Our mission is to improve the quality of life for people with problems of the spine. We offer comprehensive diagnosis and treatment options for all types of spine problems, from the most common to the most obscure. Whether your treatment is to be medical or surgical, we are dedicated to applying leading-edge technology, the latest techniques and the most effective therapies to help you feel, move and live better.

The Center for Spine Health staff includes some of the leading medical and surgical spine specialists in the United States, backed by the reputation of Cleveland Clinic. In its annual “America’s Best Hospitals” survey, U.S. News & World Report has ranked Cleveland Clinic neurosurgical and orthopaedic services the best in Ohio and among the 10 best in the nation for more than 14 years in a row.

Our physicians work closely with physical therapists and occupational therapists to develop a complete, individualized treatment plan for each patient that considers his or her diagnosis, lifestyle and treatment goals. We take pride in working as a team to achieve the best possible outcomes for our patients.

Thank you for choosing Cleveland Clinic’s Center for Spine Health for your care.

Sincerely,

Gordon Bell, MD
Director, Cleveland Clinic Center for Spine Health
More than 21,000 patients from all over the world come to Cleveland Clinic’s Center for Spine Health each year for help with conditions of the back and neck, ranging from the most common to the most complex.

The Center for Spine Health brings together the expertise of nationally recognized Cleveland Clinic specialists in orthopaedic surgery, neurosurgery and medical spine, offering patients with back and neck problems the latest, most innovative, most effective medical and surgical treatments.

**TREATMENT OPTIONS**

From your first visit to Cleveland Clinic’s Center for Spine Health to your final follow-up, our specialists are ready to offer you the most appropriate and effective treatment for your problem from among a full range of available options.

**CONSERVATIVE TREATMENT**

Whenever possible, your Center for Spine Health physician will explore nonsurgical treatments first. These treatments may include medication, pain management, manipulation, acupuncture, bracing or physical therapy. All of these medical services are available through experts at Cleveland Clinic’s Center for Spine Health.

**SURGICAL TREATMENT**

For some problems, surgery is the only possible solution. Although spinal surgery is often delicate and complex, Cleveland Clinic Center for Spine Health surgeons have one of the highest success rates in the country for even the most complex procedures. They also are skilled in the latest minimally invasive techniques that are associated with less postoperative pain and a faster recovery. In the hands of a skilled, experienced surgeon, the benefits of surgical treatment usually far outweigh the risks.

Whatever your diagnosis, our specialists are dedicated to restoring your function and relieving pain to the greatest degree possible by applying their knowledge and skill, combined with the latest techniques and advanced technology.

**BACK TO BASICS**

Your spine is made up of 24 vertebrae: circular bones linked together by ligaments and muscles.

When the vertebrae are lined up to form the spinal column, their central holes form a long, bony canal, the spinal canal. The spinal canal is uniquely designed to protect and support the spinal cord, a bundle of nerves that connects your brain with the rest of your body.

Starting at the base of the skull are seven cervical vertebrae. The 12 thoracic vertebrae make up the middle of your spine, and the five lumbar vertebrae are at the lower end, forming the bottom curve of the spine. The soft, cushiony discs between the vertebrae act like shock absorbers and prevent the vertebrae from rubbing against each other. All of these sections are interrelated, and together they let you move, walk and stand up straight.

The spinal cord, running from the brain to the lumbar region, contains millions of nerve fibers that carry messages from your brain to the rest of your body. It extends from the brain to the area between the end of your first lumbar vertebra and the top of your second lumbar vertebra. The spinal cord branches into 31 pairs of nerve roots that pass through small openings in the left and right sides of the vertebrae. The nerves in each region of the spinal cord connect to specific parts of your body.

The truest test of a spine center is its reputation among patients who have been treated there. In the following pages, patients from Cleveland Clinic’s Center for Spine Health tell their stories, and explain how the treatment they received here changed their lives.
“Strike!” For 21-year-old San Francisco Giants pitcher Brad Hennessey, that was one of the sweetest sounds on the planet in the summer of 2001. Drafted out of Youngstown State University, the young athlete was living his dream, playing his first season in major league baseball.

Part way through his “short season” — the abbreviated first season new players have when they are first drafted into the majors — Mr. Hennessey started feeling odd twinges and pains. He tried to mask the pain with ibuprofen, but it gradually became more than he could deal with.

After his short season, the plan was for Mr. Hennessey to go through an extended training period. “But the pain was so bad, I couldn’t pitch and had to quit two weeks early,” he recalls.

He went through extensive therapy and rehabilitation in the off-season, but when it was time for spring training in Arizona, “I came to terms with the fact that I couldn’t do it,” he says, facing the possibility that his dream might be cut short. Team doctors ordered an MRI and discovered a fast-growing, benign tumor on Mr. Hennessey’s spine, wrapping around his spinal cord. Shocked at the news, his girlfriend Erin, a registered nurse, flew to Arizona to consult with the doctors. Under her influence, Mr. Hennessey decided to come home and seek a second opinion at Cleveland Clinic.

A Cleveland Clinic Center for Spine Health surgeon confirmed the diagnosis and recommended surgical removal of the tumor, because even a benign tumor on the spinal cord can cause extensive damage, pain and disability. The tumor needed to be removed to restore Mr. Hennessey’s function and prevent more serious problems.

In February 2002, the tumor was removed, carefully snipped away from the spinal cord in a delicate operation that left Mr. Hennessey’s spinal cord and nerves intact. Within five months, though, he was back at Cleveland Clinic. “I was not recovering as the doctors expected. When they took another MRI, the tumor had come back.”

That meant another major surgery for Mr. Hennessey, to remove the tumor. A minimally invasive technique pioneered at Cleveland Clinic was used, designed to spare the important muscles and joints of the neck and upper back. “This time, I recovered so quickly, I knew that it was over,” Mr. Hennessey says. “I was ready to go.” He hit spring training in 2003 raring to get on the field, but “it was like starting from Day 1,” he says ruefully. “I had to get back into shape.”

Young and healthy, he bounced back quickly, and by the second half of the 2003 season Mr. Hennessey was playing lower A ball in Hagerstown, Maryland. In 2004, he received the all-important invitation to the Giants’ big league camp, started in AA play, got promoted to AAA and was called up to the majors after just four games. After another quick trip to AAA and back, he broke into the Giants’ starting rotation, finishing the 2004 major league season with a 2–2 record.

Mr. Hennessey and Erin, now his wife, have put his physical problems behind them and are enjoying their toddler, Emma, and getting accustomed to the demands of a baseball player’s schedule. “I feel absolutely no effects from the surgery, and it doesn’t restrict my pitching ability at all,” says Mr. Hennessey, looking forward to a long career in the game he loves. Play ball!
David
MARSHALL, JR., OD, PhD
SPINAL STENOSIS

David Marshall, Jr., OD, PhD, is no stranger to Cleveland Clinic. With a range of health problems, including reflex sympathetic dystrophy (RSD), a painful and progressive nerve disorder that can eventually lead to crippling and permanent damage, Dr. Marshall had become very familiar with 9500 Euclid Avenue over the course of four years.

When pain from stenosis left him immobile, he turned to Cleveland Clinic’s Center for Spine Health.

Spinal stenosis is a condition that results from degeneration and arthritis of the spine. Thickening of the bone and ligaments of the vertebrae cause the spinal canal to narrow. Nerves, which are housed in the spinal canal, become damaged, resulting in severe pain, numbness and weakness. Dr. Marshall’s stenosis was located at the C-3 and C-4 cervical vertebrae — meaning it affected the third and fourth discs at the base of the head.

“It was a triad,” he says. “Tingling, pressure and unbearable pain.”

Dr. Marshall had previously undergone surgery to receive a spinal cord stimulator — an implanted device that treats chronic pain by generating electric impulses — to ward off the pain from RSD. It didn’t do the trick for the stenosis, though.

The pain, he says, radiated from his sternum to his shoulder and prevented him from doing so much as lifting his chin from his chest.

“There wasn’t much I could do,” he says. “I could lift my head for a second, but the pain would drop it back down again.”

Relief finally came. Dr. Marshall underwent a C3-4 discectomy and revision spine surgery at Cleveland Clinic’s Center for Spine Health.

The results were noticeable immediately.

“The next day I felt the best I had in four years,” he says, noting that the surgery had relieved him of much of the pain associated with RSD as well.

Leading up to the procedure, Dr. Marshall says his spinal cord stimulator had been on “24 hours a day, seven days a week.” Since that day, however, he says the device is on only about 50 percent of the time, and, with his surgeon’s blessing, he currently is working to wean himself off the device completely.

Dr. Marshall is looking forward to starting back to occupational therapy to regain the strength in his arm and hand that he lost to RSD. Though he had made moderate gains in prior occupational therapy sessions, the stenosis left him unable to keep up his exercises, and he lost the progress he had made. He says he is confident he will get better, with lasting results this time around.

Dr. Marshall says he is grateful to return to a “normal life” since his surgery. He is enjoying spending time with his loved ones and is glad to be able to sleep again. He says he is thankful to the Cleveland Clinic staff who got him back on track.

“My spine surgeon, his residents and fellows, and everyone associated with my care was great,” he says. “I’m so pleased.”
SCOLIOSIS

The school nurse caught the problem in a routine back check and contacted Mary’s parents. The news that she had early scoliosis was a surprise to Mary. “I didn’t realize that I had scoliosis because I couldn’t feel it or see it, and it didn’t seem to be causing me any problems.”

A visit to her pediatrician confirmed that Mary’s spine had a 54-degree curvature, and he recommended surgery to correct it. Mary, born without arms, relies on her feet for most of her regular daily tasks. She was eager to have her back problem corrected as soon as possible, before it interfered with the flexibility she needs to function.

A Cleveland Clinic Center for Spine Health surgeon discussed all of the surgical options with Mary and her family. Treating scoliosis requires a fusion of a portion of the spine to correct the curve with a system of hooks, rods and screws implanted to hold the spine in the correct position. In Mary’s case, her spine surgeon decided to end the fusion at a higher-than-usual level in her spine so that she would retain her flexibility. “That sounded good to me. My doctor understood how important it is to me to be able to use my feet,” Mary says.

An anterior fusion was performed on Mary, which markedly improved the spinal deformity and still allows her the complete mobility and flexibility that are so essential to her life. Even now, she continues a regular program of stretches, recommended by her surgeon, to keep her back flexible. Occasionally, she feels tired if she stands for a long time, but, “other than that, I don’t think too much about my back,” Mary says.

This active teen is busy getting on with her life. After conquering her back problem, Mary recently scored another victory — she passed driver’s education and now she’s ready to conquer Ohio’s highways.

Whether she’s running cross country for the Rocky River High School team, playing French horn in the school marching band or jumping on her trampoline at home, Mary Gannon seldom gives a thought to the operation she had at age 12 to correct scoliosis, curvature of the spine.

OCCASIONALLY, SHE FEELS TIRED IF SHE STANDS FOR A LONG TIME, BUT, “OTHER THAN THAT, I DON’T THINK TOO MUCH ABOUT MY BACK,” MARY SAYS.
SPINAL PAIN

Josephine Steinhurst discovered a hidden talent late in life. After retiring in her mid-60s, she decided to try art classes at a nearby Japanese museum in Florida, where Mrs. Steinhurst and her husband, Hyman, lived during the winters. Not only did she discover the gift of painting, but she loved the hobby and the people involved in the art.

“It just became an important part of my life — it’s like a second career,” says Mrs. Steinhurst, who paints primarily Oriental watercolors on rice paper and recently had a one-woman show in Judson Park at the Howson Gallery.

The problem was she had to paint standing up, as Mrs. Steinhurst suffers from spinal pain and couldn’t sit for long periods of time comfortably.

She had injured her spine about 50 years ago when she was chasing her 4-year-old son and fell down the stairs. That’s when the pain began. Mrs. Steinhurst went through years of physical therapy, but nothing seemed to do the trick. In fact, while at work she would wear a leather and metal brace to ease the pain. It did seem to get better as she got older, “but it didn’t mean there was no pain,” she says. “And if you’re in pain, it’s difficult to be pleasant; it’s difficult to be a nice person.”

The mother of three was inhibited by the spinal injury. Not only did she stand a lot, but she couldn’t go to concerts or any place she had to sit for long periods of time. “It definitely impacted my life,” she admits.

Less than a year ago, she asked her doctor about the benefits of acupuncture and whether it would help in her situation. Her doctor encouraged her to try it. And when the pain got bad enough, Mrs. Steinhurst decided she had nothing to lose. So she turned to Cleveland Clinic’s Center for Spine Health for relief.

To her pleasant surprise, she had immediate results. After her very first treatment, it was like a miracle, says Mrs. Steinhurst, who describes the treatment as a slight pinch but not painful enough to merit a mention. “Nothing did for me what the first go at acupuncture did,” she says, recommending it to other patients. “My back has not been as comfortable for most of my adult life as it is now. I go back every six to eight weeks for a ‘tune-up.’”

To Mrs. Steinhurst, getting the treatments at Cleveland Clinic is very reassuring. “My physician and his primary nurse are wonderful people,” says Mrs. Steinhurst, who takes only over-the-counter arthritis pills for her spinal injury because of the success of acupuncture. “And, I have a physician doing it, which adds a feeling of security.”

Today, Mrs. Steinhurst and her husband live at Judson Manor in University Circle. Originally from Boston, the couple moved to Cleveland a year ago because it was time for a lifestyle change, says Mrs. Steinhurst, who serves on various committees within the Judson Manor communities. “It’s a wonderful place to live, with lots of music and interesting people. Coming to this part of Cleveland was like coming back to Boston. It’s very similar and we felt immediately comfortable, and having Cleveland Clinic here is a marvelous advantage.”

The acupuncture treatments have given Mrs. Steinhurst her life back. “Now I don’t have to stand while painting, and I can sit at a computer and write poetry for a length of time that I never could before. The only regret I have is that I waited until I was 84 to do this.”
BULGING DISCS

The Rev. Gregory Becker is singing the praises of Cleveland Clinic’s Center for Spine Health. An Orthodox priest at Sts. Peter and Paul Church in Youngstown, Ohio, where his duties include teaching and directing the 20-voice adult choir, the Rev. Becker is back to virtually full strength after an ordeal with a neck problem that left him nearly helpless and hopeless.

His torment began subtly, when he awoke one morning and his hands were numb. The Rev. Becker dismissed the sensation, thinking he had “slept wrong.” When the numbness continued for several weeks, he consulted his primary care physician. The doctor recommended the Rev. Becker resume taking his thyroid medicine, which he had discontinued.

When the strange symptoms persisted despite the thyroid supplement, the Rev. Becker started to worry. A 55-year-old diabetic, he began to wonder if he was experiencing the beginnings of diabetic neuropathy, a form of nerve damage unique to people with diabetes.

Next, his knees started to hurt. When he took his summer vacation, “I felt constantly fatigued and didn’t feel like going anywhere,” he recalls. After he returned home, his symptoms continued to worsen, and his worry continued to grow.

“By this time, the numbness was so severe that I couldn’t feel the change in my pocket. My legs started to tingle and feel numb, too,” he says, remembering the panic that was starting to build.

Within a month, “I had great difficulty getting out of bed or out of a chair. I was feeling more and more weak. It was an effort to walk from one end of a room to the other. I was unsteady and falling on the stairs.”

The Rev. Becker was now virtually unable to fulfill his responsibilities as choir director, church administrator and twice-monthly Liturgy celebrant, although he kept trying. His choir members were very concerned about his rapid decline, and one of them, a physician, finally insisted on having him admitted to a local hospital for a thorough evaluation. Finally, doctors there pinpointed the problem — bulging discs in his neck.

Discs, composed of a jelly-like material surrounded by a fibrous case, act as cushions between the vertebrae. Three discs in the Rev. Becker’s neck were bulging into the spinal canal and compressing his spinal cord, causing all of his symptoms. The doctors advised him to consult a neurosurgeon to have the damaged discs removed.

Easier said than done — the Rev. Becker could not find a neurosurgeon in Youngstown willing to take on such a complex case. A tricky procedure at best because of the location of the discs, the procedure was complicated even more by the Rev. Becker’s diabetes. Finally, the Rev. Becker’s physician friend suggested that he make an appointment with a friend of hers from medical school, a Cleveland Clinic Center for Spine Health surgeon.

The Rev. Becker remembers the stress and anxiety of that first appointment all too well. “My surgeon said I had a severe problem because the discs had been exerting pressure on the spinal cord for such a long time. Even worse, he told me that there was a risk I would lose my voice permanently as a result of the vocal cords having to be pushed aside during the procedure. How could I live if I could not speak or sing?

“But, when I came face to face with my options, I realized I really had no choice. The Center for Spine Health team has worked together a long time, and I was confident in their abilities.”

Three weeks later, in a four-hour operation, a three-level anterior cervical discectomy was performed, removing the deteriorated discs. To the Rev. Becker’s joy and relief, “That same night, my voice was raspy, but it was there.” Within a couple of weeks he was driving, and he returned to work in a month. Today, “the feeling has come back in my hands, although some numbness still remains. I do not have any pain. I can walk, I can type, I direct my choir and my voice is normal. I am 100 percent. I thank God for giving my surgeon the hands and the skill to make me whole again.”
SPINAL INSTABILITY

Theresa Jancigar and her husband, Rudolph, enjoy the simple things in life — taking a drive, keeping up their home, bowling. So when severe neck pain forced Mrs. Jancigar, a lively 86, to slow down, she knew she had to do something about it.

“You know how the nurse asks you how your pain is on a scale of one to 10? I was at an 11,” says the sprightly Eastlake, Ohio, resident. The pain progressed so quickly that within a month from when it began, “I had to lay flat or I experienced severe pain in my neck and head,” she says.

Mr. Jancigar took his wife to her primary care doctor at Cleveland Clinic. Beginning with the least-invasive approach for Mrs. Jancigar’s problems, her physician prescribed pain medication. Unfortunately, the pain medication gave Mrs. Jancigar an intolerably upset stomach. Determined to seek another answer to her problem, she made an appointment with her Cleveland Clinic rheumatologist, who treats her for arthritis. “When I went to see him, I was in such bad shape I had to use a walker, and I was down to 100 pounds from the nausea,” Mrs. Jancigar recalls.

Her rheumatologist referred her to a Cleveland Clinic Center for Spine Health surgeon. “He went right to the top of my list when he called me that evening and asked if I could come to [Cleveland] Clinic at 6 o’clock the next morning,” Mrs. Jancigar says with a chuckle. Her spine surgeon determined that her pain was caused by spinal instability, high up in the spinal column between the first and second vertebrae in her neck. He recommended surgery to stabilize those vertebrae, but “he emphasized that my age was against me,” says Mrs. Jancigar. In her favor, though, was her otherwise good health. Still a little bit undecided, “I awoke one morning and was in such excruciating pain that I screamed,” she says. “That was it. I decided to go ahead with the surgery.”

A cervical laminectomy was performed, a complex surgery that involved removing a ring of bone from the first vertebra in her neck, followed by a bone fusion. Her surgeon placed a metal plate on her skull, held in place by screws, then placed screws into the second vertebra and, finally, attached the screws and the plate to bring the spine into proper alignment. “This procedure, while technically challenging, especially in the upper neck, is excellent for relieving pain caused by spinal instability,” notes her surgeon.

At home again with her husband, Mrs. Jancigar recovered rapidly with the assistance of a Cleveland Clinic physical therapist who came to the house. “For my years, I did very well,” she says with pride. So well, in fact, that less than three months after the surgery, Mrs. Jancigar was again driving, shopping, visiting and participating in social activities — and shining up her bowling ball. “I am absolutely glad that I had the surgery,” she says. “I am enjoying life again.”

AT HOME AGAIN WITH HER HUSBAND, MRS. JANCIGAR RECOVERED RAPIDLY WITH THE ASSISTANCE OF A CLINIC PHYSICAL THERAPIST WHO CAME TO THE HOUSE. “FOR MY YEARS, I DID VERY WELL,” SHE SAYS WITH PRIDE.
Theresa
JANCIgar
At 80 years of age, Elaine Coburn is willing to put up with a few minor aches and pains. “It’s part of being my age,” she says, half joking. But, when she started to experience major pain doing housework, walking, even raising her arms, she and her husband, Donald, a retired thoracic surgeon, started to get concerned.

“The pain did not limit my activity, but it hurt to do normal things,” she says, “like standing at the stove cooking dinner, or if I would raise my arms to peel potatoes, the pain was so bad I had to go sit down for a while.”

The last straw came when she had a fall that left her in even more pain. “I didn’t realize until then that I had osteoporosis,” she says. “The fall certainly made things worse.” Fortunately, she recovered from her accident, but the back pain persisted, and Mrs. Coburn was getting frustrated with not being able to enjoy taking care of the home the couple has shared for decades.

At the urging of her husband, she made an appointment with a Cleveland Clinic Center for Spine Health surgeon.

“He did a very thorough examination, including a bone density test,” Mrs. Coburn says with satisfaction. “From the results, he suggested that I undergo kyphoplasty. He believed it would help me move better and relieve the severe pain.”

Cleveland Clinic was one of the first hospitals in the nation to use kyphoplasty for osteoporosis patients. The minimally invasive procedure involves depositing acrylic bone cement into vertebral bone that has collapsed from osteoporosis. The material raises the bone’s upper section and supports it in position, restoring the vertebra to near-normal height. This not only relieves the pressure and pain, but it also helps stabilize the spine and prevents further compression fractures.

After the discomfort related to the procedure itself subsided, Mrs. Coburn was amazed at the results. “I was so much better after the procedure,” she says with obvious pleasure. “I am now pain-free and can do anything I want.”
Elaine
COBURN
Cleveland Clinic’s Center for Spine Health is located on the main Cleveland Clinic campus and at Lutheran Hospital. Many Center for Spine Health specialists also have office hours at Cleveland Clinic family health centers, which are conveniently located in surrounding suburbs. If you require surgery, the operation will be performed at the main campus or Lutheran Hospital, but you may be able to have your pre- and postoperative doctor appointments at one of our family health centers.

Whether your goal is to get back to sports, work, hobbies or just enjoying life, the specialists at Cleveland Clinic’s Center for Spine Health can help.

**LOCATIONS**

**MAIN CAMPUS**
9500 Euclid Ave.
Cleveland, Ohio 44195
216.636.5860 or 866.588.2264

**LUTHERAN HOSPITAL**
1730 West 25th St.
Cleveland, Ohio 44113
216.363.2410

**INDEPENDENCE FAMILY HEALTH CENTER**
5001 Rockside Road
Independence, Ohio 44131
216.986.4000

**SOLON FAMILY HEALTH CENTER**
29800 Bainbridge Road
Solon, Ohio 44139
440.519.6800

**STRONGBUSVILLE FAMILY HEALTH AND SURGERY CENTER**
16761 SouthPark Center
Strongsville, Ohio 44136
440.878.2500

**WESTLAKE FAMILY HEALTH CENTER**
30033 Clemens Road
Westlake, Ohio 44145
440.899.5555

**WILLOUGHBY HILLS FAMILY HEALTH CENTER**
2570 SOM Center Road
Willoughby Hills, Ohio 44094
440.943.2500
Access to Cleveland Clinic’s Expertise at the Click of a Mouse

Patients are always welcome to travel to Cleveland, Ohio to reach our world renowned Cleveland Clinic physician specialists for a second opinion; however, we recognize the challenges surrounding arrangement of travel, time off of work and time away from family which is why we offer an easier, just as effective way, of getting a medical second opinion from our experts.

Cleveland Clinic’s MyConsult® Online Medical Second Opinion offers expert opinions for over 1,000 life-threatening and life-changing diagnoses. MyConsult® connects patients with the diagnostic expertise of world renowned physician specialists who will review the patient’s individual situation, answer their questions and provide a comprehensive report that they can share and discuss with their family and physician. Based on the medical second opinion patients receive from Cleveland Clinic, they can decide to travel to Cleveland Clinic for their treatment, or if they would like, stay in their hometown and receive treatment locally.

There are few decisions in life as important as those that impact your health. With Cleveland Clinic's MyConsult® Online Medical Second Opinion program, patients can be confident that they will have the information needed to make the best decision for themselves, and those who love them, without the time and expense of travel.

To learn more or to register to use MyConsult®, log onto www.eclevelandclinic.org/myconsult