

ARTICLE

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New Device May Help Spinal Cord Injury Patients Regain Function



On behalf of Michael Epstein at The Epstein Law Firm, P.A.

Each year, the lives of thousands of people in the U.S. change forever after suffering a [spinal cord injury](#). What makes these injuries particularly severe is that they can permanently affect a person's ability to perform everyday functions without assistance. This reduced independence can not only be emotionally difficult to deal with, it can also cause significant practical problems. While many medical researchers in recent years have focused their efforts on ways to help those with spinal cord injuries to regain the ability to walk and use their limbs, others have attempted to devise ways to ease the practical challenges that patients face every day.

Recently, researchers at the University of Cambridge in the U.K. announced that they have developed a technology that allows those with spinal cord injuries to regain control of their bladders. The team provided details about their new neuroprosthetic bladder in the most recent issue of the journal Science Translational Medicine. According to surveys, regaining bladder control is one of the top priorities for those with serious spinal cord injuries.

In cases where the spinal cord is not damaged, nerves located around the bladder send signals to the brain when it is full. Urination occurs when other nerve cells relate the message from the brain to muscles around the bladder.

When a person's spinal cord is injured, however, the neural pathway between the bladder and brain can be damaged. This can make it impossible for a patient both to recognize when his bladder is full and to empty it. Without a catheter, urine can back up into the kidneys, which can lead to kidney failure.

The new neuroprosthetic device developed by researchers at Cambridge keeps track of electrical signals when a patient's bladder is filling up, when it is full and when it is emptying. Their tests, performed in rats, showed that their device could prompt emptying of the bladder through the use of electrical stimulation. Though implantation of the device in humans is likely still years away, researchers are optimistic that it will help patients regain some measure of their independence.

If you have suffered a spinal cord injury in an accident caused by another person, consider speaking to an experienced personal injury lawyer. A personal injury attorney can explain your legal rights and help you understand your options. In some cases, you may be entitled to compensation for your medical bills and lost wages. For more information, [contact an attorney today](#).