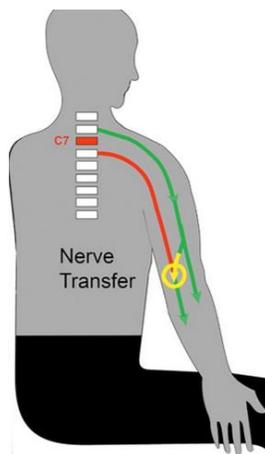


Equal-I-Zer
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Surgeons Reroute Nerves To Restore Hand Function for People Who Have Quadriplegia:



A pioneering surgical technique has restored some hand and arm movement to nine patients immobilized by spinal cord injuries according to a new study at Washington University's School of Medicine in St. Louis. The surgeons rerouted healthy nerves sitting above the injury such as the shoulders or elbows, to paralyzed nerves within the hand or arm. Once a connection was established, patients underwent extensive Physical Therapy (PT) to train their brain to recognize the new nerve signals.

The technique targets patients with injuries at C6 or C7; and consequently, it does not help patients with injuries at C1 through C5.

"Physically, nerve-transfer surgery provides incremental improvements in hand and arm function; however, psychologically, those small steps are huge for a patient's quality of life," said the study's lead author, Ms. Ida K. Fox, MD, Assistant Professor of Plastic and Reconstructive Surgery. One of the most humbling effects of a SCI is the inability to voluntarily control their bladder or bowels. *"People with spinal cord injuries cannot control those functions because their brains can't talk to the nerves in the lower body,"* said Fox, who performs surgeries at Barnes-Jewish Hospital. The study was published in an open-access paper in the October issue of the American Society of Plastic Surgeons' journal, *Plastic and Reconstructive Surgery*.

Ultimately, medical professionals hope to discover a way to restore full movement to the estimated 250,000 people living in the U.S. living with SCIs; however, until a cure is found, progress in regaining basic independence in routine tasks is paramount.

For more information, go to:

http://www.kurzweilai.net/surgeons-reroute-nerves-to-restore-hand-arm-movement-to-quadriplegic-patients?utm_source=KurzweilAI+Daily+Newsletter&utm_campaign=11f661fe27-UA-946742-1&utm_medium=email&utm_term=0_6de721fb33-11f661fe27-281952929



OGO:

Ogo is a battery powered wheelchair that has a hands-free control system. If we can get a man on the moon, then we certainly have the capability to upgrade wheelchairs. That's exactly why



one man from New Zealand, after seeing his 'mate' struggle to perform simple tasks with his old chair, took matters into his own hands. It took years of development and an ingenious reconstruction of a Segway, but Kevin Halsall unveiled the Ogo, a souped-up wheelchair.

The Ogo is set to revolutionize the industry. Just like a Segway, the active moving seat control moves the chair in the direction in which you lean. For example, you put your weight forward, the Ogo will move forward. It's completely intuitive and renders hand controls obsolete. This means your hands are completely free for anything else such as dribbling a ball, and your core muscles are constantly used to maintain your balance so they will not atrophy. And that "got the Occupational Therapist very excited," says Halsall.

Users can swap out regular wheels for larger, all-terrain ones to permit the chair to zip down the beach or to travel on uneven pathways at over 12 miles per hour. Halsall concluded, "There are plenty of ways we could be tricking out wheelchairs, the Ogo is a hell of a good start, mostly for that hands-free feature. Its future remains uncertain, and we're unsure of specifics like battery life, but there's apparently solid investor interest."

For more information, go to:

<http://boingboing.net/2015/10/19/hands-free-wheelchair-controll.html>

A handwritten signature in black ink, appearing to read "Dan Thompson".

Dan Thompson, RRP, RVP, CLCP

Until next time...