Researchers at the University of Limerick have developed a neck rehabilitation device that can be used for the efficient, comfortable and cost effective treatment of whiplash, chronic neck pain and other neck related injuries.

Current treatment of people with chronic neck pain consists of physiotherapy sessions in some cases augmented by the use of biofeedback devices such as the biostabilizer feedback used to strengthen the neck musculature. Due to the often infrequent contact with the physiotherapist these treatments can be suboptimal. Patients greatly profit from performing exercises at home at a more frequent basis, but the problem with these exercises is that they need to be performed correctly and regularly in order to yield good results.

The new technology developed at the University of Limerick addresses issues with neck muscle rehabilitation which currently is a cumbersome, expensive process with sub-optimal outcomes.

The device sits around the user’s neck and allows the user to exercise their neck muscles. It is comfortable to wear, with minimal effect on patient mobility, and is more ergonomic than existing devices. It gives the patient complete freedom to perform the designated exercise program in the position and environment they feel most comfortable in.

The unique differentiators of this new technology versus existing solutions are many-fold:
- Improved treatment outcomes and shorter recovery time.
- Monitor exercise adherence and execution automatically.
- Provide direct feedback to the user, thus increasing the quality of exercise execution, exercise adherence and patient motivation.
- Allow for variable exercise resistance, which results in a more suitable build-up of exercise intensity.
- Allow for objective feedback on exercise execution, which is a good measure for patient progression.
- Enable physiotherapists to increase productivity and thus revenue.

The University of Limerick is interested in seeking partners to exploit the commercial potential of these technologies by entering into licensing and collaboration arrangements that mutually benefit both parties.

A patent application has been filed with the European Patent Office in Nov 2013.

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