**MEDICAL BREAKTHROUGHS**
**RESEARCH SUMMARY**

TOPIC: SAVING LITTLE WALLIE: BREAKTHROUGH TEST FOR CEREBRAL PALSY
REPORT: **MB #4824**

**BACKGROUND**: Cerebral palsy (CP) is a group of disorders that affect a person's ability to move and maintain balance and posture. Cerebral means having to do with the brain. Palsy means weakness or problems with using the muscles. It is the most common motor disability in childhood. The cause is usually abnormal brain development or damage to the developing brain that affects a person's ability to control his or her muscles. Someone with severe CP might need to use special equipment to assist with walking or might not be able to walk at all and need lifelong care. Someone with mild CP might walk a little awkwardly and not need any special help. CP does not get worse over time, though the exact symptoms can change over a person's lifetime.
(Source: https://www.cdc.gov/ncbddd/cp/facts.html)

**SIGNS AND SYMPTOMS:** Cerebral palsy can affect the whole body or be limited primarily to one limb or one side of the body. The brain disorder causing cerebral palsy doesn't change with time, so the symptoms usually don't worsen with age. As a child gets older, some symptoms might become more or less apparent. Muscle shortening and muscle rigidity can worsen if not treated aggressively. Some movement and coordination problems associated with cerebral palsy include stiff muscles and exaggerated reflexes; lack of balance and muscle coordination; tremors or involuntary movements; delays in reaching motor skills milestones, such as pushing up on arms, sitting up or crawling; favoring one side of the body, such as reaching with one hand or dragging a leg while crawling; excessive drooling or problems with swallowing; delays in speech development or difficulty speaking and seizures.
(Source: https://www.mayoclinic.org/diseases-conditions/cerebral-palsy/symptoms-causes/syc-20353999)

**ORTHOTICS BREAKTHROUGH:** Researchers have confirmed that adapting splints in combination with the footwear used by disabled children to help cerebral palsy patients walk, can decrease the energy they use by as much as 33 percent. Nachi Chockalingam, Professor of Clinical Biomechanics at Staffordshire University, explained, "We know that children with cerebral palsy use more energy to walk and our team has found fine-tuning splints to suit the individual needs of a child can make a huge difference to their overall mobility." Researchers analyzed the walking pattern of children with cerebral palsy. Participants were assessed while barefoot and with both tuned and non-tuned splints. Children wearing the fine-tuned splints showed improvements in several areas including hip and pelvic function and knee extension, while a non-tuned splint potentially showed a decrease in hip function.
(Source: https://medicalxpress.com/news/2020-06-orthotics-breakthrough-children-cerebral-palsy.html)

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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**