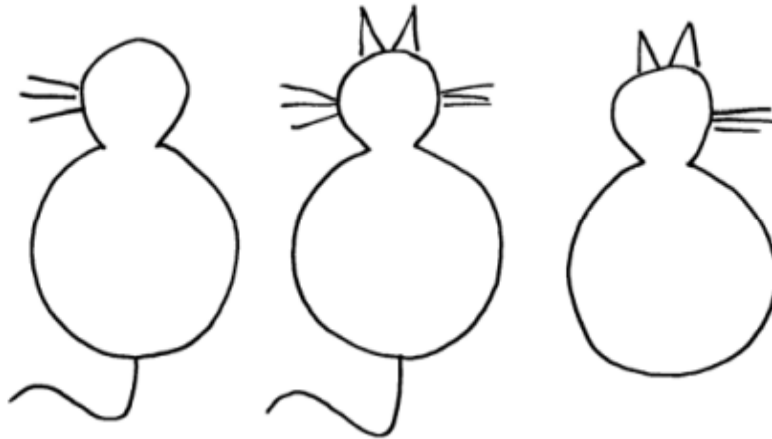
1. Hold the card with the dots on the tip of your nose and sloping away from you.
2. Now fix your gaze on the furthest dot and try to make it single. The two lines should join at the top and appear as an upside down letter V.
3. Now move your gaze to the second from furthest dot, making sure you can also make this single. The dot in front and behind of this dot will appear as double, giving you the appearance of a letter X.
4. Each dot should be seen single and clearly for the count of 5 seconds before moving on to the next dot.
5. If the two lines separate or the dot you are focusing on become double, move back to the previous dot, and try again.
6. Once the dot nearest your nose has been reached and you are able to maintain a single clear dot you have successfully completed the dot card exercise. The lines should now appear as a letter V.

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7. Dot cards treat convergence insufficiency more effectively than simple pen convergence exercises by ensuring correct alignment of your eyes.

Repeat this procedure for _____ minutes _____ times a day.

Stereograms (cats/buckets)

1. Hold the stereogram card at arm's length at eye level.
2. In your other hand, hold a pen midway between the card and your nose.



3. Three images should be visible on the card. If you can see four images, the position of the pen needs to be adjusted until you see three images.
4. The middle image should be a complete cat with ears, tail and whiskers, and the bucket should appear in 3D form.
5. Once the middle image is achieved, try to make it as clear as possible. This will be difficult at first but will become much easier with practice.
6. Once stereograms can be performed with ease you can try removing the pen and attempt to view the complete middle cat/3D bucket without it.

Repeat this procedure for _____ minutes, _____ times a day.

How often should I do these exercises?

These convergence exercises should be performed little and often. It is important that after each exercise session you relax your eyes by closing them or looking at a faraway object for a short while.

Who can I contact for more information?

If you have any queries, please do not hesitate to contact the orthoptic department:

For adult enquiries:

Western Eye Hospital orthoptic department: Call **020 3312 3256** (08.30 – 16.30, Monday to Friday, except public holidays).

For children's enquiries:

St Mary's Hospital children's outpatients: Call **020 3312 7683** (08.30 – 16.30, Monday to Friday, except public holidays).

For emergencies

Western Eye Hospital emergency department: Call 020 3312 3247 (08:00 – 22:00, Monday to Sunday)

How do I make a comment about my visit?

We aim to provide the best possible service, and staff will be happy to answer any of the questions you may have. If you have any **suggestions** or **comments** about your visit, please either speak to a member of staff or contact the patient advice and liaison service (**PALS**) on **020 3312 7777** (10.00 – 16.00, Monday to Friday). You can also email PALS at imperial.pals@nhs.net The PALS team will listen to your concerns, suggestions or queries and is often able to help solve problems on your behalf.

Alternatively, you may wish to complain by contacting our complaints department:

Complaints department, fourth floor, Salton House, St Mary's Hospital, Praed Street
London W2 1NY

Email: ICHC-tr.Complaints@nhs.net

Telephone: **020 3312 1337 / 1349**

Alternative formats

This leaflet can be provided on request in large print or easy read, as a sound recording, in Braille or in alternative languages. Please email the communications team:
imperial.communications@nhs.net

Wi-fi

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