

# research snapshot

summarize | mobilize



## How Can Doctors Better Monitor and Treat Pain Experienced by Children and Youth With CP?

### What is this research about?

People with cerebral palsy (CP) are at higher risk of pain due to symptoms and complications of CP. Up to 60% of youth with CP admit to having pain. Pain has a negative impact on a person's quality of life. Pain can also interfere with a person's life by restricting or limiting the activities they engage in. Hence, treating pain in individuals with CP will hopefully make their lives better.

A doctor's aim is to identify the cause of pain and prevent, reduce, or eliminate the concern. Thus, doctors will seek to treat pain when they are aware of the concern. However, pain tends to not be communicated as often in individuals with CP which makes it harder for the doctor to treat it. It will be important for doctors to know that pain is common in people with CP. As well, knowing the common causes of pain for people with CP will help doctors to identify, treat, and hopefully prevent the pain. The first main goal of this study was to find how common pain is in children and youth with CP and what the impact of the pain is on their regular activities. The second main goal was to find the most common causes of pain diagnosed by doctors. A minor goal was to explore if caregivers and doctors agree on the reports of pain in kids with CP.

### What you need to know:

1 in 4 children and youth with CP experience pain that will interfere with their everyday activities. Doctors will benefit from being aware of the common causes of pain in youth with CP such as hip dislocation and dystonia. Early diagnosis of pain can improve the lives of people with CP, but can also prevent more serious health concerns.

### What did the researchers do?

From July 2010 to August 2012 a total of 252 people with CP and their families joined this study. People with CP who could complete a questionnaire on their pain did the Wong-Baker Face-Pain Scale. Caregivers were asked to complete the pain questions on the Health Utilities Index 3 (HUI3) questionnaire. The HUI3 questions asked about the impact of pain on their child's everyday activities. Parents were also asked about their child's pain in the last two weeks. The participant's doctor was asked about the child's pain and if there were any clinical causes of pain. Statistical analyses were done to explore the proposed questions for this study.

### What did the researchers find?

Many people with CP experience pain. Pain was reported in 54.85% of youth with CP by their caregivers, 49.6% by youths with CP that could self-respond, and 38.7% of doctors. Around 1 in 4 kids with CP had moderate or severe pain that limits their engagement in activities.

The most common source of pain diagnosed by doctors was subluxation/dislocation of the hip. Dystonia, which is the twisting of the limbs and trunk due to muscle contractions, was another common source of pain diagnosed by doctors. Doctors found that 12% of these kids had multiple sources of pain.

There was moderate agreement among parent's, caregivers, and doctors about the pain experienced by the people with CP who were in this study.

### How can you use this research?

Since pain is common in children and youth with CP, it is important that practitioners ask children and caregivers about pain. Knowledge of the most common causes of pain will assist with treating the pain early but can also help to prevent pain from developing. Having a hip surveillance program, with standard hip x-rays, to diagnose hip problems is important. Some medical conditions can appear similar, like dystonia and spasticity. Practitioners can use tools to help distinguish between medical conditions that seem similar.

Policy makers will learn that doctors and other health care professionals need to be aware of pain in people with CP. Implementing the use of pain screeners could help doctors become aware

of pain experienced by people with CP.

### About the Researchers

Darcy Fehlings is head of the division of Developmental Pediatrics at Holland Bloorview Kids Rehabilitation Hospital and is an Associate Professor at the University of Toronto.

[dfehlings@hollandbloorview.ca](mailto:dfehlings@hollandbloorview.ca)

Lauren Switzer is Research Manager at Holland Bloorview Kids Rehabilitation Hospital.

### Citation

Penner, M., Xie, W.Y., Binopal, N., Switzer, L. and Fehlings, D., 2013. Characteristics of Pain in Children and Youth With Cerebral Palsy. *Pediatrics*, 132 (2), pp. 407-413.

Available online at [bit.ly/1nWwPwG](http://bit.ly/1nWwPwG)

### Keywords

Pain, Cerebral Palsy, Pediatrics

### Knowledge Translation at NeuroDevNet

This is a NeuroDevNet product. NeuroDevNet is a Network of Centres of Excellence dedicated to helping children with neurodevelopmental disorders. The Knowledge Translation Core at NeuroDevNet helps to maximize the impact of research and training in neurodevelopmental disorders. The KT Core serves NeuroDevNet researchers, students and their partners by providing services such as: knowledge brokering, support for KT events, support for KT products, KT capacity building, KT evaluation and support for KT planning.

[www.neurodevnet.ca/kt/researchsnapshots](http://www.neurodevnet.ca/kt/researchsnapshots)  
[KT@neurodevnet.ca](mailto:KT@neurodevnet.ca)

