

## **Rhythmic Learning for co-ordination & movement control, including music therapy**

Rhythmic entrainment is mentioned very frequently in reports of methods to assist those who struggle to manage their motor skills. Most of these are highly technical! The following snippet comes from an American organisation, the National Center for Biotechnology Information, *Frontiers in Psychology* 2014. It's a little easier to follow -

*In the early 1990s it was shown that the inherent periodicity of auditory rhythmic patterns could entrain movement patterns in patients with movement disorders. Physiological, kinematic, and behavioural movement analysis showed very quickly that entrainment cues not only changed the timing of movement but also improved spatial and force parameters. Mathematical models have shown that anticipatory rhythmic templates as critical time constraints can result in the complete specification of the dynamics of a movement over the entire movement cycle, thereby optimizing motor planning and execution. Furthermore, temporal rhythmic entrainment has been successfully extended into applications in cognitive rehabilitation and speech and language rehabilitation, and thus become one of the major neurological mechanisms linking music and rhythm to brain rehabilitation. These findings provided a scientific basis for the development of neurologic music therapy.*

<https://rhythmic-learning.co.uk/>