The University of Texas at Austin
CARE Cellular to Clinically Applied Rehabilitation Research and Engineering

Exercise after spinal cord injury: more than just a strategy for rehabilitation.

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After spinal cord injury (SCI) there is a progressive cascade of events that greatly affects the health and well-being of the injured subject, beyond the devastating loss of intentional movement. Exercise or physical training has a demonstrated role in the relearning of motor tasks and there is gathering evidence that some secondary consequences of SCI, such as autonomic dysreflexia, respiratory dysfunction, muscle spasticity and chronic inflammation respond to exercise as a treatment strategy. We have extended these findings by examining the effects of exercise on molecular and cellular components of the injured spinal cord and sensory ganglia to begin to understand how exercise might be useful in preventing and/or alleviating the devastating neuropathic pain that develops in the majority of SCI individuals. In each of these scenarios there are clues about ways in which exercise might bring about neuroprotection, neuroplasticity and axon regeneration, providing important information about why different forms of exercise are proving to be effective treatment strategies in animal models of acute and chronic SCI.

Friday, February 19, 2021 12:00 p.m. – 1:30 p.m.

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