

## PATIENT INFORMATION

# Home exercises to improve convergence insufficiency

### ***Your orthoptist has diagnosed you with convergence insufficiency***

When looking at an object close-up, the eye muscles pull both eyes smoothly inwards towards the nose. Under normal circumstances this occurs without effort and allows for comfortable use of binocular (both eyes) vision whilst doing close work.

Weakness of these eye muscles can cause problems in using both eyes together when doing close work and may lead to symptoms such as headaches, eye strain, blurred vision and double vision – this is called convergence insufficiency.

### **Convergence insufficiency exercises**

#### ***Smooth convergence***

- With your head straight, slowly and smoothly pull the target (e.g. pen) towards your nose making sure it stays single. As soon as the target splits into two, stop moving the target and using your eye muscles try to pull the double images back together to make the target single again. The sensation you will feel is one of going 'cross eyed'.
- If you can make the stationary target single again, then continue to pull it towards you until it doubles again. Repeat the process of stopping, using your eyes to make the target single and then proceeding as before.
- When you are unable to make the target single, try taking it back a short distance until it becomes one and start again. You need to work hard in this area where it doubles, as this will improve your convergence weakness.

#### ***Jump convergence***

- Hold a pen in front of your nose at arm's length and look at a distance target (approx. 3 – 4 metres away).
- Quickly look at the pen and try to make it single. Once you have managed this, look into the distance again and whilst looking in the distance move the pen slightly closer to your nose.
- Again, look at the pen and try to make it single.

- This exercise can be repeated, bringing the pen closer to your nose, until you are unable to make the pen single.

## ***Dot/ Letter card***

- Hold the card lengthways, touching the end of your nose and angled downwards slightly so you can see all the dots.
- Look at the dot furthest away and try to keep it single, as one. All the other dots should appear double and fan out towards you.
- When you can see this dot singly, hold it as one and count slowly to 10.
- Once you can do this, move to the next dot along and make it single by gently pulling the eyes together. Again, hold for a count of 10. All the other dots will look double and make a cross through the dot you're looking at.
- Continue up the line of dots towards you, making sure each one is single and hold each for a count of 10. If you cannot make a dot single go back to the previous dot and try again.



## ***Stereograms***

Stereograms all work in the same way by exercising convergence and focusing separately. It can take some practice to learn how to do them correctly!

- Hold the stereogram at arm's length and hold a pen in front of the card.
- Concentrate on the tip of the pen.
- Slowly move the pen towards you.
- Watch the pen tip all the time but be aware of the 2 stereogram pictures in the background.
- As the pen moves, the stereogram images should appear to split apart and overlap to form a third image in between. This should be when the pen is positioned approximately halfway between the card and your nose.

These are basic instructions. Your orthoptist will explain these instructions in further detail and advise you how often and for how long the exercises should be done.

It is important to relax your eye muscles after exercising. Your eyes may feel uncomfortable following the exercises, this is to be expected as the muscles you are strengthening are not used to working so hard! Keep your eyes comfortable by not practicing the exercises for longer than advised and ensuring that you rest your eyes after the exercises either by closing them, or by looking out of the window into the distance for a minute or two.

### ***If you need to speak to the orthoptist, please contact:***

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25071/V4/Ophthalmology/TSDFT/12.25/Review date 12.27