Bwrdd Iechyd Prifysgol Aneurin Bevan University Health Board

Information for patients and parents

Convergence Insufficiency

The Orthoptic Department

What is Convergence Insufficiency?

Convergence is the ability to direct both eyes inwards, towards a near object, so it can be viewed clearly and comfortably.

If convergence is insufficient, you may experience some symptoms when undertaking near activities such as reading. You may also notice that one of your eyes drifts outwards at times.

Symptoms may include: -

- Eye Strain
- Headaches
- Blurred and/or double vision
- Difficulty reading (e.g., losing concentration and losing your place)
- Closing one eye for near tasks

What is the cause?

The cause of convergence insufficiency is often unknown. Sometimes no cause is found. Symptoms may be experienced after certain lifestyle changes such as an increase in close work (e.g., studying for exams or a change of occupation) and increased stress.

Treatment

Convergence insufficiency is usually treated through eye exercises. The aim is to relieve symptoms and/or improve control of the eye that is drifting outwards.

Exercises must be done for 2-3 minutes each time, 4-5 times daily. If exercises are not done frequently enough, they will be unsuccessful.

It is important to relax your eyes after completing the exercises. You can do this by looking out of the window or closing your eyes for a few minutes. You may experience an increase in your symptoms when you first commence the exercises, however, this will start to improve if you persevere.

Your Orthoptist will review you every few weeks to monitor any improvement. The rate of improvement can vary between patients. If the exercises are done correctly as prescribed but there is little/no improvement, you may be referred to an Ophthalmologist who specialises in eye movements. They will investigate any underlying causes for your symptoms and/or suggest other treatment options such as prisms.

Convergence Exercises

Pen Convergence

1. Hold a pen/target out straight ahead at arm's length. Focus on something small on the target e.g., the nib of the pen.

2. Slowly move the target towards your nose whilst keeping a single image.

3. When the target splits into two, stop moving the target and make an effort to bring the two images together. You may feel a pulling sensation on your eye muscles when doing this. Hold this position, keeping a single image, for 10 seconds before attempting to move the target closer.

4. If you are unable to join the two images with effort, move the pen slowly further away from you until it becomes single. Hold this for seconds before slowly moving the target closer again.

5. Repeat the above steps for 2-3 minutes, 4-5 times daily.

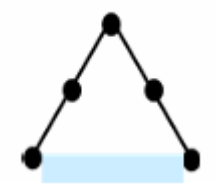
6. Remember to relax your eyes for 2 minutes afterwards.

7. The aim of this exercise is to get the pen as close to your nose whilst maintaining a single image.

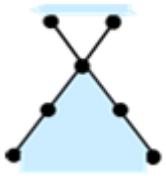
Dot Card

1. Hold the card lengthways, with one end touching your nose. The card should be held straight or angled downwards slightly to ensure you can see all of the dots.

2. Look at the dot furthest away and try to make it one dot. If you see two, try to make it a single dot. If you are able to do this, all the other dots will appear double and will fan outwards towards you. Hold this for 10 seconds, keeping it single.



3. Look at the next dot closer to you and repeat the above steps. When you see this dot as single you will start to notice the other dots form an X pattern that crosses through the dot you are focusing on.



4. Continue the above steps, working your way towards your nose up the line of dots. Make sure each dot is a single image for 10 seconds before moving to the next.

5. If you cannot make the dot single, go back to the previous dot and try again. 6. Repeat this for 2-3 minutes, 4-5 times daily. Relax your eyes for 2 minutes afterwards.

Remember:

• Persevere! At first your eyes will ache from the extra effort they are putting in, however, this will improve as you continue your exercises.

• If you usually wear glasses for reading, make sure you put them on when doing your exercises.

• Attending your appointments alone is not enough to improve your symptoms. Exercises are only successful if they are done correctly and frequently, as prescribed by your Orthoptist.

• Relax your eyes after performing your exercises. If you have any questions or concerns regarding your exercises, please do not hesitate to contact the Orthoptic department.

"This document is available in Welsh/
Mae'r ddogfen hon ar gael yn Gymraeg".