PEARLS

Practical Evidence About Real Life Situations

Mirror therapy improves motor function after stroke

Clinical Question	Compared with no treatment, placebo or sham therapy, or other treatments, how effective is mirror therapy (MT) in improving motor function, motor impairment, activities of daily living, pain and visuospatial neglect after stroke involving a paralysed arm or leg?
Bottom Line	MT moderately improved movement of the affected upper and lower limb and the ability to carry out daily activities for people within and also beyond six months after the stroke. MT reduced pain after stroke, but mainly in people with a complex regional pain syndrome. There was no clear effect for visuospatial neglect. The beneficial effects on movement were maintained for six months, but not in all study groups. No adverse effects were reported. MT was provided three to seven times a week, between 15 and 60 minutes for each session for two to eight weeks (on average five times a week, 30 minutes a session for four weeks).
Caveat	The studies provide moderately-reliable evidence that MT improved movement (motor function, motor impairment) and the performance of daily activities. However, there was only low reliability evidence that MT decreased pain and visuospatial neglect. This may be due to the small number of studies.
Context	MT is a rehabilitation therapy in which a mirror is placed between the arms or legs so that the image of a moving non-affected limb gives the illusion of normal movement in the affected limb. By this setup, different brain regions for movement, sensation, and pain are stimulated. However, the precise working mechanisms of mirror therapy are still unclear.
Cochrane Systematic Review	Thiere H et al. Mirror therapy for improving motor function after stroke. Cochrane Reviews, 2018, Issue 7. Art. No.: CD008449.DOI: 10.1002/14651858. CD084492.pub3. This review contains 62 studies involving 1,982 participants.

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Systematic review link:
https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD008449.pub3/full