

If you require any further information please contact:

Orthoptic Department (St Helens & Whiston)  
Telephone: 01744 646816

Orthoptic department (Southport, Formby & Ormskirk)  
Telephone: 01695 65680

Whiston Hospital  
Warrington Road,  
Prescot, Merseyside, L35 5DR  
Telephone: 0151 426 1600

St Helens Hospital  
Marshalls Cross Road,  
St Helens, Merseyside, WA9 3DA  
Telephone: 01744 26633

Southport Hospital  
Town Lane, Kew,  
Southport, Merseyside,  
PR8 6PN  
Telephone: 01704 547 471

Ormskirk Hospital  
Dicconson Way, Wigan Road,  
Ormskirk, Lancashire, L39 2AZ  
Telephone: 01695 577 111

# Orthoptic exercises convergence insufficiency

## Patient information leaflet

If you need this leaflet in a different language or accessible format  
please speak to a member of staff who can arrange it for you.

اگر به این بروشور به زبان دیگر یا در قالب دسترس پذیر نیاز دارید،  
لطفاً با یکی از کارکنان صحبت کنید تا آن را برای شما تهیه کند.

Jeśli niniejsza ulotka ma być dostępna w innym języku lub formie,  
proszę skontaktować się z członkiem personelu, który ją dla Państwa przygotuje.

Dacă aveți nevoie de această broșură într-o altă limbă sau într-un format accesibil,  
vă rog să discutați cu un membru al personalului să se ocupe  
de acest lucru pentru dumneavoastră

如果您需要本传单的其他语言版本或无障碍格式，请联系工作人员为您安排。

يسهل الوصول إليه، يرجى التحدث إلى أحد الموظفين لترتيب ذلك لك.  
إذا احتجت إلى هذه النشرة بلغة أخرى، أو بتنسيق

## What is convergence insufficiency?

Convergence insufficiency is a weakness of the muscles that pull the eyes inwards towards the nose.

## What symptoms do these conditions cause?

- Headaches affecting the front of the head and around the eyes
- Reading difficulties
- Double vision, blurred vision or eye strain.

## What treatment is available?

Normally, eye exercises will be recommended. These exercises can be practiced at home. If exercises are carried out regularly, symptoms should improve fairly quickly. It is important to note sometimes symptoms may get worse before they start to improve.

The orthoptist will advise on which exercises are required. They will also advise how long and how often to do the exercises. You may also be booked in for a glasses test for further investigation.

### Exercise tips

- Expect to feel cross eyed and a slight discomfort; this is normal but avoid pain.
- Follow your orthoptist's instructions on how often and how long to practice.
- Always relax the eyes after completing the exercises
- Do not practice for long periods.
- Avoid exercising when you are tired or unwell.

[illegible]

## Stereograms

The aim of this exercise is to achieve a stereoscopic (3D) image of the 2 images on the card.

These exercises may take some practice to learn to do them correctly.

### How to perform the exercises

1. Hold the card at eye level at arms length with the images facing you.
2. Place a pen in front of the card between the 2 pictures.
3. Keep looking at the pen and slowly bring it forwards towards your nose. Do not look at the card. It is really important to stay focused on the pen. Hold the pen steady between your nose and the card.
4. When looking at the pen you will be aware of the card in the background. This will go double and you will see 4 images. These images should then become 3 as 2 overlap. If using the cat card, the middle image will be complete with ears, tail and whiskers. (See image below) If using the buckets the middle one will appear three dimensional.

Remember to relax the eyes after your session.



## Exercises - pen to nose

The aim is to bring the target all the way to your nose without seeing double.

### How to perform the exercises

1. Use a 'target': This may be a pen, small detailed picture, or reading print on a stick. Hold the target at arm's length, slightly below eye level. Focus on the target, ensure it appears single and clear.
2. Slowly move the target toward your nose. Keep watching it, maintaining a single image.

### What to do if the target goes double

1. Stop moving it immediately but continue to focus on it. Try to 'pull' the images together to make it single using your eye muscles (feeling cross-eyed is normal). Do not blink, close one eye, or look away.
2. Once the image is single again, continue moving the target closer. Repeat these steps each time it becomes double.
3. If you are unable to make the target single, move the target backwards slowly until it becomes single again and then continue. Do not go back to the beginning. You need to work hard around the area the target goes double.

If you notice double of the objects around you do not worry. This is normal.

At the end of your exercise session it is important to relax the eyes for a few minutes, close your eyes or focus on something distant, such as looking out of a window.

## Dot card exercises

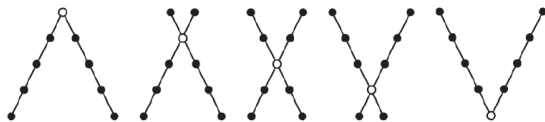
The aim of the exercise is to track the dots towards your nose keeping the dots single.

### You will need

A dot card provided by the orthoptist

### How to perform the exercises

1. Hold the dot card lengthways, touching the tip of your nose. Angle the card slightly down so all dots are visible.
2. Look at the furthest dot. If your eyes are moving correctly this should be a single dot. Other dots will appear double in a "A" shape.
3. Move to the next closest dot and pull your eyes inward to make it single. When focused on one dot, the others should appear double, forming an "X" pattern.
4. Each dot should be held single for 10 seconds before moving to the next dot.
5. Continue this process along the dots toward your nose, you will see the below shapes.
6. Once the dot nearest your nose has been reached and held single. Forming a "V" shape, you have successfully completed the exercise.



### What to do if it goes double

If the dot you are looking at goes double, try to pull the eyes in to make it single. If you are unable to do so, move to the previous dot, hold for 10 seconds, then try again. Do not go back to the beginning. You need to work hard in the area it goes double. Extra dots can be added half way between dots if required.

## Jump convergence

The aim of this exercise is to be able to move the eyes between different distances maintaining clear single vision.

### You will need

- A near target such as a pen
- A distance target such as something outside a window or the corner of a room.

### How to perform the exercises

1. Hold the pen at arms length and focus on it. Ensure it is single.
2. "Jump" your fixation to look at the distance target ensuring it is also single.
3. "Jump" your fixation back to the pen ensuring it is still maintained as a single image. If it goes double, pull the eyes in to make it single again. Hold for 5 seconds
4. "Jump" back to the fixation point in the distance and again, hold for 5 seconds. Repeat this process.
5. When this is easy move the pen slightly closer and repeat again.
6. If a single image cannot be achieved, move the pen further away until it is single and repeat from step 2.
7. You have successfully completed the exercise when both targets are seen singly and the pen is near the end of your nose.

Remember to relax the eyes after your session.