



## Canadian researchers encourage intensive care patients to pedal towards recovery



Researchers at St. Joseph's Healthcare Hamilton, Ont., tested supine cycling on intensive care patients. (Marta Hewson)

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In bed for months on end, patients in intensive care lose muscular strength, mainly on the level of their lower limbs. To accelerate their recovery, Canadian researchers have made use of a device that allows them to pedal while lying down. The positive results of their initial study will now pave the way for future clinical trials.

For some time now, strange-looking bicycles have been a feature of the intensive care ward in St. Joseph's Healthcare Hamilton in Ontario, Canada.

Fixed to the hospital beds, these purpose-built exercycles enable patients to pedal while lying down, and in particular to strengthen their hip flexors, which are the muscles most weakened by long periods of confinement.

From October 2013 to August 2014, Dr. Michelle Kho and the team investigated the effects of in-bed cycling on 33 mechanically ventilated patients, who were otherwise able to walk.

The group of patients, whose average age was 65, pedaled for 30 minutes six days a week, and the exercise regimen was introduced within three days of their admission for respiratory failure. Cycling was prescribed for the duration of the patient's time on the ward, up to a maximum of 28 days. On average they covered a distance of nine kilometers in the course of their stay.

Researchers found that it was both safe and feasible for patients of this type with stable blood flow to engage in physical effort shortly after their admission to hospital.

The experimental project, which has been named TryCycle, will now pave the way for further clinical trials.

This research has been [published in the journal Plos One](#).

Link to article: <http://www.ctvnews.ca/health/canadian-researchers-encourage-intensive-care-patients-to-pedal-towards-recovery-1.3222358>