

Mirror Therapy

Patient information

What is mirror therapy?

Mirror therapy is a treatment used to improve hand movement after a stroke.

You place your weaker hand inside the mirror box. You place your stronger hand in front of the mirror. While looking at the mirror image, you move your stronger hand. This creates an illusion. Seeing the mirror image moving, tricks the brain into thinking that your weaker arm is moving normally.

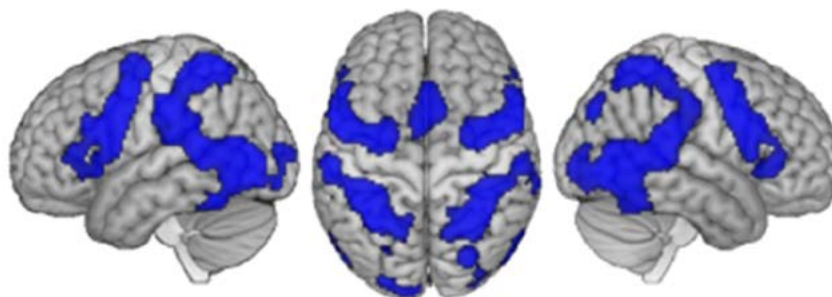


You can try to copy the movement with your hidden weaker hand, while watching the mirror.

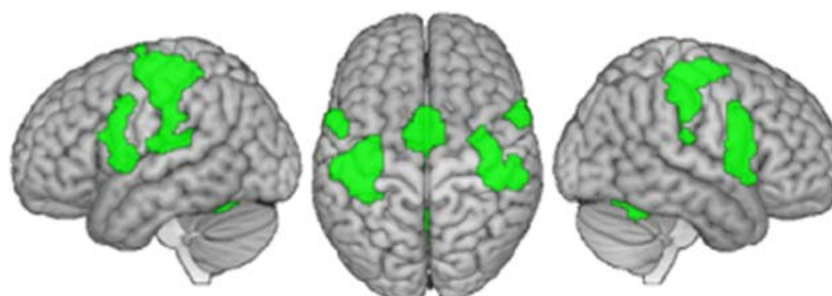
How does it work?

Research has shown that mirror therapy may help improve arm movement and neuroplasticity. This is the brain's ability to re-wire and learn how to move again. Studies have shown that watching a movement activates the same areas of the brain as actually doing the movement (Grèzes 2001). This is shown in the brain diagrams below.

Areas of brain that are active when watching movement:



Areas of brain that are active when doing the movement:



(Images taken from Hardwick et al 2018).

Because your brain is using the same areas, it means that watching the mirror image could help movement on your weaker side.

Mirror therapy is recommended in the Royal College of Physicians National Clinical Guidelines for Stroke (2023) and the NICE Guidelines (2023).

How often should you practice mirror therapy?

- 5 days a week
- 30 minutes a day. You can do two, 15 minute sessions
- For at least 4 weeks

We recommend 15 minutes of mirror therapy as a 'warm up' before your sessions with a therapist.

How to complete mirror therapy?

- Sit in a quiet area with no distractions
- Take off any watches, rings and bracelets. Cover up any tattoos or marks on your stronger arm. You want the arm in the mirror to look the same as your weaker hand.
- Place the mirror at a right angle to you. Place your weaker arm behind the mirror. The stronger arm in front of the mirror. Make sure the mirror shows a clear image and is not distorted.
- Concentrate on the image in the mirror while moving your stronger hand. Concentrate on the movement and how it feels to move. See exercises below.
- You can try to move your weaker hand at the same time as looking at the mirror.
- Do not look behind the mirror.



If you feel any of the following symptoms stop and speak to your therapist:

- New pain
- Feelings of grief or confusion
- Sweating
- Change in sensation
- Dizziness

Exercises

Basic exercises:

- Open and close your hand
- Lift your wrist up and down
- Pretend to play the piano
- Touch your thumb to each fingertip
- Turn your palm up and down

You can add objects and movements such as:

- Use a cloth to wipe the table
- Pick up a cup or bottle and move it to different parts of the table
- Roll a ball with your hand
- Turn over coins
- Pick up small objects and place it into a bowl e.g. pasta

You can change the size and weight of objects.

For sensation:

- Touch things like wallpaper, sandpaper, a hairbrush, a paint brush, a sponge, cotton wool.
- Use your fingertips to stroke the object. You can also hold the object in your hand and move it around

Videos

There are lots of videos on the internet that can help you. You can use the links below or search 'mirror box therapy' on YouTube.

Saebo Mirror Box - www.youtube.com/watch?v=AIVVHSzrvPc

Mirror Box Therapy with David Butler - www.youtube.com/watch?v=hMBA15Hu35M&t=4s



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