A hit-and-run victim paralysed from the waist down has stood up on his own and taken his first steps after pioneering treatment.

Rob Summers, 25, is the first patient to respond to the therapy, which involves electrical stimulation of the spinal cord.

He said: ‘This procedure has completely changed my life.’
Recovery: Rob Summers was paralysed from the waist down but has taken steps after pioneering treatment supported by Christopher Reeve's foundation.
The treatment, which took 30 years to develop, ‘teaches’ the spinal cord to control limbs and body functions independently of the brain.

It was developed by a team of scientists from the University of Louisville, UCLA and the California Institute of Technology.

Mr Summers, who is normally confined to a wheelchair, has been able to push himself up and stand for several minutes without assistance at the Frazier Rehab Institute in Louisville.

With help, he has taken repeated steps on a treadmill, and has regained some sexual and bladder function. He can also move his toes, ankles, knees and hips on command.

Scientists described the success, reported in The Lancet medical journal, as ‘a breakthrough’.

Lead author Professa Susan Harkema from the Kentucky Spinal Cord Research Center at the University of Louisville, added: 'It opens up a huge opportunity to improve the daily functioning of these individuals.'
The research was supported by the Christopher & Dana Reeve Foundation, the charity founded by Superman actor Christopher Reeve and his wife.

Mr Reeve was paralysed from the neck down in a riding accident in 1995, and subsequently campaigned tirelessly on behalf of spinal injury research. He died in 2004 aged 52.

In 2006 Mr Summers was an athlete in peak physical condition and a pitcher for Oregon State's championship baseball team.

One evening he went to get his gym bag out of his car in Portland, Oregon, when a car smashed into him before speeding away.
He suffered serious spinal cord damage which left him paraplegic but with some feeling below the waist.

He had two years of training to learn the muscle movements necessary to stand and take assisted steps. Then a device was implanted in his back to stimulate the lower spinal cord.

Mr Summers, who now lives in Los Angeles, said: 'For someone who for four years was unable to move even a toe, to stand on my own is the most amazing feeling.'
To be able to pick up my foot and step down again was unbelievable. My physique and muscle tone has also improved greatly. I believe that epidural stimulation will get me out of this chair.

He continues to teach baseball to children at summer camps.
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The researchers accept that their work may not help patients without feeling below the level of injury.

However, scientists from the University of Zurich and Pavlov Institute of Physiology in St Petersburg, Russia, said the results were 'unprecedented.'

Commenting in The Lancet they said: 'We think that this novel phenomenon of electrically enabled motor control will inspire new thinking in the future design of strategies to restore function in motor-impaired individuals.

'Harkema and colleagues achieved a level of functional recovery in a paraplegic patient that remain unprecedented.'

Professor Geoffrey Raisman of the Institute of Neurology, University College London, said: 'This is not repair, but an improvement of function of surviving tissue. It is not and does not claim to be a cure.'

The results will now need to be confirmed in a clinical trial with more participants.
Activists: Christopher Reeve in his wheelchair in 2004 after he was paralysed in a riding accident, and right, his wife Dana. The couple's charity supported the research which helped Mr Summers learn to walk again.
Campaigner: Mr Reeve, who played Superman, was paralysed from the neck down in a riding accident in 1995. He died in 2004 aged 52

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I was given a paperback called 'Nothing is Impossible' by Christopher Reeve, at Bangkok Airport, after having left my son in intensive care with a broken neck in Thailand, now home and paralysed from the chest down. It was an amazing read of courage and hope for the future, and so weird it was given to me at that particular time. Im so glad this report has come this week, a week where I enquired at the doctors as to what is happening with research here in the U.K. and almost 3yrs since my sons accident, also a sports student. I hope that somewhere there will be a cure for spinal cord injury, and it will not take decades before all can benefit from this treatment. Good Luck Rob I wish you all the very best.

- Jane Chadwick, Blackpool, Lancashire, England., 21/5/2011 03:05

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I couldn't wait to comment on this! I witnessed a miracle this morning. Watching Rob move his legs was truly amazing. What a fantastic medical team. WOW Good luck Rob Christopher Reeves would be very proud

- Jayne Titchen, Birmingham, west midlands, 20/5/2011 14:07

Click to rate  Rating  90

I was paralysed in a accident and this is amazing news. Staying positive is the key. In the future this will become widely available and give us back what we have lost. Christopher Reeve was a true inspiration, his wife and children must feel so proud.

It is a legacy of Reeve. His children must be very proud of him.

- **Ms D.Lee**, Hong Kong, 20/5/2011 11:52

WAY TO GO SUPERMAN !!!


That will be the legacy that Christopher Reeve aka Superman will leave giving hope to many others who are in this situation.


Chris Reeve's autobiography was an inspiration. He had the inner strength of any superman. Good luck to Mr Summers, may he be the first of many.

- **Baggy**, Dorset, 20/5/2011 11:06

Beware! Atos and the DWP (According to our specialist and Dept. of Wrongful Practice) will stop his disability benefits and make him get a job.


Makes me think sometimes that man is indeed weak, not super. Its through the will of the All Mighty that weak man becomes super. It makes me sad whenever I think of superman Chris Reeve and his ailment or other healthy people suddenly losing health.

- **truth seeker**, somewhere, 20/5/2011 08:54

what a fabulous legacy to leave behind,,, thankyou mr Reeve !

- **jan**, home xx, 20/5/2011 08:51
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