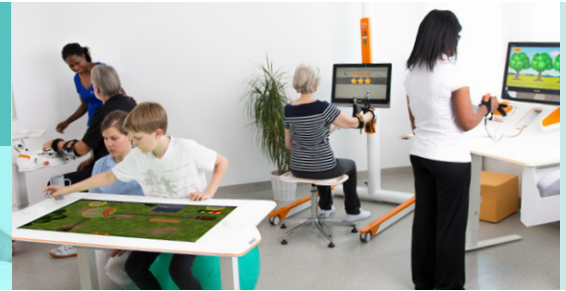




**Intensive Outpatient Neurological  
Rehabilitation Centre**



## MOTIONrehab Intensive Robotic Led Neurological & Poly Trauma Rehabilitation

**MOTIONrehab** launched the UK's first Intensive Outpatient Neurological Rehabilitation Centre augmented by robotics and virtual reality technology in April 2018 and went on to grow its number of clinics. The clinics were recognised as Centres of Excellence and given International Reference Centre Status for treatment, teaching and research.

The concept offers patients specialist one to one hands-on therapy from experienced and highly skilled clinicians. Uniquely, **MOTIONrehab** clients also spend time training with the robotic and virtual reality devices. This allows patients to practise high repetitions of movements which is critical to neuroplasticity and the optimisation of outcomes.

### What is Neuroplasticity?

The human brain is amazing! It is a highly organised and extremely skilled 'computer' that manages and controls all aspects of human movement and behaviour. Scientists and clinicians have known for years that certain parts of the brain are dedicated to certain functions. This is especially true when it comes to movement and activities. There is a strong body of evidence supporting the more you repeat or practise a movement, the bigger the area of the brain dedicated to that movement becomes ... Practise makes perfect!

This ability to learn and re-shape the brain and nervous system is called Neuroplasticity.





It is crucial that individuals have an opportunity to repeat and practise movement to cement the new connections

For relearning to take place movements need to be repeated and practised just as you would expect when learning to play a musical instrument or a new sport. This re-shaping and forming of new connections in the brain happens throughout our lifetime. After injury or illness to the nervous system there is a window of opportunity where the brain reorganises itself at a rapid rate to compensate for the damaged areas. It is commonly believed that this is in the first 2 years or so. However, after this time period the brain continues to make new connections, only at a slower rate.

## So why is Neuroplasticity important?

After injury or illness of the brain or spinal cord the aim of rehabilitation is to promote the re-wiring of the nervous system (neuroplasticity) to “relearn” the lost or damaged movements. The role of Neurological Physiotherapy aims to help individuals relearn the lost or impaired movements. However the key to adopting the newly learnt movements is practise. It is therefore crucial that individuals have an opportunity to repeat and practise movements to cement the new connections. This is difficult to achieve with traditional physiotherapy and exercise alone! Increasingly, over the last decade or so Rehabilitation Technology has provided the means for mass practise and repetition. Following the success of opening the UK’s first Robotic led Intensive Neurological Rehabilitation Centre, **MOTIONrehab** now has a growing number of clinics providing truly intensive neurological & poly trauma rehabilitation.

\*Residential option available locally offsite

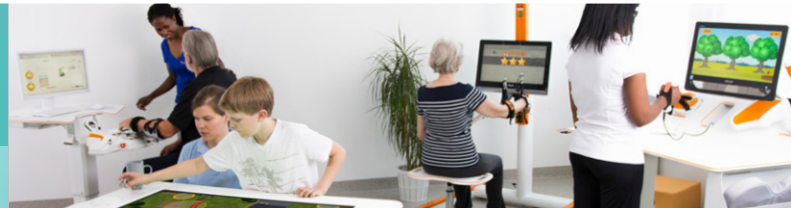


## Why Choose High-Intensity Robotic-led and Hands-on Rehabilitation

The aim of neurological rehabilitation following a stroke, spinal cord injury, head injury or other neurological conditions is to help the nervous system to re-learn the lost or damaged movements. Research supports that the more we repeat and practise a task, the more likely the brain is to re-learn and reorganise to allow this movement pattern to be restored. This relearning is a natural process which happens throughout our lifetime but after neurological injuries studies have demonstrated that the speed of this restructure is fastest in the first 2 years. Crucially, progress can still be made many years later with this approach. Our experience is patients with Poly Trauma, Chronic Pain and many other conditions can also benefit from this approach to rehabilitation.

**Higher intensity rehabilitation enables you to reach your potential**

It is therefore vital that individuals have an opportunity to repeat and practise movements to cement the new connections. This is difficult to achieve with traditional physiotherapy and exercise alone. Increasingly, over the last decade, Rehabilitation Technology has provided the means for mass practise and repetition. **MOTIONrehab** truly implements technology to enhance rehabilitation and high intensity training. **MOTIONrehab** launched it's first Intensive Neurological Rehabilitation Centre in 2018 and was the first company in the UK to offer high intensity rehabilitation programmes with specialist 'hands-on' therapy augmented by robotics and virtual reality.



## MOTIONrehab Packages


**MOTIONrehab** recognises that everybody is different and may come to us at different stages of their rehabilitation. Therefore, **MOTIONrehab** has three high intensity rehabilitation options. You will be advised which is the most clinically appropriate for you.

All of our intensive treatment packages are bespoke to individual needs. If you need to fit your rehabilitation around other commitments for example, work or school holidays, we can discuss how best to adapt the package without compromising your outcomes.

The 80 hours of therapy are secured with a deposit at the time of booking. Payment is required in full in advance of commencing treatment. Costs with Terms and Conditions are available from [info@motionrehab.co.uk](mailto:info@motionrehab.co.uk).

## Residential Option

**MOTIONrehab's** Client Services Team can support you to find local hotels or other types of accommodation. Any costs for accommodation are additional to the treatment package. **MOTIONrehab** are also able to support individuals find additional help such as nursing and care to enable them to access our services.

 MOTIONrehab	Hands On 1-2-1 Therapy	Robotics & VR Therapy	Number of days per week	Number of therapy hours per week	Number of weeks of rehabilitation	Total hours of rehabilitation	Lunch	Refreshment Breaks
OPTION 1	✓	✓	5	20	4	80	✂	☕
OPTION 2	✓	✓	4	16	5	80	✂	☕
OPTION 3	✓	✓	3	12	7	80	✂	☕



## Regain the ability to walk with LEXO

The **LEXO** is revolutionising walking rehabilitation for individuals with Stroke, Brain Injury, Spinal Cord Injury, Multiple Sclerosis, Parkinson's, Cerebral Palsy and many other Neurological Conditions as well as Poly Trauma.

The **LEXO** provides an intensive and precise training programme that works to improve walking ability, speed, strength, balance, stamina and independence.

The **LEXO** is so effective because it is an end-effector gait trainer with robotic driven foot plates that replicate a natural walking pattern. Uniquely, the **LEXO** has a dynamic body weight support system to help facilitate the natural movements around the pelvis and spine needed for independent walking. The built-in sensors give real-time feedback on an individual's performance, which is highly motivating.

The **LEXO** is based on the scientifically established principles that high repetition of movements with robotic assisted gait training results in better outcomes with 20% more patients being able to walk compared to traditional therapy approaches such as manual walking and treadmill training.

Rehabilitation with **MOTIONrehab** and the **LEXO** helps individuals to return to walking quicker and more effectively.

Works to improve walking ability,  
speed, strength, balance,  
stamina and independence.



## OMEGO

**OMEGO** is a lower limb robotic rehabilitation device for people following a Stroke, Brain Injury, Spinal Cord Injury, Multiple Sclerosis, Parkinson's, Cerebral Palsy and many other Neurological Conditions as well as Poly Trauma. The **OMEGO** provides single or bilateral leg training with a variety of functions. This means either one leg or both legs can be trained with functions such as sensory training, strengthening, stepping, cycling and coordination tasks, as well as, specific ankle training.



**OMEGO's** sensors and robotics help to identify any lack of symmetry or sensation, as well as, detecting spasticity in the movement of the lower limbs. The **OMEGO** enables the therapist to identify movement deficits and train the correct sequence of movements needed to facilitate standing, balancing and walking. The device provides feedback on performance to maximise therapy outcomes. **OMEGO** is used as part of a gait training programme to provide precise, high repetition training that is motivating and interesting. **MOTIONrehab** incorporates specific lower limb training with the **OMEGO** to help our clients achieve their goals and reach their potential.





## Improving the ability to walk with **MOTIONrehab** & **THERA-Trainer LYRA**

An individual's ability to participate in their day to day activities is often reliant on their ability to walk. Regaining the ability to walk is one of the main goals for individuals after a stroke, head injury or spinal cord injury. For people living with MS, Parkinson's or other related neurological conditions maintaining the ability to stay on their feet and keep their independence is also a great concern. The more problems people have with walking, the more devastating the consequences of their illness.

**MOTIONrehab** can change this. The **THERA-Trainer Lyra** is based on the scientifically established principles that high repetition and specific gait training results in greater therapy outcomes, with 20% more patients being able to walk compared to traditional therapy approaches.

When using the **THERA-Trainer Lyra**, an individual's feet are held in place on mobile foot plates.

The movement of the footplates replicates natural walking patterns. This enables clients to make up to 40 times as many steps compared to treadmill training or manual walking practise. The Lyra provides body weight support which opens up the possibility of walking therapy for those people who are currently unable to walk or find walking difficult and can provide intensive training in a safe and effective environment.

Whatever your ability the **THERA-Trainer Lyra** provides highly effective walking practise. It enables controlled cardiovascular training and strengthening of muscles needed for walking.

Rehabilitation with **MOTIONrehab** and the **THERA-Trainer Lyra** can help people to be gently guided back into daily life, step by step.





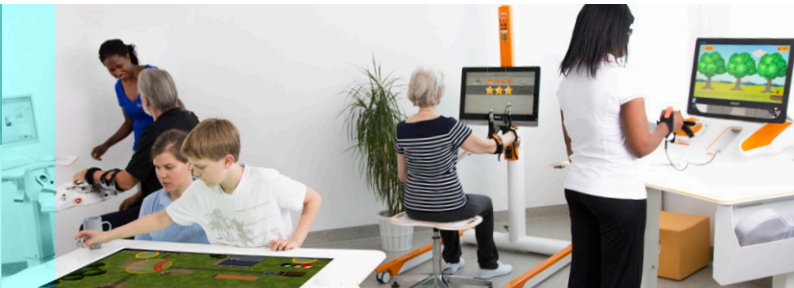
Standing, walking, hand and arm function all require one key skill, Balance! **MOTIONrehab** have integrated the **THERA-Trainer Balo** in their treatment approach to enable individuals to exercise the upper body and pelvis muscles with repetitive exercises in an environment that challenges their balance but protects them from falling.

Following a neurological injury such as stroke, spinal cord injury or illnesses like Parkinson's and other related neurological conditions, the loss of balance can be devastating. It limits an individual's ability to perform day to day activities. All too frequently individuals have falls or their risk of falling is very high. The consequence of a fall can limit or take away independence. The foundation of any rehabilitation programme starts with the ability to balance.

Using **Balo**, clients can perform dynamic balance activities that are more of a challenge and therefore more motivating.

In addition to balance training, the **Balo** allows individuals to access regular standing as part of their therapy. From a therapeutic point of view these exercises cannot be overrated as they can prevent many secondary complications experienced by people living with neurological impairment. For example, long periods of sitting or lying can result in muscle weakness, muscle shortening and pain. Using the **Balo** for dynamic standing exercises can help maintain sufficient hip, knee and ankle joint range of movement and muscle strength.

Using the **Balo** can help with circulation, blood pressure, breathing, bowel and bladder function, bone strength and increase exercise tolerance.



## Are you struggling to use your hand and arm following a stroke, spinal cord injury, head injury, or any other neurological condition?

In 2018, MOTIONrehab announced it was proud to be the first private rehabilitation company in the UK to offer the complete upper limb TYROSOLUTION for its clients.

Complete or partial paralysis of the arm limits an individual's ability to carry out everyday tasks making them reliant on others for simple tasks. Following a spinal cord injury or for people living with other related neurological conditions such as MS and Parkinson's, maximising arm strength and function is essential for independence in day to day activities. Traditionally the arm and hand have been seen as a challenge for Physiotherapists. Recovery and rehabilitation is often slow and exercises are usually uninteresting and it is difficult to motivate the patient. Scientific research has identified that high-intensity rehabilitation helps promote the best possible outcomes for hand and arm rehabilitation. Individuals should perform a high number of exercises that are motivating and challenging.

The **TYROSOLUTION** comprises of 5 devices designed to treat all aspects of upper body, arm and hand rehabilitation using robotics and virtual reality.

**MOTIONrehab** integrates the **TYROSOLUTION** with traditional physiotherapy so that individuals at any stage of their rehabilitation and with any level of disability can participate in motivating and challenging therapy. The sessions are uniquely tailored to specific individual needs to promote the best possible functional outcomes in the arm and hand so that people can participate to the maximum in their day to day lives.

## AMADEO

AMADEO is the only device that is specifically designed for rehabilitation of the hand, fingers and thumb. It has the unique ability to achieve highly intensive repetitions of hand movements to work on the flexibility of the joints and muscles to help individuals regain hand function. The AMADEO can be used for both adults and children and can target the whole hand or individual fingers.

## DIEGO

The DIEGO is a robotic-assisted device that removes the effects of gravity on one or both arms. The 'Intelligent Gravity Compensation' is designed so that individuals can replicate the 3 dimensional movements we use in daily activities. This allows even the weakest of arms to be supported to carry out challenging therapy exercises. Therefore, whatever stage of rehabilitation, individuals can start to improve the strength and control around the upper body, shoulder and elbow with motivating and engaging activities.

## PABLO

The PABLO is a motion sensor and biofeedback device (gives you information on your performance) that enables relearning of upper body, arm, hand and finger movements including grasping, reaching, pinching, and lifting.



The PABLO's unique design allows individuals to exercise in a range of positions and postures including kneeling, sitting and standing, thereby helping with balance and stability. The diversity of the PABLO allows full body exercise and provides motivating and increasingly challenging games to enhance rehabilitation outcomes.

## MYRO

The MYRO is a large scale interactive touch and pressure screen. It provides a unique therapy surface which can be used in a multitude of ways. The MYRO is height-adjustable and the work-surface can be tilted through 90 degrees. The MYRO exercises incorporate the use of everyday objects such as cups, keys and pens on a surface that responds to movement and pressure. The MYRO provides an opportunity for individuals to work on specific movement accuracy as well as cognitive training for memory, planning and concentration.

## TYMO

The TYMO is uniquely designed to allow a large variety of treatment uses. It can be used in any position including side lying, kneeling, sitting and standing. It allows individuals to specifically target muscles in the arms, legs and core to improve strength, control and balance.



## Residential Options for MOTIONrehab's Intensive Rehabilitation Centres

The **MOTIONrehab** Centres offer clients Intensive Outpatient Neurological Rehabilitation from experienced and highly skilled clinicians. Uniquely, **MOTIONrehab** clients will spend time receiving hands-on one to one physiotherapy, as well as specialist high intensity rehabilitation with robotic and virtual reality devices individually and in groups. This allows individuals to practise high repetitions of movements which in turn helps to speed up and maximise recovery.

### Accommodation & Travel

**MOTIONrehab** are able to provide assistance in finding accommodation for clients and their families who are attending the intensive rehabilitation programmes.

**MOTIONrehab** have teamed up with local hotels and other accommodation options and will offer assistance where needed to source appropriate accommodation near to our clinics. **MOTIONrehab** can also help to source Nursing and Care options whilst undertaking the intensive rehabilitation programmes.

Specialist  
high intensity  
rehabilitation with  
robotic and virtual  
reality devices.





## Things to do nearby:

**MOTIONrehab** clinics are ideally located within easy reach of shopping, dining and leisure facilities. There are lots of things to do in the surrounding area. Just ask the **MOTIONrehab** team for more information and ideas.

## How to find us Leeds:

**MOTIONrehab** is located in Asquith House, Cliffe Park, Morley, Leeds, LS27 0RY and is easily accessible with excellent motorway links, just 1.5 miles from Junction 27 of M62. There is free parking and full disabled access.

Leeds City Centre	6 miles	10 mins (car)
Leeds Bradford Airport	15 miles	30 mins (car)
Bradford	7 miles	20 mins (car)
Harrogate	22 miles	40 mins (car)
Sheffield	35 miles	50 mins (car)
Manchester	35 miles	50 mins (train)
Newcastle	100 miles	2 hours (car)
Birmingham	120 miles	2 hours (car)
London	200 miles	3 hours (train)

## How to find us Hull:

**MOTIONrehab** is located in Warners Gym, 80-86 Pickering Road, Warners Centre, Hull. HU4 6TE and is easily accessible with excellent motorway links, just 3 miles from the Hessle exit on the A63. There is free parking and full disabled access.

Hull Train Station	3 miles	13 mins (car)
Hull City Centre	3 miles	13 mins (car)
Hull Port	6 miles	16 mins (car)
Grimsby	30 miles	40 mins (car)
Doncaster Airport	45 miles	60 mins (car)
Lincoln	42 miles	60 mins (car)
Scarborough	46 miles	80 mins (car)
Leeds Bradford Airport	66 miles	83 mins (car)
London Kings Cross	155 miles	156 mins (train)