

# The Power of Music to Help My Stroke Recovery

By Julia Schwarz

When a good song comes on the radio and you reach to turn it up, your whole body gets involved. Whether it makes you want to dance, sing along, or just tap your foot along to the beat, music drives us to move. Music has powerful effects on the brain. Many athletes use it to get through their workouts, to distract them from the pain or fatigue associated with exercise. Advertisers set their messages to a jingle, and the tune gets caught in your head for months. These powerful attributes of music also make music therapy a powerful intervention in stroke recovery.

## **What are music interventions?**

A music intervention is any therapy that uses music to help someone improve their mental or physical health. Music therapy can be useful for individuals with various needs, but specific interventions have been developed for those recovering from stroke. For example, these interventions might use the rhythm of a song to help with walking, playing instruments to improve movement, singing to improve speaking, or listening to improve pain management, mood and thinking.

## **Are they proven to work?**

There are many different types of music interventions. Some have been found to work well for certain aspects of stroke recovery, and others have not been found to have an effect (1). Two of the most effective music interventions for stroke recovery are described below so you can look into using them:

### *“I Walk the Line”*

Rhythmic auditory stimulation (RAS) is a type of intervention that uses music with a strong rhythm to help improve walking speed. It has proven to be effective in people recovering from

stroke. Interestingly, it is not simply the beat that leads to improvement. Studies with only a metronome creating a beat have been done and not shown as effective results. The music itself is also essential in this therapy. Beyond the physical effects of RAS, it also has positive effects on mood in those recovering from stroke, and particularly those struggling with post-stroke depression. After participating in RAS programs, individuals have improved their walking, and report better moods and higher quality of life (1).

### *“Express Yourself”*

Music gives many people the power to express themselves outside the confines of regular speech. It also has been shown to help people who have lost the ability to understand or express speech to regain those skills. By listening, singing and playing music, music interventions can help people recovering from stroke learn to express themselves through words once again. Melodic Intonation Therapy (MIT) is a type of therapy that involves repetitive singing of short sentences and hand-tapping to the rhythm. It has been shown to help participants regain their ability to produce words after stroke (1).

### **How does this work?**

Music affects many parts of the brain. Some songs just make you want to get up and dance. Music, and specifically rhythm, stimulate the parts of our brains that control movement. This is one reason people believe music therapy may help improve walking in people who have lost their ability to walk.

Music also has a repetitive structure, which sometimes can drive you crazy when you can't get a song out of your head. These repetitive structures are also helpful in forming memories and reconnecting the parts of your brain that allow you to speak. Finally, music can be relaxing. When listening to music, the brain releases chemicals that can improve pleasure and alertness and decrease anxiety, which can explain why music can help improve mood and quality of life.

### **How can I participate in music therapy?**

A variety of therapists can be trained in music therapy, but music therapists specifically have been shown to help people recovering from stroke improve the most. Music therapists are trained in using music to improve mental and physical health. You can find a provider in your

area using this website run by the American Music Therapy

Association: <https://netforum.avectra.com/eweb/DynamicPage.aspx?Site=AMTA2&WebCode=IndSearch>

### **How can I participate in musical therapy research?**

If you are interested in enrolling in a clinical trial on music interventions for people who have had a stroke below are trials currently enrolling participants in the USA and Canada:

[Pittsburgh, PA - Click Here](#)

[Birmingham, AL - Click Here](#)

[Toronto, ON - Click Here](#)

### **Sources**

1. W. L. Magee, I. Clark, J. Tamplin, J. Bradt, [Music interventions for acquired brain injury](#).

[Cochrane Database Syst Rev 1, CD006787 \(2017\)](#).