

# Innovative pain treatments and therapies vastly improve quality of life for sufferers

By Claire Samuelson

**I**nnovative treatments and ground-breaking discoveries taking place in Canada's leading academic healthcare organizations are vastly improving the quality of life of those suffering from severe and chronic pain. HealthCareCAN, the national voice of healthcare organizations across Canada, highlights many of these developments in Innovation Sensation, a database that features over 75 media stories related to pain management. A selection of stories that feature new and innovative treatments and therapies to help alleviate the burden of severe and chronic pain are featured below.

Severe and chronic pain affects one in five Canadians and is one of the most common conditions for which people seek medical attention. Pain disrupts the lives of sufferers, and causes intense physical challenges and emotional anguish. For some, pain is the result of an undiagnosed medical condition, for others, it is the unfortunate symptom of an injury or illness. Many sufferers are amputees, burn victims, or have suffered grievous bodily injury, but for others, the cause is invisible, and far more difficult to diagnose and treat.

**Severe and chronic pain affects one in five Canadians and is one of the most common conditions for which people seek medical attention.**

Researchers at Holland Bloorview Kids Rehabilitation Hospital have found that more than 25 per cent of children with cerebral palsy seen by physicians have moderate to severe chronic pain, limiting their activity. Findings indicate that pediatricians should be aware of chronic pain in this group and try to identify and treat its underlying causes. Treatments range from oral medications to relieve pain symptoms to physical therapy to treat the underlying cause.

A researcher at St. Michael's Hospital in Toronto has discovered that one in every three women undergoing a mastectomy could potentially be spared chronic post-operative pain if anesthesiologists used a regional anesthetic technique in combination with standard care.

Standard care for mastectomies is a general anesthetic, whereby anesthesiologists use gas to keep the patient asleep and narcotics to control pain. Up to 60 per cent of women may experience chronic pain three months after they've had the surgery and at least half of those will still suffer from this pain one year later.

*Continued on page 5*

[www.hospitalnews.com](http://www.hospitalnews.com)

# Innovative pain treatments

*Continued from page 2*

Six months after breast cancer surgery, the study found that women who received the new treatment had more than 50 per cent lower risk of developing chronic pain compared to those who received standard care.

Researchers at McGill University Health Centre have revealed that there are fundamental differences in the way pain is processed and experience by males and females. Historically, research has demonstrated that men and women have different levels of sensitivity to pain and that more women suffer from chronic pain than men, but the assumption has always been that the wiring of how pain is processed is the same in both sexes.

New research reveals that pain is processed in male and female mice using different cells. These findings have far-reaching implications for our basic understanding of pain and how we develop the next generation of medications for chronic pain, the most prevalent human health condition today.

A similar research study, taking place at the IWK Health Centre in Halifax, has shown that girls experience pain more significantly and intensely than boys. The study used a test called the cold pressor test, in which a person submerges his or her hand into water that is about 10 degrees Celsius and then has to describe the level of discomfort on a

pain scale. In the experiment, girls older than 12 reported experiencing more pain than boys while doing a cold pressor test.

Clinicians at the Hospital for Sick Children have developed a novel and fun way to engage children in their daily pain reports, allowing physicians to better diagnose and treat pain in young patients. An iPhone app called “Pain Squad,” enlists patients between the ages of 9 and 16 as “recruits” to help their police force “hunt down pain” by filling out twice-daily reports on their pain symptoms. Apps like this optimize the management of symptoms in the home environment and involve patients in their own pain management, without increasing the burden.

Severe and chronic pain is the unfortunate side-effect of many injuries and illnesses, affecting children and adults alike. Health research allows for the discovery of innovative and ground-breaking treatments, medications and therapies that relieve the burden of severe and chronic pain and improve the quality of life of sufferers. For more innovations related to the prevention, early detection, and effective treatment of severe and chronic pain, visit HealthCareCAN’s Innovation Sensation database. **■**

*Claire Samuelson, MA (Bioethics)  
is Policy Analyst, Research and  
Innovation at HealthCareCAN.*