7 Methods for Motor Recovery after Stroke

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There are a variety of methods for motor recovery after stroke that you can try at home or in the clinic. Here's a rundown of our top 7 rehab programs that can help maximize motor recovery after stroke.

1. Mirror Therapy

During mirror therapy, a mirror is placed on a table covering your affected arm and angled in such a way that it reflects your unaffected arm in place of your affected arm (pictured above). Doing rehab exercises in this manner 'tricks' your brain into thinking that your affected arm is moving like your unaffected arm, which triggers your mirror neurons to fire. Your mirror neurons are located in the same part of the brain as your motor neurons, (the neurons that operate our muscles) which is part of the reason why mirror therapy is so successful. See our 9/8/2015 article on mirror therapy for a more detailed explanation.

Mirror therapy is an excellent and effective way to boost motor recovery after stroke, and it's best used in conjunction with other rehab programs.

2. Constraint-Induced Movement Therapy

Constraint-Induced Movement Therapy (CIMT) is a rehab method that involves restricting your 'good' limb while exercising your affected limb. CIMT is a superior method for combating learned-nonuse, a phenomenon where your brain forgets how to use your affected limb if you completely stop using it.

CIMT is an intense therapy that only certain patients can benefit from, so talk with your therapist to see if Constraint Induced Movement Therapy is right for you. For more information see our article dated 7/15/2015.

3. Robot-Assisted Rehab

Robot-assisted therapy utilizes special machines that help patients complete their rehab exercises. These machines enable patients to complete more repetitions than they could on their own, which allows them to reap a much larger benefit from their rehab exercises.

Robot-assisted rehab is especially useful for upper limb rehabilitation. See our related article on "how technology is improving stroke rehab" dated 10/12/2015.

4. Brain Stimulation

During brain stimulation, wires are placed on the scalp and current stimulation is sent to the brain. The stimulation helps excite the damaged parts of the brain and boost recovery. Both acute and chronic stroke patients can benefit from brain stimulation.

5. Enriched Environment / Music Therapy

An enriched environment refers to environmental conditions that enhance sensory, social, cognitive, and motor activity. Perhaps the easiest way to enrich your environment is the simple addition of music. Music therapy helps stimulate multiple brain functions including motor function and attention. Another way to enrich your environment is the presence of friends and family who can help stimulate the brain through communication, speech, and emotion.

6. Motor Training

This one might seem obvious, but it's important to highlight the benefits of motor training for stroke recovery. Motor training exercises "Full Body Exercises" articled on 9/25/2015) help improve the connection between your brain and your muscles through the phenomenon of neuroplasticity – perhaps one of the most important concepts that every stroke survivor should know about. Neuroplasticity allows your brain to rewire impaired motor functions to new and healthy parts of the brain. A high number of repetitions during your rehab exercises will maximize your neuroplastic benefits.

7. Social Stimuli

Lastly, socializing can be considered an effective part of a stroke rehab program. Stroke survivors with high levels of social support experience more rapid and extensive recovery than socially isolated individuals. The concept of social stimuli for stroke recovery is closely tied to the benefits of an enriched environment, but socialization brings about other benefits too, like boosted motivation and positive emotion.

Putting It All Together

These 7 stroke rehab programs are all proven to help boost recovery after stroke. Some of them will be more beneficial to you than others – it all depends on your unique circumstances. We highly recommend talking with your therapist about these options so that they can help you choose your best fit. They might even have you try a combination of these programs, which can help you achieve maximum recovery.