

THErapy & PRACTICE

Everyone up to the challenge!

I first came into contact with movement exercisers from medical at the Parkinson's clinic in Beelitz-Heilstätten in 1998. We initially had two THERA-Trainer exercise bikes there. As movement therapy is of the utmost priority when treating Parkinson's disease, along with medicinal treatment, we used these two devices very regularly and intensively with the patients.





I quickly recognised the advantages of device-based therapy. That is because, in this way, it was possible to treat several patients at the same time in the course of a treatment unit. The patients were able to train on the devices largely independently. This meant that I always had a firm eye on all participants and they were able to “warm up” before the individual treatment.

It was remarkable how much the Parkinson’s patients enjoyed training with the THERA-Trainer. Thanks to the motor support, movements felt easy to them again – you could see it in their faces. Little by little, my team and I began to document the fastest times of the day of our hard-working

“cyclists” in the sports room. This spurred the patients on to continue to improve. Soon we set the patients the goal of completing at least one cycling unit every day. Everyone up to the challenge found the movement exerciser to be a reliable training partner.

As the number of patients increased, so too did the number of available devices. Soon, we had three trainers from medica, which were practically being used around the clock. The cranks were turning almost continuously.

In 2005, I started a new job at Bogenhausen hospital in Munich, where my tasks included neurological early rehabilitation. I was happy to

discover that here too, one of the devices used was a THERA-Trainer.

I soon began to allow some of the worst-affected patients to train on the device. It did not take long to see positive effects: reduced spasticity, increased joint mobility and improved strength. And not only this – it was also great to see the amount of joy the patients derived from training. The patients' own family members would listen with astonishment when we told them that, for example, their father had actively and independently cycled for three kilometres. Especially those who had enjoyed cycling before their illness had no trouble motivating themselves for training with the THERA-Trainer.

At that time, I also started to provide the patients with recommendations for medical equipment. I wanted to make it possible for people who I thought would particularly benefit from this kind of activity to also have daily walking training on the device. Through dialogue with medicals, I received regular feedback on whether, for example, the medical equipment had been approved by the health insurance companies for individual patients. I was often positively surprised and was delighted when my patients received the approval to continue their training in their own homes.

I particularly remember a severely neurologically impaired patient, to whom I also recommended the movement exerciser. Having suffered a severe aortic aneurysm two years earlier, she came to the hospital to adjust her anticonvulsant medication. She suffered from severe spasticity and an extremely subluxated shoulder. As a result, she also suffered from acute pain and was completely dependent on external help in her everyday life. Training with the THERA-Trainer was extremely beneficial to her, reducing her tone and increasing her overall well-being. I had often seen that, particularly with damage to the upper motor neurone – where the central pattern generators attempt to continue to emit their impulses – the rhythmic pedalling movement of the trainer has been extremely beneficial to those affected. That was also the case for this patient. Happily, her health insurance provider approved a trainer for her at home. She was able to use the device on a daily basis and continued to improve.

Later, her husband stated that the

THERA-Trainer had been something of a godsend for them both. Whenever his wife was unwell, agitated or in pain, he would put her in the movement exerciser – even in the middle of the night. After that, her condition continued to improve significantly. The patient herself also regularly requested the “bicycle rides”, which helped her and her family to greatly improve their quality of life.

The THERA-Trainer models have changed over time, becoming more modern and equipped with colour displays with touchscreens. The biofeedback games increased the patients' motivation for training even more. For example, patients can fly around between planets in a spaceship controlled by the pedalling movement on the device, or train as a goalkeeper in a football match. Young patients in particular were immediately convinced by this idea and had a great deal of fun with it.

I now work as a physiotherapist at Klinikum Niederlausitz hospital in Senftenberg. Here too, there is a THERA-Trainer available for my day-to-day work. The head of cardiology is well informed about the findings of the latest unequivocal results of studies in device-based training therapy. He would therefore also like for almost all cardiology patients to train with the medical equipment in order to improve blood oxygenation, among other things. In addition, we may be provided with a dynamic standing frame in the near future.

It remains interesting to see whether medical's developers and engineers can continue to come up with innovations and useful products in the same vein. As yet, they have kept their promise. They have significantly facilitated and enriched my day-to-day therapeutic work.

Martin Felgentreu completed his training as a state-approved physiotherapist at Brandenburg Medical School in Brandenburg an der Havel in 1995. He has worked at several specialist neurological clinics (including Klinikum Bogenhausen in Munich). He has been working at Klinikum Niederlausitz hospital since 2014. There, he has carried out and assisted therapeutic studies with the Fraunhofer Institute and BTU Cottbus-Senftenberg. He is currently heading a study of vibration and telematics training. Felgentreu specialises in the field of neurology, with a focus on apoplexy, Parkinson's and vertigo.