

Motor Imagery



What is motor imagery and what are the benefits?

Chronic pain in one limb alters pathways in the brain. Motor imagery is a treatment approach that utilizes the fact that the brain can be retrained. With improvement in the abnormal pain pathways, the individual's pain is often significantly improved.

Conditions that may benefit from motor imagery include:

- Complex Regional Pain Syndrome (CRPS)
- Phantom limb pain
- Stroke
- Focal Dystonia (sustained local muscle contraction)

What are other factors to consider before beginning this treatment approach?

Motor imagery treatment requires dedication and commitment. Generally, a person begins with therapy appointments once a week for ten weeks, though this may vary slightly on an individual basis. Movement repetition is the key to success with this approach and requires frequent practice throughout the day. Movement is often done initially with the uninjured, non-painful limb. The mirror “fools” the brain into thinking that the injured, painful limb is moving.

How does motor imagery work?

This individualized treatment approach uses a computer-based program and movement in front of a mirror to provide input to the brain, muscles and nerves and with repetition “retrain the brain.” This “brain re-training” reprograms the way a person responds to movement and position of the affected extremity, reducing pain and improving function.

What does the Motor Imagery Program usually entail?

- Comprehensive evaluation
- Instruction in the basic brain processing of pain signals
- Supervised use of “Recognize,” a computer program to promote recognition and reorganization of the brain/pain response
- Mental practice of movement using exercise cue cards and/or the “Recognize” program
- Use of a mirror box, for visual observation of movement to provide additional “brain retraining”
- Gradually progressing home functional exercise and activity program

For more photos and information about mirror boxes, visit <http://www.tbpi-group.org/>.