

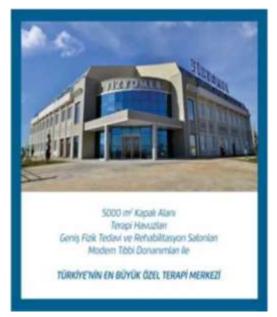
UNHINDERED PARENTS GUIDELINE



Being founded in year 2000 by Spec.Dr.Türkan Tünerir as the first private Physiotherapy and Rehabilitation Branch Center of Turkey, under the brand name of FİZYOMER PHYSIOTHERAPY AND REHABILITATION CENTER, quality health service is being provided to the inhabitants of Eskişehir and the community in the region for 15 years.

They are operating with their specialised doctors, physiotherapists, nurses, and the whole FİZYOMER team with the mission to improve the life quality of the patients.

FİZYOMER, as being the largest Private Physiotherapy and Rehabilitation Medical Center, having a total close area of 5.500 m2, together with their large physiotherapy and rehabilitation halls, theraphy pools, and modern medical unites, and with their institutional expertise of 15 years, has been presented for providing service to Turkey at the brand city of Eskişehir with Terapia concept.



SPEC. DR. TÜRKAN TÜNERİR

She has graduated from Uludağ Medical Faculty in 1985 as a Medical Doctor. In year 1992, she attained the title of Physical Medicine and Rehabilitation Specialist from the Medical Faculty of Anatolian University.

After working as a Physiotherapy Specialist at Eskişehir State Hospital for 12 years, in 2000 she founded the Private Fizyomer Physiotherapy and Rehabilitation Branch Center as a first example in our country. Within 15 years, she has attended various local and foreign congresses and studies. Besides, with her modern therapy applications at Fizyomer Branch Center she contributed to the health sector of our country. In year 2015, she introduced the first largest Private Physiotherapy and Rehabilitation Medical Center of Turkey under the brand of Fizyomer Terapia at a closed area of 5000 m2 within brand city of Eskişehir for providing service in Turkey.

CORPORATE

Mission

It is to improve the life quality of individuals within the community in the health area and to provide protective, therapeutical and rehabilitating health applications to the individuals and the community with maximum quality and economic and sustainable conditions for meeting this purpose.

Vision

Fizyomer, aims to provide maximum satisfaction to the patients and their relatives with the modern medical applications they provide and to become a health institution being taken as reference both in Turkey and in the globe with their professional team and their modern equipment.



OUR BASIS...

Quality Policy

FIZYOMER; organizes quality policies that take quality health service and safety of patients as the basis. For this purpose, they carry on their works relating with TS EN ISO 9001 Quality Management System.

Environmental Policy

While providing quality health service in line with their mission and vision, FİZYOMER has the basic principal to protect the environment. They parse wastes forming as a result of health services provided in line with waste management plan and they apply the rules relating with the elimination of medical wastes with care. They distinguish the domestic wastes that can be recycled and hand them over to the responsible institutions. They act in accordance with the local and international laws and legislations and execute what are required.

Customer Satisfaction

They adopt it as a principle to satisfy the patients and their families with the quality health service they provide and to contribute to having a community full of healthy and happy individuals.

Medical Service Values

Fizyomer, aims to establish high quality standards in the health services they provide. Within the frame of these standarts, they establish medical services, training, and academic infrastructure in order to create awareness for a healthy living in the individuals and the community.





OUR DOCTORS

Spec. Dr. Türkan Tünerir Physiotherapy and Rehabilitation Spec. Medical Director Spec. Dr. Sibel Özdinç Varol Physiotherapy and Rehabilitation Spec. Spec. Dr. Beyhan Yenerkol Physiotherapy and Rehabilitation Spec.



Spec. Dr. Dilek Koç Yılmaz Physiotheraphy and Rehabilitation Specialist



Spec. Dr. N. İrfan Ünver Physiotheraphy and Rehabilitation Specialist



Prof. Dr. Sinan Seber Orthopedics Specialist







PEDIATRIC REHABILITATION (CHILD REHABILITATION)

Pediatric rehabilitation (child rehabilitation) aims to reduce the physiological, anatomical, and environmental constraints of children with insufficiencies to a minimum level. Physiotherapy and rehabilitation plays in important role in enabling them to attain their functional and psychological independence. With all the exercises, therapies with devices, home programs, and family trainings it is aimed to improve the life quality of the child and his family.

Cerebral Palsy

Cerebral is related with the brain and palsy means paralysis. Cerebral Palsy (SP) shows itself with symptoms like disorder, posture disorder, insufficiency in movements as relating with the muscular tonus (semi tense status of the muscles). It is known that the difficulties lived through while giving birth can give rise to cerebral palsy. (like the baby's not getting oxygen) Cerebral Palsy is not progressive. It is possible to reduce the insufficiencies to a minimum level with a conscious approach and effective rehabilitation programs. Rehabilitation programs should be started as soon as diagnosis of SP is made. Because in the treatment of Cerebral Palsy, the age period between 0-7 is very important. As SP rehabilitation is commenced at an early period, it will be enabled to regulate the abnormal muscular tonus of the child, to make it easier for development of normal motor, to avoid the problems relating with muscular disorders, and to enable the child to become functionally independent.

Rehabilitation Program relating with

cerebral Palsy- Exercise Programs:

This covers enabling the child to have control of his head and his body, supporting him to use his hands, eliminating disorders related with walking, making the muscles stronger, and trying to avoid any disorders relating with the muscles and the bones.



Rehabilitation of Cerebral Palsy (Spastic Paralysis)

Cerebral Palsy (SP), is a disorder arising from a brain damage due to lack of oxygen for a period of time during childbirth. Depending on the size and place where the damage occured in the brain, different symptoms can be seen in a child. The most frequently seen one is the "spastic" type which is seen with extreme contradictions on the arms and on the legs. Apart from these, there are also athetoid and ataxic types that show involuntary movements and there is another one called hypotonical type where the contractions are few and there are also mixed types as a combinations of these. Mental incompetence can be seen in about %30 of them. In our country, the frequency of occurance of SP is around five per thousand. This frequency increases in twin or triplet births and in cases of early births.

The first symptoms are usually seen during the child development as he delays in sitting and standing up. The parents need to be very careful as regards to this subject. Development calender of the child should be known well and it should be monitored. We can summarize the basic stages of development in a healthy child:

- When he is one month old, he makes a walking action in the air.
- When he is two months old, he can hold his head straight for 5 seconds and he looks when his mother speaks.
- When he is three months old, he plays with his hands and feet, he smiles and he keeps eye contact for short intervals.
- When he is 6.-9. months old, he can sit as he is supported and he can turn to a position where his face is down,
- When he is 9.-12. months old, he can turn from a position where his face is down to a sitting position, he can crawl, he knows his name, he can make head-to-head act
- When he is 12.- 15. months old, he can walk.

If there are any delays with these developments, if there are abnormal contractions at the arms and the feet, if he has cross eyes or dulness in his looks, it is required to apply to a specialised doctor immediately. After the diagnosis is made, rehabilitation exercises should be started at the soonest. The most important particular in the treatment is to have enough stretching exercises each day and to attain straight posture and sitting position. The potential to sit is a good indicator of ability to walk. Children who can sit on their own before the age of 2 can succeed in walking on their own either with or without devices. Those who can not sit on their own till the age of 4 can rarely manage to walk. %75 of those whose both legs are spastic (diplegic) can manage to walk. Majority of those having hemiplegia, with one arm and one leg being spastic, can manage to walk until they are 3-4 ages old.

Treatment of a child having SP requires a team work. Within this team, besides the physiotherapy and rehabilitation specialist, physiotherapist, occupational therapist, mother-father, special trainer, orthopetist, orthesis specialist, and psychologist should have different duties. Rehabilitation of a child with SP is a very complex process. Physiotherapical and occupational theraphy methods, neurodevelopmental treatment, attaining functional skills, devices helping to walk that are named as orthesis, and adaptive devices make up the general rehabilitation methods. The role and responsibility of the doctor is to present the treatment options that are appropriate to the child and to try and improve the functions of the child. Treatment purposes should be specified for each child separately and the families should be given the necessary information. There are various exercise methods that are used in the treatment. The basic ones are listed below:

- Bobath method
- Communication training (Peto)
- Vojta technic
- Phelps technic
- Rood technic
- Doman technic



Among these, the most frequently used one is Bobath technic.

During the treatment, the muscular and joint problems in the child may have advanced to a level avoiding the treatment to be successful. In such cases, orthopedic surgery methods are used. Surgery can be applied to the muscles and tendons at the hips, knees, and at the elbows. For children with clubfoot, orthopedic surgeries can be applied but while taking this decision the child's potential for walking should also be considered. For children having short muscles and limited joints, the treatment method most widely used in recent years is Botulinum (Botox) injections. Relating with the subject when application is made by a specialised and experienced doctor to the selected points, the muscles may become relaxed for a period of 3-4 month and following that by applying heavy stretching exercises, it is avoided for the muscles to get shortened again.

One of the orthopedic problems that should be watched out in children with SP is scoliosis development. This situation is often seen in children whose both arms and feet are spastic at the same time. The child should be monitored from time to time by measuring angle of scoliosis and corset should be used if required.

For children with SP, various supporting devices named as orthesis can be used to facilitate them to standing on their feet and for them to walk. The orthesis which is used most often is the one taking the ankle inside and that are plastic supporters named as AFO. For children with more frequent contractions, DAFO orthesis could be used as they are made of more rigid plastic. For children who can stand up with bended knees, orthesis named as GRAFO that support the knees are used. In order to facilitate the treatment of children who can not stand on their feet without having support at home, "a standing trestle" can be used.

In addition to the classical exercise methods, in recent years some alternative treatment systems have been developed at the treatment centers in line with new technological developments. Among these systems, the most important one is the robotic walking system. This system that is known as Pediatric Lokomat is very effective in facilitating the walking training and to enable a proper walking style. In front of a virtual reality screne, the child who is equipted with robotic system makes walking exercises as if he is playing games. In this way he can do the walking exercise with the requested density and time without getting bored. On the other hand, by using treatment systems like parachute riser system, Visio gait, arm robot and other technological products, different opportunities can be created for the children to do exercises. Various activities like exercises done at home and outside in the form of games, swimming training, horseback riding help improve the child's motivation.

SP rehabilitation is a process that requires a long time and efforts. During this process, the families should be involved with the training of their child without giving up. On the other hand many families start searching for miraculous treatment ways from hearsay information with the desire to shorten the duration of this process. But as we have explained above, there is no room for miracles as relating with SP. Instead a treatment program in accordance with scientific and modern technologies should be carried out with the supervision of a specialised doctor and therapist with hard work, patience, and determination.

Beneficiary Activities:

In order to encourage a child who lies as face down to rise his head, his attention can be drawn with colurful objects that create sounds.

alle ar



If he does not raise his head, the child should be positioned as shown below. By applying pressure slowly with two fingers to the muscles surrounding the spine by starting from the neck and going down to the hips, hand is moved downwards.



If the baby can not raise his head due to his weak back and neck muscles, a blanket is placed under his chest and his shoulders just like shown in the picture. Afterwards, stay in front of your baby and talk to him. Or by placing a toy that will attract his attention in front of him, enable your baby to make his head move.



If the child faces difficulty in raising his head, lay him on your body as if he is standing straight like shown in the picture below. In this way, he will need less effort to raise his head and this will enable him to strenghten his ability to hold his head.



In order to improve a child's ability to have control of his head as he lays on his back, try to lift him up lightly by holding him from his arms. While you are doing this, as his head starts falling backwards, let him stay down once again.

Attention! If child's head is falling down like shown in the picture below, do not continue lifting him from his arms. Besides, while you are trying to lift him from his arms if his legs start stiffening, again do not continue lifting the child in this way.





As you try to lift the child by pulling him from his arms, if his head falls backward do not do this. Instead let the child sit on your lap as shown below and encourage him to hold his head straight. Repeat this often. As his strength and control improves, let the child lay on his back gradually from his sitting position. When you are doing this, pay attention for his head not to have an angle that would make him fall backward.



While you are feeding a baby who does not have a good control of his head, instead of putting the food or the nipple in his mouth, let them touch his mouth lightly and enable him to come forward to take the food himself.

Beneficial positions for carrying the baby:

Carrying the baby as shown on the picture below is helpful for improving his ability to hold his head and to have control.



For a child with cerebral palsy whose legs are crossed and whose body contracts, bending the hips and the knees and to separate the legs as shown on the below pictures is important to enable the child to relax and to have a good control.



Carrying the child in this way is helpful to let him move as his hands and head are free.



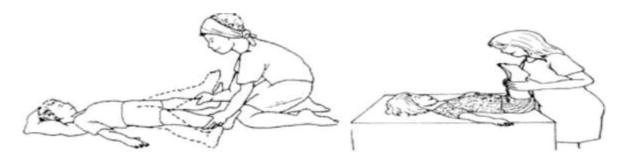
As head control of your child improves, it is important to play games with him by supporting his body tightly and by letting his head/arms to be free. Attract the attention of your child with different and interesting objects. In this way, he will turn his head to the sides and upwards and he will go on showing improvement with holding his head.



Konvansiyonel Egzersiz Programları

Conventional Exercise Programs are composed of :

- 1. Active and passive exercises for joint movement distance,
- 2. Stretching,
- 3. Strengthening exercise programs,
- 4. Exercise programs for improving cardiovascular capacity

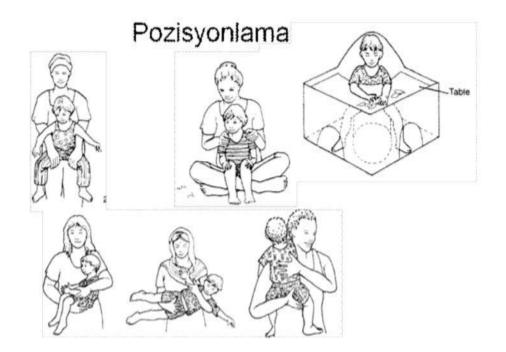




Home Program and Family Training:

These are composed of different training programs involving appropriate positioning to be done at home, teaching how to carry and to hold, teaching how to do the appropriate activities and exercises, training relating with functional independence and giving opportunities to the child, activities like getting dressed, eating, and playing games, to be able to have physical independence outside home, positioning at school, appropriate wheel chair or carrying tool, and specifying the sitting system.







Muscular Dystrophy

Genetic abnormality which causes muscular dystrophy effects muscular proteins. Muscular dystrophy which has got various types depending on the type of protein which is damaged, are diseases that are characterised by the advanced distruction of skeletal muscles. They cause muscular weakness and atrophy (getting smaller, rustiness). It is of vital importance to get the opinion of specialists in order to stop muscular dystrophy from advancing or to slow it down. In certain types of muscular dystrophy, in time physical activities can become real hard to perform but it should be kept in mind that the muscles that don't work will get atrophied even faster and the exercises recommended by the specialists should be done regularly.

Erb's Paralysis as a result of birth injuries

- Meningomyelocele
- Hereditary ataxia
- Hydrocephalus
- Motor Neurone
- Paraplegiaand Tetraplegia
- Brachial Plexus
- Myopathies
- Down Syndrome



SOMETHING FOR THE FIRST TIME AT FIZYOMER TERAPIA..



At the new division established at Fizyomer Terapia with the collaboration of Fizyomer Terapia and Sascentre, relating with neurologic and pediatric rehabilitation, neuroplasticity cerebral development training will be given by using sound theraphy.

At this new division within Fizyomer Physiotherapy and Rehabilitation Center, cerebral training programs will be realised targeting those patients with autism, cerebral palsy, sensual integration disorder, paralysis, lack of attention, dyslexia, and learning difficulties. In the rehabilitation of paralysed patients, programs that stimulate and support the cerebral renewal function ((neuroplasticity) are applied. At this center, besides neurological rehabilitation applications, innovative supporting methods that stimulate the brain with sound and music which are named as SAS (Sensory Activation Sistem) are also being used. This method helps improve the brain functions like paying attention, perception, and concentration. The application is quite simple by providing support to the person by letting him listen to the music from the earphones.

IT IS AIMED TO MAKE THEIR LIVES EASIER

SAS support methods are also used in England and some of the European countries. Sascentre which will provide services within Fizyomer Physiotherapy and Rehabilitation Center, presents cerebral training programs to help individuals having academical problems (lack of attention, dyslexia, learning difficulties etc) and to help individuals having neurological problems (autism, cerabral palsy, sensual integration disorder, paralysis, rehabilitation etc) and to let them use their potential while facilitating their everyday lives.





Characteristics of Children Having Mental Retardation

In children with mental retardation, inabilities regarding motor-mental-social-emotional development and linguistic development are seen. These inabilities are listed below:

Regarding motor development; In these children mental and emotional retardation is often seen. For example, they can not hold their heads on time, they sit late and they walk late. In addition these children may also have inabilities relating to their hand-eye and hand-foot coordinations, problems in keeping their balance, and inabilities relating with their handcraft works. Besides all these, their physical conditions are also poor. As relating with these inabilities, the independence of child with regard to his everyday activities is also effected. In the literature although attention is drawn to the inabilities of children with MR in keeping their balance or relating with their handcraft skills, the studies carried out relating with the topic are very few. Studies to be conducted in this field will help specify the problems and to search for solutions.

Regarding mental development; It is difficult for these children to learn and it takes time. They can keep their attention for a short time and they can have distractibility. It is often seen that they can not concentrate on the details of a task, they can have discractibility easily, and they can have difficulty in keeping their attention at a work done or a game that is played. They can not easily understand the directives and they have difficulty in applying them. They have aural and visual perception problems. For this reason, they have difficulties like being slow in understanding words, they confuse sounds, and they can misunderstand things.

Regarding language development; They have language problems and difficulties in speaking. Sound and articulation disorders are seen more often than in normal children.

Regarding social and emotional development; These children have inabilities regarding adaptive behaviors that play an important role in helping a child harmonise with the community. They keep away from taking responsibilities. As they have difficulties in expressing their feelings and thoughts and as they open have the feeling of being restricted, they can sometimes show extreme reactions. (destroying things, yelling, being aggressive to themselves or to others etc). They may give up quickly or stop a task before completing it. They prefer to play with children who are younger than them. In social relationships, they prefer to be dependent on others. Their friendships often last for a short time.

All these inabilities effect independent life skills of children with MR in a negative way. Just like in the training of all other individuals, it is aimed to enable the individuals with MR to go on with their lives without being dependent on others, to be sufficient for themselves, and to integrate with the community. In order to reach this purpose, the training requirements should be specified by considering the individual differences and by providing training environments meeting these requirements.

Mental retardation is classified in various ways by different communities. In today's world mainly there are three types of classification considered. These classifications are the ones made according to the intelligence level, etiological reasons, and the degree of support received.





HOW IS NEUROMOTOR DEVELOPMENT IN CHILDREN OLDER THAN 1 YEAR OF AGE?

If we would define what neuromotor development is, we would say it is related with attaining nervous and muscular control. In order for neuromotor development to be normal, nervous system and muscular system should be normal. The criteria which are considered as relating with the neuromotor development of а child can be listed as: Fine motor and adaptive development (seeing the objects, holding them with the hands, and to draw) . Language development (hearing, understanding and doing what is told,

and speaking) • Gross motor development (sitting, walking, and jumping) • Personal and social development (getting along with others and taking care of oneself) • Sensual development.



12 months • He climbs the stairs by crawling. • He can walk as his hand is held. • He can throw a round object from inside a hole • He can get up by holding somewhere. • He can sort things. • While he is sorting by holding somewhere, he can let one of his hands free while giving more weight on one side.

15-18 months• He can walk independently but his legs are apart. • He can pull and pull objects. • He can hold a toy in his hand while he is walking. • He can bend to take a toy from the ground and then he can get up. • He can walk backwards. • He can climb on the seat • He can start using a spoon. • He can put two





cubes on top of one another • He can throw a ball.

24 months. He can walk as balanced and straight

. • He can put 6 cubes on top of one another. • He can turn the pages of a book. • He can throw balls to a far distance and he can throw it from above his head. • He can open the door. • He can walk backwards or sideways in a correct way. • He can climb on the stairs independently. • He can take off his socks and his shoes on his own.



2,5 years old • He can run. • He can go down the stairs which are low. • He can jump down from a verge.
• He can put 7 or more cubes on top of one another. • He can hold a pen. • He can pull his track suit from down his hips. • He can jump a little. • He can kick a ball lightly. • He can throw small balls to a far distance with his hand.



3 years of age • He can jump dowm from a step. • He can stand on one foot for a short time. • He can stop as he is running and he can return back and turn the corners. • He can use a 3 wheel bicycle pedal. • He can wear and take off elastic track suit. • He can wash his hands. • He can eat his food on his own. • He can use a scissors. • He can line beads on a wire.



4 years of age• He can go up and down the stairs reciprocally and fast. He can climb. • He can stand on one foot for 3-4 seconds. •He can build a stair with 6 cubes. • He can use a bicycle by maneuvering. • He can bounce a ball on the floor. • He can easily use his thumb and his index finger for detailed tasks. • He can wash his hand and his face. He can brush his teeth.

5 years of age •He can walk on a line drawn on the ground. • He can get dressed on his own. He can undress.
• He can jump forward. • He can accompany fast songs according to the rhythm. • He can use his hand for fine motor skills.



6 years of age• His balance has developed well. • He can jump on one foot by counting until 20. • He can jump forward and backward. • He can jump from 3 stairs. • He can do activities like writing or fine painting. • He can kick a ball and run after it.





Space therapy is a rehabilitation method which is successfully applied in recent years for children having physical, orthopedical, and neurological disabilities. At FİZYOMER Physiotherapy and Rehabilitation Medical Center, which is the prestigious institution of Eskişehir, spce therapy system has been introduced for providing service to all children, youngsters, and adults having disabilities. Space therapy is a rehabilitation method enabling the rehabilitation process of physically disabled children to be realised with quality. It is a method that enables self-confidence of the physically disabled children to develop while giving them the opportunity to do their exercises in an environment where there is no gravity. Space therapy system enables the physiotherapist to perform more effective and efficient exercises in the rehabilitation of physically disabled children and adults. It enables the muscles to work specifically.

Space therapy is mainly used effectively in the rehabilitation of diseases like cerebral palsy, muscular dystrophia (someone having blood disease), cerebrovascular events (SVO), Post-traumatic occurances, central nervous system diseases, spina bifida, developmental retardation, sport injuries, rheumatoid arthritis, orthopedic diseases, vestibular diseases, and muscle transplantation.

It is a therapy tool which is composed of a clothing designed similar to the wear named as "Penguin Suit" which is made for cosmonots to wear in an environment with no gravity, and a special cage. By creating tension with the robes used, the gravity that is felt is being reduced. This method that is especially used in the treatment of children with cerebral palsy, enables the patient to do the activities which they can not normally perform and it also enables to reduce posture disorders.





Impact of space therapy on the children

Space therapy system accelerates the rehabilitation process of physically disabled children and adults. It enables children to do the exercises as if they are playing games. Children who refuse rehabilitation do their exercises with joy and happiness. Functions like head control, body control, crawling, and walking develop fast. Space therapy enables posture (body) disorders of children to be corrected in an effective way.

Benefits of space therapy

It develops tactile stimulation (tactile sensation), it regulates the central nervous system again, it enables external balance (external stabilisation), it normalises muscular tonus, it reduces spasticity, it corrects body posture, it enables dynamic correction, it normalises walking model, it effects vestibular system, it develops balance, it develops coordination, it reduces uncontrolled movements relating with ataxia and athetosis, it develops the feeling of being aware of the body and the space, it develops the weak muscles, and it enables resistence for developing strong muscles further.

Head control together with the body support enables to develop sound production and fluent speaking, it helps to reduce contractures, it helps development of proper hips by providing weight to hip joints in vertical plane, it helps to develop gross and fine motor skills, it develops the feeling of security, and by shortening the period of treatment, it enables the child to participate in the treatment at a maximum level.

Advantages of Rehabilitation Center

- Secure and easy usage
- Durable and long lasting
- Has no age limitation
- Portable and easy to assemble
- Helpful in measuring the progress
- Does not require overhaul
- Enables flexibility and multifunctional usage
- Contains all physiotherapic equipment inside
- Can be used for various diagnosis and diseases (application area is wide)
- Can be applied to the whole body (lower-upper extremity, body, head)
- Can work more effectively with the combination of more systems

Purpose of Space Therapy Treatment

- To expand movement variety;
- To improve muscular strenght.
- To reduce energy consumption;
- To enable learning movements and to have planning skills
- To enable various emotional integration methods
- To enable success and to develop the feeling of confidence
- To reduce pain;
- To increase mobility;
- To increase functional capacity;
- To reduce formation of contractures;
- To facilitate care taking.
- To increase active and passive movement limitations. To improve muscular strength.



- To eliminate gravity power and to help active movements of weak muscular groups
- To reduce energy consumption;
- To improve muscular strength and elasticity considerably, to reduce spasm frequency;
- To develop balance
- To improve coordination
- To focus on specific functional skills
- To enable specific working ease
- To help stabilisation of any positioning

Space Therapy (Walking Training Without Gravity–Antigravity Walking Training)

Alter-G, which is an innovative rehabilitation and sports training device in a nongravity environment, is now in Turkey for the use of paralysed patients ! (Space Treatment-Walking Training Without Gravity-Antigravity Walking Training)



What is Space Therapy (Walking Training Without Gravity-Antigravity Walking Training)?

Alter-G, which is a device providing an environment with no gravity, is being used widely in USA for the paralysed people, as relating with calcifications, sports injuries, and as relating with sports trainings and dealing with obese people. This device is being used in almost each big hospital, sports club, gymnasium, or fitness salons in America. Alter-G device is a technology developed for the walking training of astronauts by NASA and it enables an environment with no gravity up to %80 and therefore it enables the patients to perform walking functions easily and in a correct way. As a result of treatment applied in Alter-G environment, it is enabled for the paralysed patients to organise their brain again, for them to learn how to walk in the correct way, and to ensure walking is done in this correct pattern as automatically. In this way patients who can not walk normally or patients who have difficulties in walking, can walk easily in an environment without gravity and they can even run.

