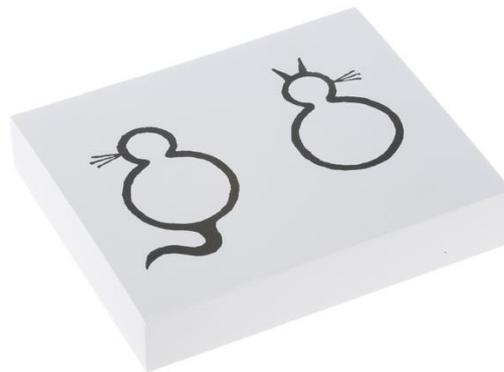
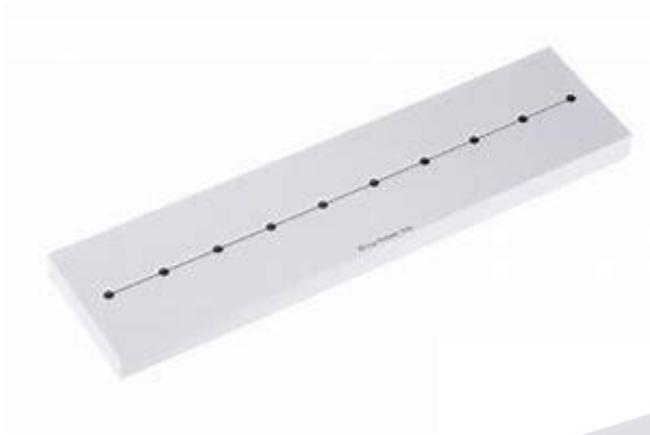


ORTHOPTIC EXERCISES INFORMATON



What is convergence?

Convergence is the ability to bring both your eyes in towards your nose at the same time.

What is accommodation?

Accommodation is the ability to focus your eyes on close print. Together accommodation and convergence are essential skills for reading.

Why are they important?

A weakness of one or other may make reading uncomfortable. Symptoms you might experience include double vision, headache, sore eyes and blurring of print.

What is treatment?

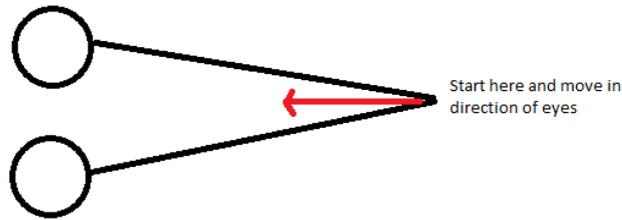
The Orthoptist will advise simple exercises that will strengthen your eyes and relieve your symptoms. They will advise you whether to wear glasses when carrying out your exercises and how frequently you should be carrying them out.

All Exercises have to be carried out on a daily basis for a few minutes each time, several times a day. The Orthoptist will specify this for you. You may feel discomfort doing the exercises but this is a good sign- it means you are exercising the weak muscles. Once you have completed your exercises close your eyes or look out of a window to allow your eyes to relax for a few minutes.

Pen Convergence

The object of the exercise is to be able to bring the pen as close as close to our nose as possible while maintaining one image. This should improve your muscle control.

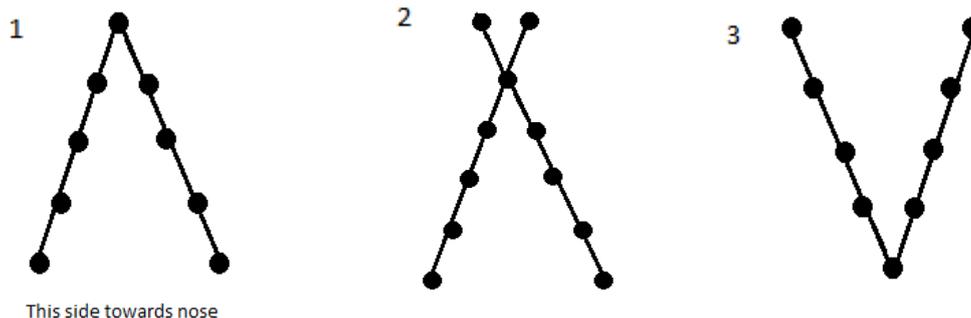
- Holding the pen at arm's length and in a slightly depressed position, focus on the tip of the pen. Ensure both eyes are open.
- Bring the pen slowly towards your nose whilst keeping one single pen at all times.
- When the pen becomes two, move the pen back slightly to achieve one image again.
- Repeat the exercise.



Dot Card (convergence)

The purpose of this exercise is to make and maintain a single dot of the card.

- Hold the card flat so that one end is touching the end of the nose
- Ensure the card is held in a slightly depressed position and you have both eyes open
- Look at the furthest dot, making sure you see it clearly. It will be viewed as a single dot. You may notice other dots are double, this is normal. It will also form an 'A' shape (as seen in figure 1 below).
- Now look at the next dot closer to your nose. This dot should appear single. The dots in front and behind will go double and will make a 'X' shape (as shown in figure 2).
- Continue to do this until you can focus on the dot closest to your nose and keep it single. Once reached nose it will appear like a 'V' shape (as shown in figure 3).



(Adapted from Scottish Orthoptic Practice Development Group – March 2009.
Convergence and Accommodation Information Leaflet)

Accommodation Card (on reverse side of dot card)

- Turn the dot card over and repeat the exercise above using the letters instead of the dots making each letter clear as well as single.
- Only difference for this exercise compared to convergence is you will have been advised whether to carry it out both eyes open and/or one eye at a time (by covering one eye).

Accommodation Push up exercises

****For this exercise you require a stick with letters/writing on it. This will have been provided by the Orthoptist or you may have been advised on how to make it yourself.**

- Start by holding the stick with letters and writing on it.
- Hold the stick at an arms length and focus on the smallest letters you can read
- Slowly move the stick towards your eyes, keeping the letters clear
- When the letters become blurry stop and try and make the letters clear
- If they don't become clear move the stick away from eyes until clear and then slowly start moving towards eyes again, with the aim of keeping the letters/writing clear

Note:

- *The frequency of how often per day you should carry this out will be advised by your Orthoptist. Do not exceed a maximum of 2-3 minutes per time you do the exercise.*
- *The Orthoptist will have advised whether to carry this out both eyes open and/or one eye at a time (by covering one eye)*

Flipper lens Exercise

The aim of this exercise is to improve your ability to keep things in focus and to maintain having these things in focus when changing from one distance to another.

Near method:

- Select the smallest reading print you can see clearly at arm's length.
- Once in focus, hold up the lenses in front of your eyes and re-focus to make the print clear.
- One "Cycle" is when you can look through the lens and make the print clear and as quickly as possible remove the lens and keep the print clear.
- Repeat this exercise for a minute and count how many "Cycles" you can achieve. A normal value is 16-20.

Distance method:

- Repeat above but with a distance print (3 – 6 metres away) which is small enough to make your eyes have to focus, e.g. writing on a clock / computer

Note:

- *This exercises can be carried out by looking at both a near or distance object (you will have been advised by your Orthoptist in regards to whether you should be carrying it out at near, distance or both).*

