

YOUR
NEXT
STEP

Make Your Child
Realise Their Potential
with **First Step**



First Step Therapy Centre, Newry Co. Down (Ground Floor)

FIRST STEP

THERAPY

Contact us

FIRST STEP THERAPY CENTRE

Unit A, Curves Building, ITec Business Park,
52 Armagh Road, Newry, Co. Down. BT35 6DN

Email : info@first-step-therapy.com

Web : www.first-step-therapy.com

UK Freecall

0800 56 77 560 (Appointments & Enquiries)

028 3083 2865 (All Other Business)

Make Your Child

Realise Their Potential



Functional, Intensive and Repetitive Strength Training with a Sustained, Therapeutic, Endurance Programme (FIRST STEP)

The First Step Therapy Method is an original neuro-rehabilitation approach, which is made up of a number of therapies, combined in a holistic and integrated manner. The approach recognises that the body is made up of different inter-connected systems and seeks to restore the functioning of these to their optimum level.

The First Step Therapy Method can improve the functioning of individuals with neurological disorders, such as Cerebral Palsy, Global Developmental Delay, Developmental Co-ordination Disorder, Traumatic Brain Injuries, Autism, Spinal Cord Injuries and other conditions which affect the child's physical, mental, social & emotional well being.

Our team of professional & dedicated therapists provide excellent care through pioneering methods of treatment and therapy based in our modern centre in Newry, Co. Down.

The First Step Therapy Method combines the best principles of proven techniques and methods, based on the physiology of exercises and the healing functions of the human body.

Each child's therapy programme is customised with a unique selection of therapeutic modalities including:

- Suit Therapy
- Universal Exercise Unit
- Neuro Respiratory Therapy (NRT)
- Intensive Exercise & Training

Additional therapies are added which further enhance the effects of the physical and occupational therapies. These can include High Dosage Oxygen Therapy (HDOT), Nutritional Therapy, Weak Pulsed Electromagnetic Field Therapy (PEMF), Play and Multi-sensory Therapy, among others.



Our approach is reinforced by our knowledge and training in the Neuro-Developmental principles of therapy: Sensory Integration, Motor learning & Control, Fitness, Strength & Endurance Training with emphasis on optimising normal motor development.

The First Step therapy programme delivery is driven by the dedication to serve the patient's specific needs by working closely with the parents/care-givers or other family members.

We provide intensive, specific and functional therapy that will successfully enhance normal growth and development of children, which will eliminate or minimise the effect of impaired reflexes and establish normal anatomical and functional patterns of movements which are of paramount importance in a child's early development. Adults too benefit from the therapy, which can accelerate and enhance the healing process.

Suit Therapy

The First Step Therapy Method utilises various methods, one of which is SUIT THERAPY (A Soft Dynamic Proprioceptive Orthosis called the Therasuit). The Therasuit aligns the body as close to normal as possible re-establishing correct postural alignment and weight bearing which is crucial in normalising muscle tone, sensory and vestibular function (balance system).

The Therasuit serves as an external skeletal support for patients with neuromuscular disorders (such as Cerebral Palsy). It facilitates independence in the development of new gross and fine motor skills like sitting, standing, and walking. When worn during and in conjunction with physical and occupational therapy, the Therasuit can accelerate a child's progress.

The second key element is an individualised strengthening approach by using the UNIVERSAL EXERCISE UNIT established for the child and based on his or her individual needs, strengths and weaknesses. Increased strength will be reflected in the daily functional activities that usually follow, or in those that are combined with the strengthening exercises.



The Universal Exercise Unit (UEU) is used to train a child to gain the ability to isolate the desired movements and strengthen the muscle groups responsible for that movement. The Universal Exercise Unit allows one to gain range of motion, muscle and joint flexibility, as well as functional skills.

As the name "universal" suggests, the exercise unit is used in many other ways. Another way is called the "Spider Cage".

Through the system of elastic bands and a wide belt worn around the waist, the UEU provides very dynamic vertical or horizontal suspension. The goals of the exercises performed in the "Spider Cage" are to improve functional skills (sitting, crawling, standing, walking), balance, coordination, and sensory-motor integration.

The biggest goal in mind would always be promoting independent movement.

Not only is it a lot of fun for the patient, but it also substitutes for the work of two additional people.

Parallel bars installed inside the UEU allow one to combine any of the previously mentioned concepts with gait training, functional skills and transfers. It can be done either with the use of the "Spider Cage" tracking rail or independently. Very often the parallel bars are replaced with two suspended ropes, creating a version of a "suspended bridge." There is no age limit to use the UEU. The weight limit is 160 kgs (350 lbs).



Neuro Respiratory Therapy (NRT)

The third key element" is NEURO RESPIRATORY THERAPY (NRT), which is a unique, predictable, restorative therapy for children and adults with brain injury or brain abnormality. NRT develops the pattern of respiration and recovery mechanism of breathing by addressing deep core weaknesses within the bio-mechanics of the respiratory system which affects structure, metabolism, motor and cognitive function.

NRT uses gentle, rhythmical pressure to strengthen the weak tissue structures of the diaphragm and other respiratory muscles. This approach imitates changes in internal air pressures that come from normal breathing. Tissue blood-supply increases in weak muscles, allowing them to become electrically active and under voluntary control.

What does it do ?

- It reveals and treats the often hidden but complex weaknesses and deformities of the trunk caused by poor respiratory mechanics which may be the real cause behind limb abnormalities and the broad range of symptoms associated with brain injuries or brain abnormalities
- It improves blood flow through the internal organs and enhances general metabolism

- It restores increasingly better blood flow within and nutrition to the brain
- It creates increasingly normal structures leading to increasingly normal abilities
- The results are permanent.

Advantages of NRT :

A steady normalisation of respiration, growth and structure, including:

- Co-ordination, posture, balance and motor development, on to walking, swallowing, digestion and elimination
- Speech mechanics (including the structure of the trachea, pharynx and larynx), leading to clear speech
- Improved vision
- A seizure-free cerebral metabolism
- Improved cognitive abilities
- Increased emotional maturity



Scientific Research Explanation of NRT :

Respiratory development is fundamental to the development of structure, function, general cerebral metabolism in normal children. Breakdown or failure of the normal development of the respiratory system occurs after brain injury and in cases of neurological abnormality.

Weak inflexible breathing creates further tissue weaknesses within the musculo-skeletal system. This leads to a reduction in neurological connection between the weak tissue and the brain apart from basic reflexive breathing.

It is widely recognised and understood that breathing is a learnt and widely varied behaviour in individuals.

Children with neurological abnormalities do not learn to breathe normally and this affects the complex metabolic feedback systems between the body tissues, the respiratory system and the brain.

Breathing supports both the general and cerebral metabolism and the postural systems of the body via separate but integrated pathways. Restoring the strength and flexibility of the respiratory system permits the restoration of structure and the restoration of motor and cognitive abilities.

Step-by-Step restorative results of NRT :

- It restores the diaphragm and upper respiratory mechanics
- It restores volume to the chest and abdomen
- It relaxes abnormally strong muscles
- It strengthens abnormally weak muscles
- It restores the shape and form of the pelvis and shoulder girdle so that the proportions become increasingly more normal, allowing a gradual recovery of limb activity
- It restores strength to the trachea, larynx and pharynx, restoring biomechanics of speech and swallowing
- It steadily restores cerebral and general metabolism
- It creates the foundation for normal function which develops steadily as a result of increasing hours of therapy



How is NRT progress predicted ?

Structural changes steadily produce spontaneous function with hours of home exercise:

- By 200 hours NRT exercise prescription. Abnormal structure begins to reverse. Small changes in function are noticed.
- By 500 hours NRT exercise prescription. Structure and function beginning to alter more obviously.
- By 1000 hours NRT exercise prescription and beyond substantial permanent and continuous changes in structure & function.

NRT prescription also involves prescribed rest periods as well as exercise periods during the day.

Intensive Exercise & Training (IET)

As part of the First Step Therapy Method, Intensive Exercise & Training is given for 45 hours over 3 weeks. With traditional therapy, 45 hours would normally be delivered over 26 weeks (up to 2 hours per week). Children require repetition to learn new tasks; Children with disabilities require many more repetitions to learn the same task, often thousands compared to hundreds of repetitions. Intensive Exercise & Training helps to accomplish this goal. The First Step Therapy Method delivers an additional 6 hours of therapy per week for a further 16 weeks after Intensive Exercise & Training to hold the gains made over the previous 10 weeks of therapy. This again will be a customised approach based on the assessed needs of the child.

FIRST STEP THERAPY METHOD ADVANTAGES :

- Retrains the central nervous system.
- Restores past developmental abilities.
- Provides external stabilisation and posture.
- Normalises weak muscle tone.
- Aligns the body to as close to normal as possible.
- Provides dynamic correction of abnormal posture.
- Normalises (corrects) gait pattern.
- Provides multi-sensory stimulation.
- Improves balance & co-ordination.
- Decreases uncontrolled movement in e.g. Ataxia and Athetosis.
- Improves body and spatial awareness.
- Provides resistance to strong muscles to further enhance strength.
- Improves speech production and its fluency through head and trunk support.
- Promotes development of both fine and gross motor skills.
- Improves bone density.
- Helps to decrease contractures.



FIRST STEP - A DYNAMIC, FUNCTIONAL, INTEGRATED METHOD

The First Step Therapy Method combines Suit Therapy, Neuro Respiratory Therapy, and Universal Exercise Unit with Intensive Exercise & Training into 3 hours of Physical & Occupational Therapy a day, 5 days a week for 3 weeks. This intensity results in better functional improvement when compared with traditional therapeutic methods.

Additional therapies are added for a further 10 hours per week over the 4 weeks, which enhance the effects of the Physical and Occupational therapy. These can include High Dosage Oxygen Therapy, Nutritional Therapy, Weak Pulsed Electromagnetic Field Therapy, Play and Multi-sensory Therapy.

The First Step Therapy Method is designed for Children & Adults with neuromuscular disorders performed on a one-to-one basis by skilled professionals. The intense program focuses on strength & flexibility with the use of Suit Therapy, Neuro Respiratory Therapy, Universal Exercise Unit / Spider Cage and progressive resistance exercises. This intensive approach is ideal to enhance & improve the individual's developmental & functional abilities (e.g. mobility, balance & coordination, gait, etc.).



PROGRAMME SCHEDULE

Initial Home-based Method

Prior to commencement of the 180-hour clinic-based therapy programme, there is a 170-hour home-based therapy programme. This involves conditioning the child in preparation for the intensive therapy that will follow in the clinic. Though it may seem a lot of preparation, this is required in order to maximise the gains that will be made in the clinic. The home-based therapy itself is mostly passive, in that it involves the child sitting in the Therasuit or lying down on a bed while the weak pulsed electromagnetic field therapy and neuro-respiratory therapy are administered these can be administered even when the child is asleep, indeed, this is often the best time to carry out these type of therapies as the body attempts to heal itself and prepares for tomorrow's activities.

Clinic-based Programme

Morning sessions run from 9.00 am - 2.30 pm and the afternoon sessions run from 12 Noon - 5.30 pm. The clinic-based Programme is based on the patient's assessed personal needs. The morning sessions usually start with hot packs, sandbags, stretching, and massage to prepare the patient for the hard work to come. This is just like working out in the gym; you always warm up first. This will be followed by 3 hours of physiotherapy (with 15 min break half-way through) involving various strengthening and

stretching exercises, balance and co-ordination development, using different equipment such as the Universal Exercise Unit, the Therasuit and therapy balls etc. There then follows 30 minutes of miscellaneous therapy (MISC), which could involve play, or multi-sensory stimulation, a nutrition consultation could also be scheduled as part of the programme, if appropriate. Lunch is scheduled for 12.30pm - 1.00 pm which is followed by 30 minutes of weak pulsed electromagnetic therapy. From 1.30 pm - 2.30pm, High Dosage Oxygen Therapy is scheduled at the local MS Community Therapy Centre (if their assessment of the patient deems it to be beneficial to them) otherwise additional therapy such as neuro respiratory therapy is administered for the hour in question. The afternoon sessions are of the same format but with the physiotherapy and exercise coming at the end of the session instead of the beginning.

A reduced home-based Programme combines with the clinic-based therapy during this period to give a total of 146 hours during the 4-week clinic-based period. The total First Step Therapy Programme is of 350 hours duration when the home-based therapy, clinic-based therapy and the follow-up therapy are combined.



TYPICAL CLINIC TIMETABLE

Morning Session

Time	9.00	9.30	10.00	10.30	11.00	11.30	12.00	12.30	13.00	13.30	14.00	14.30	
Therapy	IET	IET	IET	15 mins.	IET	IET	IET	MISC	LUNCH	PEMF	HDOT	HDOT	Finish

Afternoon Session

Time	12.00	12.30	13.00	13.30	14.00	14.30	15.00	15.30	16.00	16.30	17.00	17.30	
Therapy	MISC	LUNCH	PEMF	HDOT	HDOT	IET	IET	IET	15 mins.	IET	IET	IET	Finish

Key:

- IET - Intensive Exercise Therapy
- MISC - Miscellaneous Therapy (Craniosacral Therapy, Sensory Integration, Music Therapy, Yoga, Play Therapy)
- HDOT - High Dosage Oxygen Therapy
- PEMF - Pulsed Electromagnetic Field Therapy (Weak Strength)



First Step Therapy Programme Format

Week	1	2	3	4	5	6	7	8	9	10	11-26
Home-Based Programme (7 Days / wk for 10 weeks)											
Therasuit - 30-40 mins / day	4	4	5	5	5	5	4	4	4	4	
PEMF - 2 x 30 mins day (Wk 1-6)	7	7	7	7	7	7	3½	3½	3½	3½	
NRT - 60 mins / day	7	7	7	7	7	7	7	7	7	7	
Total Time 170 hours	18	18	19	19	19	19	14½	14½	14½	14½	
Clinic-Based Programme (5 days /wk for 4 weeks)											
IET - 3 hrs / day (Wk 8-10)							1½	15	15	15	
PEMF - 30 mins / day							2½	2½	2½	2½	
HDOT - 60 mins / day							5	5	5	5	
Misc Therapy - 30 mins / day							2½	2½	2½	2½	
Follow-up Programme (3 days /wk for 16 weeks)											
IET - 2 hrs / day											6
Total Time 180 Hours							9	25	25	25	96

First Step Therapy Programme compared to a Conventional Therapy Programme

Programme Comparison	Conventional Method	First Step Therapy Method
Frequency	1-2 times weekly	Up to 7 times weekly
Duration	30-45 minutes/session	Up to 7 hours per day
Treatment	Group or One-to-One	One-to-One only
Parent Participation	Observation	Active participation
Follow Up	General Home Exercise Programme	6 hours/week in clinic with a professional for 16 weeks. Further 16-week blocks of therapy can be purchased. A Comprehensive Home Exercise Method on DVD can be arranged.



FIRST STEP THERAPY PROGRAMME INVEST IN THEIR FUTURE

The First Step Therapy Programme offers exceptional value for money. Imagine how you would feel seeing your loved one stand independently again or for the first time, acquire new abilities or even take some steps unaided. When you see that, we are sure you will agree, that it is a great investment in THEIR FUTURE.

A free initial consultation and free 2-hour detailed assessment by our highly skilled therapists can be arranged to determine the needs of the patient.

TAKE ACTION NOW...

To secure a place on the First Step Therapy Programme, contact us at.

**Unit A, Curves Building,
ITec Business Park,
52 Armagh Road,
Newry, Co. Down.
BT35 6DN**

United Kingdom : Freecall 0800 56 77 560
Republic of Ireland : (048) 3083 2865
International : +44 28 3083 2865

Email: info@first-step-therapy.com
Web: www.first-step-therapy.com

TRAVEL

The First Step Therapy Centre in Newry is conveniently located just off the main Belfast to Dublin road (A1). Dublin Airport is just 50 minutes away and Belfast City Centre just 40 minutes. We are also within easy reach of Newry rail and bus centres, with most cross-border trains and buses stopping in Newry - transfers from the rail and bus stations can be arranged on request.

CENTRE FACILITIES

Onsite we have a 800 sqft exercise gym where the bulk of the First Steps Programme will be delivered. We also have a personal therapy room where one-to-one therapy such as play therapy, NRT, etc can be delivered. For the patient's safety and comfort, this is covered with special non-slip, soft 14mm blue foam-rubber tiles. We also have a sensory integration room to cater for patients with Autism, ASD, etc. The room is practically all white in colour, including the same soft floor tiles (in white) as before. We also have a sports injury and pain therapy room to cater for our other physiotherapy patients. We have full ground-floor disabled access with a spacious disabled toilet area as well as a toilet in the gym area.

Kitchen facilities with fridge, kettle, microwave and toaster are available for you to use as required. You are of course free to use our therapy rooms for your own relaxation, when available, if you fancy a break from the intensity of the exercise programmes or when your child is resting.

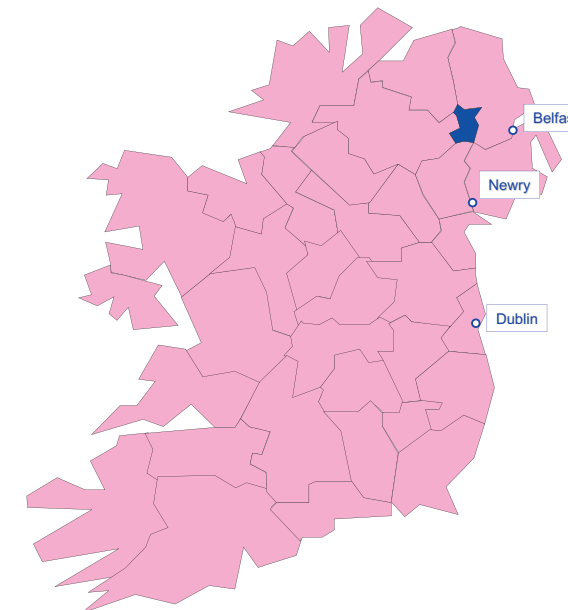
STAYING IN NEWRY

Newry has two main hotels, and several B&B's all within easy reach of the First Step Therapy Centre. Houses and apartments also available locally to rent on a short-term basis. Please feel free to contact us should you require any assistance with accommodation. There are plenty of good quality bars and restaurants also to hand should you fancy eating out.

We hope you will enjoy your time with us and we look forward to seeing you soon.

Regards,

The First Step Therapy Team.



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