

## MEASURING HOW SPINAL CORD COMPRESSION AND SURGERY AFFECTS WALKING

**Patients with cervical spondylotic myelopathy (CSM), or wear and tear on the neck effects that compress the spinal cord, tend to walk more slowly. But until now little has been known about the exact changes in gait.**

Ailish McDermott, a senior physiotherapist in neurosurgery at Beaumont Hospital, has been studying gait in patients with CSM. Through this she can monitor their progress after surgery to relieve spinal cord pressure and also help identify the best rehabilitation exercises.

**“I am adding in more quantitative information about what happens before and after surgery,”** explains McDermott, who used sensors to track movement, forces in the lower limbs and muscle activity in 22 patients and in healthy controls of matched age.

She analysed the gait of the 15 patients in the study who underwent surgery, assessing them before the operation and then six months and a year later.

**“Hopefully we will be able to tease out if there are certain factors that make a patient more prone to gaining an improvement after surgery,”** she says.

**“And seeing what the muscles are doing could give a better idea of what track to go down with the rehab.”**

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