

Researchers find ways to encourage spinal cord regeneration after injury

October 20 2009

Animal research is suggesting new ways to aid recovery after spinal cord injury. New studies demonstrate that diet affects recovery rate and show how to make stem cell therapies safer for spinal injury patients. The findings were presented at Neuroscience 2009, the annual meeting of the Society for Neuroscience.

In other animal studies, researchers identified molecules that encourage spinal cord regeneration and ways to block molecules that discourage it. The findings may help shape therapies for the more than one million people in North America who have spinal cord injuries.

Research released today shows that:

- A diet high in fat and low in carbohydrates speeds recovery in rats with [spinal cord injuries](#). The study suggests that dietary content may affect spinal cord injury recovery rates in people (Wolfram Tetzlaff, MD, PhD, abstract 542.10).
- In animal studies, stem cell implants pre-screened for "unsafe" immature cells helped repair injured spinal cords without dangerous side effects, like [tumor formation](#). The findings suggest best practices for human stem cell therapies (Masaya Nakamura, MD, PhD, abstract 642.14).

Other findings discussed at the meeting show that:

- Researchers are discovering how to encourage the spinal cord to regenerate and form functional connections after injury. Growth factors, enzymes, and molecular tools show promising results in animal models (Eric Frank, PhD).

"Some injuries harm [nerve cells](#), but the brain often recovers from stress, damage, or disease," said press conference moderator Oswald Steward, PhD, of the University of California, Irvine, an expert on spinal cord injury and synaptic plasticity. "We are learning a great deal about how to encourage the recovery process and harness the plasticity of the nervous system to offer hope to [spinal cord](#) injury patients," Steward said.

Source: Society for Neuroscience ([news](#) : [web](#))

Citation: Researchers find ways to encourage spinal cord regeneration after injury (2009, October 20) retrieved 2 May 2024 from <https://medicalxpress.com/news/2009-10-ways-spinal-cord-regeneration-injury.html>

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