

Press Release 6th March 2024

Technology-assisted therapy launched at QEF to intensify impact of neuro rehabilitation.

The Care and Rehabilitation Centre near Leatherhead, provided by disability charity Queen Elizabeth's Foundation for Disabled People (QEF), now offers technology-assisted therapy as part of their neuro rehabilitation and complex neurological care service. Expert therapy and care teams support people to regain core skills after a stroke, acquired brain injury, spinal injury or neurological illness.

The combination of motion-sensing equipment and foot board helps clients significantly improve their hand, arm and leg strength and range of movement, core stability and balance, with increased feedback to the client on their progress. Visually engaging gamification techniques also add fun and purpose to repetitive exercises prescribed by their physiotherapist or occupational therapist.

Funded by donations to the charity's Edward Guinness Appeal, the new technology is being introduced to intensify the impact of therapy by enabling precise and repetitive exercises to be practised both during and outside main therapy sessions, in a fun and engaging way. Sensors can be placed on different parts of the body depending on the prescribed exercises, such as the chin, feet, thighs, hands and arms and the balance board measures weight distribution through the feet.

For hand and arm rehabilitation sensors measure the strength of the hand and the active range of motion in the arms; movements that are frequently used in daily living skills such as eating or dressing. Sensors can also be used for gait analysis as part of a therapy programme to improve walking skills. The foot board has pressure sensors which can be used to train balance and postural control through specifically adapted gaming challenges.

As the start and end position for each exercise can be defined and the movement between them accurately tracked and recorded, a clear record of progress can be created. Individual data is recorded which can be used to monitor each client and assess the effectiveness of their therapy, as well as provide each client with detailed feedback. As this technology can also be used outside main therapy sessions the impact of personalised therapy programmes is intensified and the gamification element means that focused, repeated movements are practised in a fun and visually stimulating environment.

Lead Physiotherapist Ellie Kearney says: "this new technology-assisted therapy equipment sets QEF apart and is a fantastic addition to our range of therapy options. Everyone can benefit, residential and outpatient clients, making the impact of their therapy more intense and even fun!"

Gareth a former stroke client at QEF says *"the computer package was quite clever really, it was especially good for my balance. It measures how much I was swaying on my feet and I saw good progress. The gamification is a different angle but it is still therapy and good to do in tandem with regular therapy. It's a really good way to see how you are progressing."*

To discuss a referral for someone with funding to QEF's Care and Rehabilitation Centre email neurorehab@qef.org.uk or call 01372 841 111. Our expert teams are also available to support people on a day or outpatient basis.

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For more information please contact PR@qef.org.uk or call 01372 841 129

Notes to Editor

About Queen Elizabeth's Foundation for Disabled People

Based in Surrey, Queen Elizabeth's Foundation for Disabled People (QEF) is a charity working with almost 10,000 disabled children and adults every year. Whether it is neuro rehabilitation to rebuild a life affected by brain injury, providing mobility advice and assistive equipment, or acquiring the skills to drive a specially adapted car, QEF provides expert services that enables people to maximise their independence and achieve their potential.
www.qef.org.uk