

Meditation medication

In his work, Dr. Howard Nathan looks at how our minds and bodies connect, helping people with diabetes cope with chronic pain


By Rosalind Stefanac

Finding ways to reduce people's pain has been Dr. Howard Nathan's goal ever since he became a doctor more than 40 years ago. He picked anesthesiology, which focuses on patient care during surgery and pain relief. He eventually became more interested in the long-term effects of disease, particularly chronic, or constant, pain. Over the past seven years he has dedicated most of his work to researching ways to help patients deal with it better.

Based at the Ottawa Civic Hospital, he treats people who have no other pain treatment options left. "Ours is the clinic of last resort, and the people I see are those who don't respond well to traditional medications and treatments," he says. "I have realized that if I can't take the pain away, it is essential to offer patients some way of still maintaining their quality of life."

People who have nerve damage, also known as diabetic peripheral neuropathy, are the focus of his latest clinical study. This condition, which is the result of high blood glucose (sugar) levels over several years, sometimes causes permanent damage to the nerves that go to arms, hands, legs, and feet. Ongoing numbness, tingling, and burning in these areas makes it difficult for people to sleep, walk, or work, says Nathan. "When your quality of life is compromised like this, it can affect your relationships and lead to depression. People who are suffering or disabled in any way tend to be hard on themselves and feel unworthy."

But there is hope. In his Canadian Diabetes Association (CDA)-funded study, Nathan is measuring the possible benefits of mindfulness-based stress reduction (MBSR), a program that incorporates yoga,



Dr. Nathan and his daughter practised "non-doing" in Bowron Lake Provincial Park in Cariboo, B.C.

meditation, and other techniques to help patients better control their natural impulses. Working with a team of experts, individuals focus on improving their diet and blood-sugar levels, and attend an eight-week workshop during which they learn ways to help them deal with chronic pain.

Nathan has done yoga himself, and says he has been interested in meditation all his life.

"Being able to sit still and focus on your breathing for a period of time has been shown to decrease activity in the stress centres of the brain," he says. "The main idea is to take time out to just be in the moment—that's how we renew ourselves. Meditation is becoming an accepted therapeutic approach that doesn't require any set of beliefs."

"Mindfulness, or being aware in the present moment, allows us to process experiences such as discomfort or pain in a calm way rather than being swept away by them."

– Dr. Howard Nathan, physician and researcher

Nathan says people who are experiencing chronic pain can use MBSR to stay calm while making a good decision on what to do next. He says the normal reaction to pain, as with other threats to our well-being, is to concentrate on the pain in an attempt to get rid of it, which results in feeling unsafe and unwell, and losing interest in those around us. This affects our ability to function at home and at work, and can lead to depression. MBSR teaches patients how to peacefully live with conditions they cannot escape (such as pain), regain their concentration, and improve their mood and enjoyment of life.

"You really can have a less intense pain experience, even if you can't change the damage to the nerves."

– Dr. Howard Nathan, physician and researcher

"An effective approach that doesn't rely on medicines and that empowers patients to live well despite chronic pain would be an important step forward," says Dr. Jan Hux, chief science officer for the CDA. "We look forward to seeing the results of Dr. Nathan's research."



Dr. Nathan and co-researcher Yaad Shergill

DR. NATHAN AT A GLANCE

- ▶ Received the University of Ottawa Research Award (2006)
- ▶ Granted the Research Recognition Award, Canadian Anesthesiologists' Society (2005)
- ▶ Became an associate professor in the Department of Anesthesiology, University of Ottawa (1991)
- ▶ Earned a fellowship in anesthesiology from the Royal College of Physicians (1982)

"For many with painful diabetic neuropathy, drugs don't completely eliminate the pain and also come with troublesome side effects. An alternative approach would be welcome."

– Dr. Jan Hux, chief science officer,
Canadian Diabetes Association

The Ottawa-based study is expected to finish by the end of this year. (Patients are being accepted into the study until July 2015. If you want to participate, contact Yaad Shergill at awarestudy@toh.on.ca or 613-761-4486.) If MBSR proves helpful, Nathan says the next step will be to look at ways to make this type of program available to more people. "Improving the quality of life of those suffering with chronic pain and other challenges to their physical and mental health is an important and expanding field of research."

Did you know?

- People with a loss of sensation due to diabetic peripheral neuropathy often fail to notice minor cuts, sores, or blisters to the feet because of nerve damage. If left untreated, these small wounds can become infected. The good news is that you can manage or even avoid this condition with proper foot care and by keeping your blood glucose levels under control. To learn more, visit diabetes.ca/dpn.

Visit diabetes.ca/research to read about the 104 research projects and awards funded by the Canadian Diabetes Association.

How can you help us fund research that changes lives? Donate now! diabetes.ca/donate