

Managing Pain

A newsletter on treating chronic pain from the Pain Management Department at Cleveland Clinic

A Letter from Nagy Mekhail, MD, PhD, Chairman, Pain Management



Nagy Mekhail, MD, PhD

Recognizing chronic pain as a disease

This edition of *Managing Pain* introduces you to courageous patients who confronted a common disease — chronic pain.

Recognizing chronic pain as a disease is an essential step in the healing process. Research studies show that chronic pain creates changes in the spinal cord and the brain, facilitating the sensation of pain for weeks, months and even years.

Chronic pain is no different from how we treat other diseases such as diabetes or hypertension. These diseases cannot be eliminated, but they can be treated and managed to improve the quality of life for our patients.

Just like other diseases, treating patients for chronic pain requires a comprehensive and multidisciplinary approach. In certain cases, minimally invasive treatments may include sympathetic or somatic nerve blocks, radiofrequency or cryoblations, intrathecal drug pumps and spinal cord stimulation. Surgery is another option for some patients with more complicated issues. While medications play an important role for pain management, other alternatives are physical, occupational or nutritional therapy, biofeedback or cognitive behavioral techniques.

We provide these comprehensive treatments through the Chronic Pain Rehabilitation Program, which helps patients manage fibromyalgia and other chronic pain conditions. Our Pediatric Pain Rehabilitation Program is one of the few of its kind in the nation that treats children and teens with complex regional pain syndrome.

In July, we are opening a Chronic Abdominal Pain Clinic, a collaborative effort between the Digestive Disease Institute and the Department of Pain Management. Similarly, a comprehensive cancer pain clinic will start very soon as a collaborative effort between Pain Management and the Palliative Medicine Program.

For more information, please call us today at 216.444.PAIN (7246) or visit us at www.clevelandclinic.org/painmanagement.

Breaking New Ground

Chronic Abdominal Pain Clinic opens in July to provide a wide range of diagnostics and treatments

Cleveland Clinic Department of Pain Management and Cleveland Clinic Digestive Disease Institute are launching a new Chronic Abdominal Pain Clinic that will provide comprehensive and cost effective medical diagnostics and treatments for patients with chronic abdominal pain (CAP).

An estimated 6 million Americans have CAP. However, primary care physicians find it difficult to pinpoint the source of CAP in many patients following a physical examination and standard medical tests.

“CAP, which we define as chronic abdominal pain that has been ongoing for more than six months, has always been a major health problem,” says Maged Rizk, MD, Cleveland Clinic gastroenterologist, who will serve as the Chronic Abdominal Pain Clinic’s first administrator. “Unfortunately, due to physician frustration and patient frustration, a clear way to identify possible causes of CAP has remained elusive.”

More common in women than in men, CAP can be triggered by rare or uncommon gastrointestinal issues, abdominal nerve disorders or psychological issues that may not be detected by standard diagnostic tests such as a CAT scan, a colonoscopy, or an endoscopic procedure to examine the stomach.



Leonardo Kapural, MD, PhD



Maged Rizk, MD

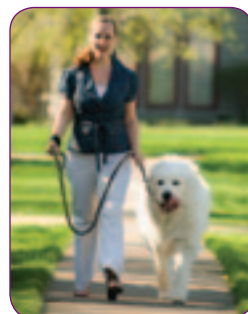
“The problem is when physicians find nothing, they may prescribe pain medications,” says Arthur McCullough, MD, department chair of Gastroenterology and Hepatology, and staff physician in the Department of Pathobiology and Transplantation Center at Cleveland Clinic. But for some patients, the pain doesn’t go away because its source has not been addressed. “The patient may have an uncommon condition or disease that can only be detected by specialized tests which we can do at the Chronic Abdominal Pain Clinic. We believe this clinic is the only one of its kind in the country.”

At the Chronic Abdominal Pain Clinic, scheduled to open in July, CAP patients will undergo a thorough evaluation that includes standard and appropriate specialized medical tests to find the source or mechanism of a patient’s chronic abdominal pain. More importantly, the Chronic Abdominal Pain Clinic will enable collaboration among medical and surgical

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Disc Decompression

Minimally invasive procedure provides lasting pain relief caused by bulging discs



Victoria Mowbray

Severe and debilitating back pain confined Victoria Mowbray, a 35-year-old hospitality worker, to her Avon Lake home for nearly a year.

Mowbray’s pain radiated from three bulging discs. She initially underwent non-surgical treatments (anti-inflammatory medications and steroid epidural injections) but they provided only temporary pain relief.

Then she heard about successful treatments for her condition at Cleveland Clinic.

“In the United States, 250,000 surgeries are performed every year for disc problems,” says Nagy Mekhail, MD, PhD, chair of Cleveland Clinic’s Department of Pain Management. “For patients like Victoria, a minimally invasive procedure that decompresses bulging discs can be effective and provide lasting pain relief.”

Patients receive a local anesthetic and medications to help them relax. The surgeon uses a specialized

probe that is inserted into the bulging disc. A fluoroscopy, or live X-ray, enables the surgeon to guide the probe accurately.

“This 45-minute technique takes out no more than a gram of the nucleus pulposus from the disc, which relieves the pressure on the nerves and significantly reduces the pain, and eventually eliminates it,” Dr. Mekhail says. “Following the procedure, the patient is monitored for about an hour and then returns home to begin the recuperation process.”

For three months, Mowbray did physical therapy to stretch and strengthen her back muscles.

“The pain is gone. I have my life back, and I feel better about it,” Mowbray says.

For more information, please call Cleveland Clinic’s Pain Management Department at 216.444.PAIN (7246), or visit www.clevelandclinic.org/painmanagement.

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specialists and subspecialists from a wide range of disciplines to deliver the most appropriate treatments and follow-up care for CAP patients. The medical disciplines include gastroenterology, urology, hepatology, pain management and clinical research.

What's more, CAP patients can also benefit from innovative treatments developed by Cleveland Clinic's medical research initiatives.

The Chronic Abdominal Pain Clinic will treat patients like Barbara Stewart. For more than half of her life, the 52-year-old Toledo, Ohio woman suffered from chronic pancreatitis, but doctors could not determine what was causing it. Recently, however, she sought treatment at Cleveland Clinic where physicians conducted advanced tests that unveiled an anatomical issue with her pancreas that was the likely source of her chronic pain.

"My pancreatitis would create tremendous pain throughout my abdomen and my back," says Stewart. "I was on a lot of opiate pain medications but my quality of life was not good." She was forced to quit her full-time job as a nurse practitioner and go on disability.

At Cleveland Clinic, she was seen by Leonardo Kapural, MD, PhD, director of pain management clinical research at Cleveland Clinic's Department of Pain Management. He used spinal cord stimulation to treat pancreatic pain. Through a stimulator device implanted in the body, low-level electrical signals are delivered to the spinal cord to block pain signals from reaching the brain.

"The spinal cord stimulator made a big difference in my life," Stewart says. "It has reduced my everyday pain by about 75 percent and my intake of opiate medications has been cut by about 80 percent." While there have been impressive advances in

pain management treatment, Nagy Mekhail, MD, PhD, chair of Cleveland Clinic's Department of Pain Management, says the most important breakthrough in pain medicine is the concept that chronic pain is a disease, not just a symptom.

"Research has shown there are changes that occur in the spinal cord and brain that can facilitate the sensation of pain even after a patient recovers from disease or an incident," observes Dr. Mekhail. "For example, you can have a patient who has completely recovered from an episode of shingles, a viral infection that causes a painful rash. Even when the infection is completely gone, some patients can still feel pain. This occurs because there has been an activation in the pain processing nerve cells in the brain and spinal cord that leads to stimulation and the perception of pain."

For more information or to schedule an appointment, please call 216.444.PAIN (7246) or visit www.clevelandclinic.org/painmanagement.

Cleveland Clinic Pain Management Clinical Studies Open

Patients with diabetes and discogenic pain wanted

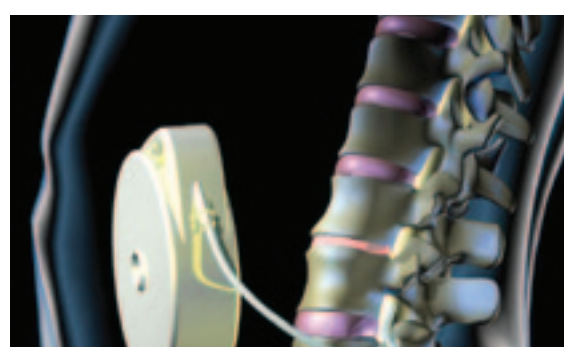
The Cleveland Clinic Department of Pain Management is recruiting qualified patients to participate in the following clinical research studies:

- Efficacy and Safety Study of topical clonidine (ARC-4558) for management of pain associated with painful diabetic neuropathy. This is a randomized study meaning half of the patients will be treated with clonidine and half will receive a placebo. The study is enrolling adults, age 18 to 80, who have been diagnosed with Type 1 or Type 2 diabetes mellitus with stable glycemic control for at least three months. Study candidates also must have a history of moderate to severe foot pain related to diabetic neuropathy lasting between six months and five years.

- The Intradiscal Biacuplasty Randomized Sham Study will evaluate the effectiveness of Transdiscal Biacuplasty (TB) compared to the best possible control-sham procedure. TB is a minimally invasive procedure for the treatment of pain that originates from the intervertebral discs of the spine, also known as discogenic pain. The study is accepting 18- to 55-year-old patients with chronic lower back pain and no previous lumbar disc surgery.

Patients interested in participating in these studies should call the Cleveland Clinic Department of Pain Management at 800.392.3353, or visit www.clevelandclinic.org/painmanagement.

Cancer Pain Alternative treatments can improve quality of life for patients



Cleveland Clinic patients Mr. RR and Mrs. JS were struggling day to day with constant pain from their cancer. But that burden has been lifted thanks to Cleveland Clinic innovative treatments.

An estimated 3.5 million people suffer from daily cancer pain. Research shows 90 percent of patients with advanced cancer say pain is the most distressing symptom of their disease.

Patients who experience intractable pain due to metastatic cancer are commonly treated by a variety of oral narcotics. For some patients, however, these medications in high dosages can result in side effects that have a significant negative impact on the quality of life. What's more, for approximately 7 percent to 10 percent of cancer patients, oral medications do not sufficiently control their severe cancer pain,

says Nagy Mekhail, MD, PhD, chair of Cleveland Clinic's Department of Pain Management.

For those patients, interventional techniques such as intrathecal pain pumps (ITP), celiac plexus block, spinal cord stimulators, and ablative procedures can be effective treatments for managing cancer pain, reducing the patients' intake of narcotics and enabling them to return to normal activities.

When Mr. RR first arrived at Cleveland Clinic's Department of Pain Management, he could barely keep his eyes open or talk because he was on so many different medications to control his intractable pain due to advanced pancreatic cancer that had spread to his liver and his spine.

Dr. Mekhail discussed the option of ITP, which is surgically implanted underneath the skin. The device delivers the pain medication to the spinal fluid. The ITP advantage is that it can be programmed to deliver very small quantities of drugs minimizing or eliminating side effects.

"The ITP allows me to enjoy my time and focus on other things in my life," says Mr. RR.

A celiac plexus block is another treatment option for patients with metastatic cancer.

The celiac plexus — a bundle of nerves located in front of the diaphragm and behind the stomach — provides nerve function for the liver, pancreas, gallbladder, abdomen, spleen, kidneys, intestines, adrenal glands and blood vessels. When cancer lesions grow and press against these organs, the celiac plexus nerves transmit pain signals to the spinal cord and brain.

The celiac plexus block is a minimally invasive procedure. The surgeon uses x-ray to guide needles into the the proper position. An anesthetic and/or alcohol is injected into the region blocking the nerves from transmitting pain signals to the brain.

"The celiac plexus procedure was very successful and very helpful," Ms. JS says. "Occasionally I experience a little pain, but now I no longer have constant pain."

When these techniques fail to control severe cancer pain, ablative treatments may be another option. In these cases, the procedure involves ablating, or removing, tissues involved in the transmission or the perception of pain.

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Overcoming Pain



Michael Stanton-Hicks, MD

New Cleveland Clinic program provides multi-disciplinary treatments and hope for children with Complex Regional Pain Syndrome, CRPS



Marah Miller was lucky to have survived a horrific head-on car accident. In addition to a few bruises, she sprained her ankle. But the sprained ankle never healed. It swelled and turned purple. To make matters worse, the burning, stabbing pain intensified to the point where she could only walk with crutches. Even when her ankle was ever so lightly touched, the pain was agonizing.

“Marah was taking a bath when a bubble touched her ankle and it was as if she was being stabbed by a butcher’s knife,” recalls Marah’s father, Murray. “That’s how much pain she was in.”

Because of the unrelenting pain, the 13-year-old Florida girl missed school. She stopped competing in swim meets, and she couldn’t even visit her friends without her parents’ supervision. Though family members and friends were always loving and supportive of Marah, they grew frustrated and concerned about her worsening condition despite months of various treatments by nine different physicians.

Marah suffers from a classic case of complex regional pain syndrome (CRPS), formerly known as reflex sympathetic dystrophy syndrome (RSDS), a painful nerve disorder usually triggered after an injury, says Michael Stanton-Hicks, MD, Department of Pain Management at Cleveland Clinic. Dr. Stanton-Hicks is one of the world’s leading CRPS authorities.

“The injury usually occurs in the arms or legs and the pain does not go away, gets worse and can spread to other parts of the body,” says Dr. Stanton-Hicks.

What causes this condition is a mystery. Scientists are now working on a number of mechanisms that involve abnormal nerve inflammation in the affected region and changes in the central nervous system. These, and other causes are responsible for the features that are seen such as skin color, texture, swelling, loss of normal movement, weakness and alterations in the underlying structure such as joints, tendons and ligaments.

Up to 7 percent of children develop CRPS after an injury, and about 8 to 10 percent of injured adults get the condition following an injury. But because it is not widely known or understood, CRPS is often misdiagnosed, and many patients undergo erroneous or excessive treatments, says Dr. Stanton-Hicks.

A pain management physician referred the Millers to Dr. Stanton-Hicks, who led a panel of medical professionals that developed and launched Cleveland Clinic’s Pediatric Pain Rehabilitation Program.

“Because CRPS is so complex and because it impacts the patients’ lives and their families in so many different ways, we developed this program

Marah is starting to take a few laps in the pool, playing flute in the school band and is thinking about joining the volleyball team.



to provide comprehensive treatments across several medical disciplines,” says Dr. Stanton-Hicks. “It is one of the few programs in the nation that offer an interdisciplinary approach to pain management for children and teens. About 90 percent of patients treated in our program experience remission of their pain, and about 15 percent of those patients have relapses.”

After undergoing a thorough evaluation, the children are treated by a team of physicians, psychiatrists, psychologists, physical, occupational and recreational therapists, nurses, dieticians and social service professionals.

“Physical therapies seem to be the key for both adults and children, but with children their response to physical therapy is very good in part because of their developmental nature,” says Dr. Stanton-Hicks. “Psychological counseling also seems to work very well for children perhaps because they don’t have the preconceived inhibitions and attitudes that adults do.”

While most children still need medication to help them manage their pain, opiates are used minimally. Instead, corticosteroids, antidepressants, anti-seizures medications, as well as topical analgesics have been shown to effectively treat most CRPS patients. Other treatments may include sympathetic nerve blocks, intrathecal drug pumps and spinal cord stimulation. These treatments, however, are temporary and usually apply to a small percentage of patients.

Parents also participate in counseling, and children are required to continue their education during the two to three weeks of inpatient and outpatient treatments.

“My daughter went into the program with crutches, and she walked out of the program on her own two legs,” says Murray. “It was a very emotional moment for me and my daughter. We’ll never forget it.”

New Physician Update

The Pain Management Department welcomes...



Marc Soloman, MD, joined the Cleveland Clinic Department of Pain Management in 2009 after completing his anesthesia residency and pain management fellowship at Cleveland Clinic. His specialty interests include back and neck pain, neuropathic pain, headaches, abdominal pain and spinal cord stimulation for chronic pain. Dr. Soloman earned his medical degree from the University of Alexandria Medical School, Alexandria, Egypt.

Dr. Soloman sees patients at the Elyria (Chestnut Commons) Pain Management Center, Cleveland Clinic’s Main Campus and Marymount Hospital Pain Management Center.

Managing Pain

Jennifer Cherni, Marketing Manager

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The Cleveland Clinic is an independent, not-for-profit, multispecialty academic medical center. It is dedicated to providing quality specialized care and includes an outpatient clinic, a hospital with more than 1,000 staffed beds, an education division and a research institute.

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In case of pain, call 216.444.PAIN

Your first step toward pain-free living starts with a phone call.

Call our appointment number today at **216.444.PAIN (7246)** to see a pain specialist in or near your community. Schedulers are available 24/7.

Cleveland Clinic Pain Management Department uses the latest diagnostic tools and delivers a wide range of traditional and innovative treatments for all types of chronic and recurrent pain conditions.

Multidisciplinary teams made up of pain management physicians, nurses, psychologists and therapists work together to treat patients at nearly 20 locations throughout Cuyahoga, Lake, Lorain and Summit counties.

Living with Fibromyalgia



Gayle Adair

Current treatment for patients include not just medications, but exercise, stress management and cognitive behavioral therapies

For nearly 20 years, Gayle Adair suffered with fibromyalgia, a syndrome that afflicts 6 million Americans. Fibromyalgia syndrome (FMS) patients experience chronic muscular-skeletal pain and tenderness throughout their bodies though there is no known cause.

In addition to medications, multimodality treatments have shown to help FMS patients. Health professionals say physical, occupational and nutritional therapies, stress management, individual or group counseling and cognitive behavioral therapy help patients develop useful techniques to manage their pain.

“Cleveland Clinic’s Chronic Pain Rehabilitation Program enables patients to learn more about their condition, and to learn from others about how to cope with and control FMS,” says Bruce Vrooman, MD, a Cleveland Clinic pain management physician who treats a variety of patients experiencing fibromyalgia. “This program has helped many patients improve the quality of their lives.”

“Along with medication, my treatment includes exercise, cognitive therapy, stress management, as well as watching my diet and weight,” says Adair of Wadsworth, Ohio “All of these things have helped me manage my disease. Although I’m not totally pain free, I’m doing much better and I’m living a better life.”

For more information, please call Cleveland Clinic’s Pain Management Department at **216.444.PAIN (7246)**, or visit www.clevelandclinic.org/painmanagement.

Pain Management Locations within the Cleveland Clinic Health System

To request an appointment with a Cleveland Clinic Pain Management specialist near you, please call **216.444.PAIN (7246)** or toll-free **800.392.3353**.

Main Campus

9500 Euclid Avenue
Cleveland
216.445.7370

Cleveland Clinic Health System Hospitals

Euclid Hospital

18901 Lakeshore Boulevard
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216.692.7543
Pasha Saeed, MD, Medical Director
William Welches, DO, PhD

Hillcrest Hospital

6803 Mayfield Road, Suite 200
Mayfield Heights
440.312.7246
Teresa Dews, MD, Medical Director
Riad Laham, MD
Hong Shen, MD
Sameh Yonan, MD

Lakewood Hospital

14519 Detroit Avenue
Lakewood
216.529.7246
Fady Nageeb, MD, Medical Director
Emad Daoud, MD, PhD

Lutheran Hospital

1730 West 25th Street
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216.363.2391
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Hong Shen, MD
Michael Stanton-Hicks, MD

Marymount Hospital

12300 McCracken Road,
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216.587.8830
Samuel Samuel, MD, Medical Director
Lokesh Ningegowda, MD
Marc Soloman, MD

South Pointe Hospital

4110 Warrensville Center Road
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Lokesh Ningegowda, MD
William Welches, DO, PhD

Cleveland Clinic Family Health Centers

Avon Lake Family Health Center

450 Avon Belden Road
Avon Lake
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Philippe Berenger, MD, Medical Director

Beachwood Family Health and Surgery Center

26900 Cedar Road
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216.839.3000
Nagy Mekhail, MD, PhD
Timothy Rhudy, MS, LAc
Bruce Vrooman, MD

Chagrin Falls Family Health Center

551 East Washington Street
Chagrin Falls
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Teresa Dews, MD, Medical Director

Elyria Pain Management Center at Chestnut Commons Family Health Center

303 Chestnut Commons Drive
Elyria
440.366.9444
Marc Soloman, MD

Lorain Family Health and Surgery Center

5700 Cooper Foster Park Road
Lorain
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Philippe Berenger, MD, Medical Director
Kenneth Grimm, DO

Solon Family Health Center

29800 Bainbridge Road
Solon
440.519.6925
Timothy Rhudy, MS, LAc

Strongsville Family Health and Surgery Center

16761 SouthPark Center
Strongsville
440.878.2500
Kenneth Grimm, DO, Medical Director

Willoughby Hills Family Health Center

2570 SOM Center Road
Willoughby
440.943.2500
Sameh Yonan, MD, Medical Director
Pasha Saeed, MD

Additional Locations

Broadview Heights Pain Management Center

2001 East Royalton Road
Broadview Heights
216.986.4000
Samuel Samuel, MD, Medical Director

Twinsburg Pain Management Center

2365 Edison Boulevard, Suite 70
Twinsburg
330.425.2266
Lokesh Ningegowda, MD

Westlake Pain Management Center

850 Columbia Road, Suite 120
Westlake
440.835.8233
Emad Daoud, MD, PhD, Medical Director

Our staff is available to speak to area community groups. To request a speaker, e-mail us at painmanagement@ccf.org or call 216.444.1174.

For more information about any of the stories in this newsletter or for answers to your questions or concerns about pain management, please contact us at **800.392.3353** or visit us on the web at www.clevelandclinic.org/painmanagement.