Overview of Product Properties

Functional movements can also be carried out as well as the working by isolating the joints with the wearable external frame.

- Effective treatment is provided due to the change of the agonist and antagonist muscles in compliance with the physiological movement during the functional movements.

With eight different types of strength module providing torque up to 12Nm over the joints, the treatment is continued by attaching to the device easily that is suitable to the patient.

Its games providing visual feedback keeps the motivation of the patient high and assist in focusing on the treatment. The success in games also contribute positively to the patient in psychological respect.

Due to the hand exercise device integrated in the handle, both the arm and hand treatment is simultaneously carried out.

- The product is suitable for both home and clinical usage being portable as well as the exercise diversity it has.
- With any PC it can easily be connected over a single USB port and does not require mains power. Because of this the user safety is carried to the highest level.

Contact

HoustonBionics

ExoRehab UE1

Weakening of the hand and arm due to the traumatic brain damage, decrease in motor functions, providing effective progress with sustainable therapy in stroke and neurological disorders sustainable progress and improving the effectiveness of rehabilitation is possible with ExoRehab.

HoustonBionics

Because of the often repeated, task-based movements patients protecting their neural plasticity establishing new connections with ExoRehab can gain their functions again. With the exercise sets offered by ExoRehab patients establishing new connections can effectively strengthen their weakening functions.

therapists can take care more than one patient simultaneously, the throughput increased incomparably. As well as providing facility to more effective exercise compared to conventional therapy due to the software monitoring the development in patients rehabilitation becomes compatible with the latest technology. Thus rehabilitation centers have a chance to offer an unrivaled treatment services at lower fixed costs

Effective Exercises with Strength

With ExoRehab the strength modules providing the compelling forces, it provides some advantages compared to the exercises carried out with weight or string. It makes ExoRehab unprecedented with these mechanical properties it has.

Since the force direction is always towards the ground in weight exercise, the muscle groups (agonist muscles) carrying out the fundamental work does not change. Similarly in exercise carried out with string, the muscle group remains stable and in addition the compelling force would change according to the extension amount of the string.

During the movements carried out with ExoRehab agonist and antagonist (muscle group assisting the movement) muscles change place. For example during the flexion (extension) movement in elbow, while strains come to work as agonist to the biceps
Muscles and as antagonist to the triceps muscles, during the extension (opening) movement, the strains to work as agonist in triceps and antagonist in biceps occur. It is the only product that completely fulfills these functions among the similar devices.

In exercises carried out with ExoRehab, the compelling force occurring directly proportional with the movement speed of the patient increases or decreases. The treatment is started by choosing the appropriate one to the patient from strength modules with 8 different types of difficulty. High value strength modules can be attached in parallel with the strengthening in patient during the treatment process.

ExoRehab UE1 is compatible with the patients who have started to gain the active movements of the arm and hand again. In therapies carried out with ExoRehab, the patient starts exercise movements on their own and due to the integrated games they can maintain their motivation for a long time and thus highly repeated and intensive exercise can be provided.

As a result of the therapies carried out with MS patient Mehmet Beyazıt (18), increase in MRC score for muscle strengths in the right wrist extensor muscles and hand finger extensor muscles of both hands has been identified.

Asst. Dr. Dilcan Kotan