MEDICAL BREAKTHROUGHS
RESEARCH SUMMARY

TOPIC: PEDIATRIC SPINAL CORD INJURY: LOCOMOTOR TRAINING GETS LUKE ON HIS FEET
REPORT: **MB #4984**

BACKGROUND: Approximately 20% of spinal cord injuries (SCI) occur in children and adolescents. The incidence of developing scoliosis is greater than 90% if a person is injured prior to the onset of puberty. Younger children who sustain SCIs are more likely to have paraplegia and complete injuries compared to adults. Men are more likely than woman in all age groups except in those 5 years and younger to suffer from SCIs. Children have a higher incidence of spinal cord injury without radiographical abnormality due to immature musculoskeletal system, and properly restrained children in booster seats have decreased the incidence of SCI. Annually just under 1,500 children are admitted to U.S. hospitals annually for SCI treatment.
(Source: https://asia-spinalinjury.org/committees/pediatric/pediatric-committee-news-and-resources/pediatric-spinal-cord-injury-facts/)

DIAGNOSING: The symptoms a child experiences will depend on the degree of severity and particular location of their SCI. Signs of SCI can include but are not limited to muscle weakness, partial or complete loss of muscle movement in the chest, arms, or legs, having issues with breathing, experiencing little to no feeling in the chest, arms, or legs, and having a loss of bowel and bladder functions. The higher in the back or neck the injury is located, the more extensive the symptoms will be. Injury in the lower portion of a child's spine may cause symptoms such as having reduced or absent feelings in their legs, bladder, and bowels. If the SCI is in the upper neck region, they may not be able to move their arms or legs or have difficulty breathing.
(Source: https://www.childrenshospital.org/conditions-and-treatments/conditions/s/spinal-cord-injury)

NEW RESEARCH: A new designation for a regional consortium led by Virginia Commonwealth University will expand research efforts to improve patients' quality of life and offer opportunities for them to receive the best care for spinal cord injury in the country. A center at Virginia Commonwealth University earned federal designation as one of only 14 Spinal Cord Injury (SCI) Model Systems Centers in the U.S. This makes VCU one of only four centers in the nation to have a dual designation as a SCI and traumatic brain injury (TBI) model systems center. Both federal model systems center designations support research and education efforts to improve the lives of all who have sustained such injuries. The new Spinal Cord Injury Model Systems Center designation includes a grant award from the National Institute on Disability, Independent Living and Rehabilitation Research, totaling $2.2 million over five years, to project director Ashraf Gorgey, Ph.D., a professor at CERSE in the Department of Physical Medicine and Rehabilitation, and co-project director Zina Trost, Ph.D., integrative rehabilitation research scientist at CERSE and associate professor in the Department of Physical Medicine and Rehabilitation. The grant will support research on three projects. One, led by Gorgey, aims to improve hand and arm function to increase patients' independence and quality-of-life. Another, led by Trost, will enroll participants in a national spinal cord injury database and conduct research studies on spinal cord injury, both in collaboration with other model systems centers and independently. A third, led by Paul Perrin, Ph.D., professor and director of the Social Justice in Disability and Health Lab in the Department of Psychology at VCU College of Humanities and Sciences, will focus on identifying sources of health inequities around spinal cord injury care to improve access and health outcomes.
(Source: https://www.vcuhealth.org/news/vcu-1-of-4-centers-in-us-to-provide-nationally-recognized-care-for-both-spinal-cord-injury)

FOR MORE INFORMATION ON THIS REPORT, PLEASE CONTACT:

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If this story or any other Ivanhoe story has impacted your life or prompted you or someone you know to seek or change treatments, please let us know by contacting Marjorie Bekaert Thomas at mthomas@ivanhoe.com