

Oxford University Hospitals **NHS**
NHS Trust

Oxford Eye Hospital

Convergence Weakness Eye exercise programme

Information for patients



This leaflet explains the problems associated with a weakness of convergence and how it can be helped with a course of eye exercises.

Convergence is the ability to direct both eyes at a near target as it approaches. Good convergence is important for all near tasks (such as computer work) and enables us to read comfortably. If you have reduced convergence you may have symptoms such as:

- blurred vision
- headaches after reading or other close work
- jumbling of print
- double vision for near tasks.

Weakness of convergence can be improved by exercises.

There are 3 stages to the exercises.

Stage 1 – Smooth convergence

- Choose a detailed target (the Orthoptist may have given you a stick for you to attach a small picture or some magazine print). Hold this at eye level in front of you, at arms-length distance.
- The **aim** is to keep the target as one image for as long as possible, as you bring it gradually closer.
- Slowly move the target towards your nose.
- When you see two images this means your convergence has failed and your eyes have stopped working together. You should try hard to join the two images by intensely focusing. Once they have become one image again continue bringing the target closer.
- When you are unable to join the images together for a second time, move the target back to arms-length and start again.

- You should aim to be able to keep a target as a single image until it is at a minimum distance of 10cm away from your nose – this is the normal convergence range.
- The Orthoptist may give you a 'Dot Card' to enhance this exercise. They will explain how to use this.

Stage 2 – Jump convergence

This exercise helps with your ability to change focus from a target near you to a distant target and back again.

When your smooth convergence has improved you need to move to this exercise.

- Start with the near target at about 20cm away from your nose. Look at this target for about 5-6 seconds. Then look at a target in the distance for about 2-3 seconds. This target should be about 3 metres away (on the other side of the room or out of a window). Then look back to the near target.
- Move the near target gradually closer until you can change focus from a near distance of around 10cm.

Stage 3 – Voluntary convergence

This is the final stage of the convergence exercises and it teaches you to 'cross your eyes'! This is to help you to be able to converge your eyes without the aid of a near stimulus (target). The Orthoptist will guide you on how to do this and may give you one or two 'stereogram' cards to help you master this exercise.

You will be advised by the Orthoptist how often to carry out the exercises. 'Little but often' is the best regime; practising 4-6 times a day for 1-2 minutes at a time. If you have forgotten to do the exercises during the day, do not be tempted to 'make up' for this by doing 10-15 minutes of practise in the evening – if you do this you are likely to give yourself a headache and make your eyes feel very uncomfortable.

Stage 3 – Voluntary convergence

Remember that, as with any form of new exercise, your eyes may feel more tired or uncomfortable at first. This is because you are using muscles that are not used to working as hard as they should be.

With all the above forms of convergence exercises it is important that you relax the eye muscles you have been working at the end of exercising by closing your eyes or looking into the far distance for a moment or two.

Remembering to do the exercises can be more difficult than the exercises themselves! Try to find ways of reminding yourself, for example, leaving a note on the fridge door or setting aside time to practise them at meal times.

If you have any problems please discuss these with the Orthoptist at your next visit, or telephone us on **01865 234 742**.

If you have a specific requirement, need an interpreter, a document in Easy Read, another language, large print, Braille or audio version, please call **01865 221 473** or email **PALSJR@ouh.nhs.uk**

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February 2015
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