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Information for patients

Instructions for Stereograms in the Treatment of Convergence Insufficiency

The Orthoptic Department

What are Stereograms?

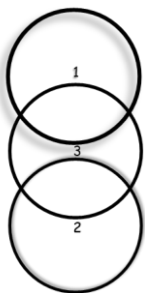
Stereograms are an optical exercise that consist of two partial images which can only be combined to form a complete one by going 'cross-eyed'. The focussing power of the eyes must also change to make this complete image become clear.

Stereograms therefore exercise your convergence (ability to cross eyes) relative to your eyes' accommodation (focussing) and help strengthen your visual system against symptoms of convergence insufficiency.

To begin stereograms, you need to be able to recognise normal double vision:

- Hold your left hand's index finger at arm's length and put your right index finger halfway between you and your left hand.
- When focussing on your right finger, your left finger should be seen as double and when focussing on your left finger, your right finger should be seen as double.

Stereogram Types



**1, 2, 3
Rings**

Fig. 4: Once cleared, the middle triplet of rings will appear to have depth.

Bucket

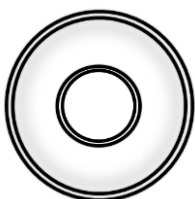


Fig. 5: Once cleared, the middle image will mimic looking into a bucket.

Cat Stereogram

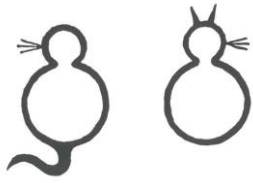


Fig. 1: Cat card



Fig. 2: Double image



Fig. 3: How the stereogram will look once the central cats are combined into one.

Perseverance is key. Do stereogram exercises for at least 2 minutes four times daily. Rest your eyes for two minutes after exercising; either close them or look out of a window. Your symptoms should improve only after consistent exercising over several weeks and even months.

Cat stereogram

1. Hold the cat card [fig.1] at arm's length and with your other hand hold a pen at the centre of the card with its nib upwards.
2. Move this pen towards your nose. Keep watching the nib and keep it single for the entire exercise.
3. You will notice that the two cats become four due to double vision [fig 2]. This will be very blurry for many of your first attempts.
4. Overlay the central two cats with each other, combining the images into one. This may require moving your pen back and forth. The middle cat should have two ears, two sets of whiskers and one tail [fig 3]. It can be difficult to appreciate all its features at first due to the amount of blur. Try to hold this for 5-10 seconds.
5. Now, remove the pen and still hold this middle image.
6. Finally, make this middle cat as clear as possible, without it losing any of its features. This may come after several weeks of trying.

1, 2, 3 Rings Stereogram

1. Start with the card at arm's length and bring the pen towards you. Concentrate on the nib and keep it single for the entire exercise.
2. Notice that there are four blurry images with three rings each. Try making the middle two images into one, you may need to move the pen backwards and forwards for this to happen.
3. Once you have a single middle image, try to appreciate that the central ring (3) is behind the others.
4. Keep trying to make the image as clear as possible and attempt to see depth.
5. Eventually, you will be able to make the image clear and it will appear to suspend in mid air with the rings coming towards you (rather than the rings being at equal depth as they are on the card). The order from nearest to furthest should be 1, 2, 3 (top, bottom, middle) [fig. 4].

Bucket (Double Ring) Stereogram

1. Using a pen if need's be, converge to a point in front of the stereogram and notice that the two double rings split into four images.
2. Combine the middle two images (you may need to adjust your convergence point/move the pen).
3. Try to make the image clear. Once it is, appreciate that the smaller inner circle is behind the larger outer one; as if you were looking down into a bucket with its rim towards you and base further away.
4. To master, try to do all this from the start without using a pen at all [fig. 5].

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