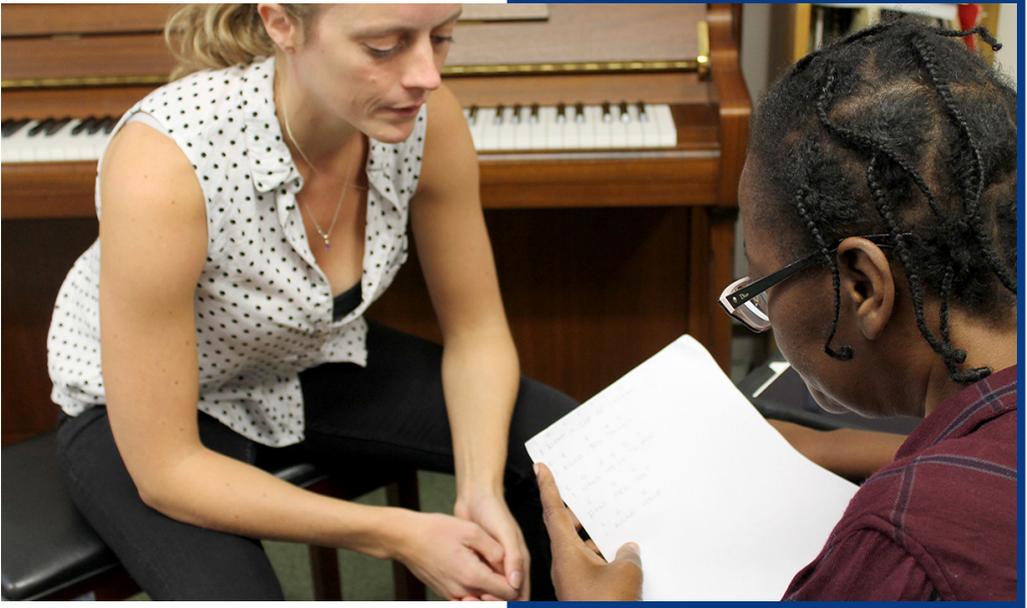


# Music therapy at the Royal Hospital for Neuro-disability



Royal Hospital for  
Neuro-disability



## What is music therapy?

Music therapy is a clinical intervention involving the use of music as a rehabilitation tool, helping physically, emotionally and socially. It provides a process through which a person can be supported to communicate and express themselves. It is not dependent on musical skill or background.

### Music therapy and neuro-disability

Music is processed in many parts of the brain, which makes it an excellent tool for helping people living with a neuro-disability.

	Some causes of neuro-disability	Music therapy can help with
Acquired Brain Injury (ABI)	Traumatic brain injury (TBI) Infection Stroke Hypoxia*	Assessment  Neuro-rehabilitation
	Disorders of consciousness	Assessment (MATADOC)
Neurodegenerative conditions	Huntington's disease (HD)	Maintaining abilities  Improving quality of life

\*Hypoxia refers to a deficiency of oxygen in the tissues of the brain

## Music therapy at the Royal Hospital for Neuro-disability

At the Royal Hospital for Neuro-disability (RHN) music therapists are key members of the multi-disciplinary team (MDT). They lead group and individual programmes and are involved in the wider MDT work.

The following three approaches are used at the RHN:

- **Restorative** – using music to regain skill and function (e.g. NMT)
- **Compensatory** – music therapy techniques are used to help patients compensate for loss of ability
- **Psycho-socio-emotional** – using music to enable emotional expression, engagement in social interaction and adjustment to disability

Music therapy at the RHN is leading the way internationally through its clinical service, research and the professional development programme. The RHN has one of the largest teams of music therapists in the world who are trained in NMT.

All RHN music therapists are registered with the regulatory clinical governing body for music therapists, The Health Professions Council, and have knowledge of NMT.

The team is made up of:

- music therapists
- music therapy assistants
- music therapy volunteers

## What happens in a session?

- **Instrumental improvisation** – using percussion instruments, voice and/or specialist technology equipment
- **Song writing** – using communication aids and/or technology to write lyrics
- **Song singing** – using singing of familiar songs to help with breathing and articulation
- **Shared listening** of pre recorded music or music performed by therapist

## Reasons for intervention

Someone living with neuro-disability may benefit from music therapy, as it can help maintain and improve skills including:

- Physical skills
- Cognitive and thinking skills
- Emotional expression
- Communication skills
- Relating to others

## Neurological Music Therapy (NMT)

NMT is a neuro-scientific model of practice, consisting of 20 standardised research-based music therapy techniques, designed to improve the lives of people living with neuro-disability. The techniques cover three overarching rehabilitation areas:

- Sensorimotor training
- Speech and language training
- Cognitive training



## Benefits of music therapy – a case study

Ms X was admitted to the Royal Hospital for Neuro-disability (RHN) in December 2017. She had a hypoxic brain injury post cardiac arrest and presented with Lance Adams syndrome. She was referred to music therapy to help strengthen her voice and to support self-expression. The use of oral motor and respiratory exercises in music therapy helped reduce her vocal tremor, using a harmonica.

“My therapist taught me how to play breathing in and out. I started with three beats and by the time we finished all the therapy sessions, I could reach eight beats. She was impressed!”

Ms X also engaged in song writing for expression of her emotions.

“The sessions helped me to come to terms with my experience, I have lots of emotions running through me and I could not express them because I could not write, so with the music, it helped me release some of my emotions and the more I wrote and song, the better I felt.”

## Research and further information

Music therapists at the RHN are regularly involved in research into the benefits of music therapy. Some recent examples include:

- **MATADOC** – Music Therapy Assessment Tool for Awareness in Disorders of Consciousness
- **MATA HD** – Music Therapy Assessment Tool for Advanced Huntington’s Disease

### For further reading on the benefits of music therapy see:

- O’Kelly, J. & Bodak, R. (2016). Development of the Music Therapy Assessment Tool for Advanced Huntington’s Disease: A Pilot Validation Study, *Journal of Music Therapy*, 53, 3, (232),
- O’Kelly, J., James, L., Palanaippan, R., Taborin, J., Fachner, J., & Magee, W.L. (2013). Neuropsychological and behavioural responses to music therapy in vegetative and minimally conscious states. *Frontiers in Human Neuroscience*, 7, doi:10.3389/fnhum.2013.00884.
- O’Kelly, J. & Magee, W.L. (2013) The complimentary role of music therapy in the detection of awareness in disorders of consciousness: an audit of concurrent SMART and MATADOC assessments. *Neuropsychological Rehabilitation*, 1-12.
- Thaut, M. H. (2008). *Rhythm, Music, and the Brain: Foundations and Clinical Applications*. New York: Routledge.
- [www.bamt.org](http://www.bamt.org)
- [www.voices.no](http://www.voices.no)

For further information on music therapy at the RHN please contact the Music Therapy Department.



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