

## Our Team



### MICHAEL C. GERLING, MD

Assistant Professor, Orthopaedic Surgery  
Director, Spine Service  
Board-Certified in Orthopaedic Surgery  
EDUCATION: University of California, San Diego  
RESIDENCY: Ochsner Clinic, New Orleans  
FELLOWSHIP: Case Western Reserve University  
AREAS OF EXPERTISE:  
Minimally Invasive Surgery, Disk Degeneration,  
Cervical Spine Conditions



### CARL B. PAULINO, MD

Assistant Professor, Orthopaedic Surgery  
Scoliosis Surgeon, Spine Service  
Board-Eligible in Orthopaedic Surgery  
EDUCATION: Saint George's University  
RESIDENCY: SUNY Downstate Medical Center  
FELLOWSHIP: NYU Hospital for Joint Diseases  
AREAS OF EXPERTISE:  
Scoliosis, Spinal Deformity, Back Pain,  
Total Disc Replacement



### SANJEEV AGARWAL, MD

Assistant Professor, Physical Medicine & Rehabilitation  
Director, Interventional Pain Management  
Board-Certified in Psychiatry and Pain Medicine  
EDUCATION: King George Medical College  
RESIDENCY: Nassau University Medical Center  
FELLOWSHIPS: Case Western Reserve University;  
University of Cincinnati  
AREAS OF EXPERTISE:  
Interventional Pain Management, Back Pain,  
Fluoroscopic Injections

- According to the American Academy of Orthopaedic Surgeons, 80% of Americans will suffer a bout of back pain in their lifetime.
- Back pain is the most common cause of job-related disability in America, according to the National Institutes of Health, and costs about \$50 billion a year in treatments.
- Approximately 1 in every 50 people will experience a herniated disk at some point in their life.

## Spinal Disorders Treated at the Comprehensive Spine Center

We provide a full spectrum of spine care, from conservative measures and pain management to minimally invasive procedures and large scale reconstruction of spinal deformity.

- Ankylosing Spondylitis
- Arthritis
- Cauda Equina Syndrome
- Cervical Radiculopathy
- Compression Fractures
- Degenerative Disc Disease (DDD)
- Fractures and Dislocations
- Herniated Disc
- Low Back Pain/Instability
- Myelopathy
- Sciatica
- Scoliosis
- Spinal Cord Injury
- Spinal Stenosis
- Spondylolisthesis
- Torticollis
- Traumatic Disorders of the Spine
- Whiplash

Most insurance plans are accepted, including Medicare, No Fault, Workers' Compensation and Managed Care Plans.

**Call for an Appointment  
or Additional Information  
(718) 270-2045**

#### MAILING ADDRESS

450 Clarkson Avenue, Box 30, Brooklyn, NY 11203

[www.downstate.edu/orthopaedics](http://www.downstate.edu/orthopaedics)



# University Orthopaedic Associates Comprehensive SPINE Center

An Affiliate of SUNY Downstate Medical Center  
Department of Orthopaedic Surgery & Rehabilitation Medicine



**SUNY  
DOWNSTATE**  
Medical Center  
University Orthopaedic Associates

**(718) 270-2045**

## About Us

The Comprehensive Spine Center is a multi-specialty group of highly trained physicians and care providers, exclusively dedicated to the most modern treatment options for spinal disorders of the neck and back.

Our patients receive comprehensive care for the myriad conditions that cause neck or back pain, including trauma, work-related injuries, spinal deformity, radiculopathy, infection, tumors, and degenerative spine diseases such as osteoarthritis, osteoporosis and kyphosis.

As the only academic medical center in Brooklyn, SUNY Downstate Medical Center is on the cutting-edge of research and technology. Our surgeons are the only ones in the borough employing the latest, minimally invasive surgical techniques. Smaller incisions, less blood loss, and faster recovery time result in the best possible outcomes for our patients.

We also understand the importance of communication. Consistent interplay among our various services ensures continuity of care under one healthcare umbrella.

We are dedicated to eliminating our patients' pain, improving their quality of life, and returning them to a fully functional lifestyle as quickly as possible.

## Practice Locations

### University Hospital of Brooklyn

470 Clarkson Avenue, Lower Level, Brooklyn, NY 11203  
710 Parkside Avenue, Brooklyn, NY 11226

### Long Island College Hospital

97 Amity Street, Brooklyn, NY 11201

### Park Slope

33 Prospect Park West, Brooklyn, NY 11215

### Bay Ridge

9202 Fort Hamilton Parkway, Brooklyn, NY 11209  
6900 4th Avenue, Brooklyn, NY 11209

### Canarsie

9413 Flatlands Avenue, Suite 102 East, Brooklyn, NY 11236

### Rockaway

114-12 Beach Channel Drive, Suite 7, Rockaway Park, NY 11694

## Back and Neck Pain— You Don't Have to Live With it

Many people live with daily back or neck pain, perhaps from a pinched nerve or auto accident. They often assume—incorrectly—that their only choices are to suffer or undergo major surgery.

However, at the Comprehensive Spine Center, we have many levels of treatment options available to alleviate their discomfort. Whether a crushed disc or just chronic, nagging pain, we can treat all spine problems.

### Disorders Related to Aging

The Baby Boomer generation is already experiencing age-related spinal problems such as spondylolisthesis, disc disease, sciatica, spinal stenosis, myelopathy and radiculopathy. Most conditions respond to conservative treatment. When surgery is deemed necessary, minimally invasive procedures generally result in a much quicker, easier and full recovery.

*The majority of spinal disorders can be treated without surgery.*

### Early Intervention is Advisable

After a complete medical history and physical examination, we generally begin with conservative treatment, such as anti-inflammatory medications, muscle relaxants, nerve stabilizers or prescription pain patches.

### Team of Physical Therapy Spine Specialists

Physical therapy is often very effective and may include modalities such as heat, cold, massage, ultrasound, electrical stimulation, traction or acupuncture, and a specialized exercise program. We have both inpatient and outpatient physical therapy facilities, and our therapists are sub-specialty trained to deal with spine problems, including manual therapy. If you prefer, we can also work with a physical therapist near you.



## Comprehensive Diagnosis



We work closely with board-certified musculoskeletal radiologists to provide a comprehensive diagnosis.

If pain still persists after conservative treatments are exhausted, we will order diagnostic tests, such as x-rays, CT scans, bone scans, MRI or nerve studies.

## Interventional Pain Management

A very small percentage of patients actually require surgery. Many people find relief from pain through non-surgical interventional procedures.

Our specialists in Interventional Pain Management use fluoroscopic-guided injections for non-surgical treatment of back and neck pain. In addition to its obvious therapeutic benefit, an injection can also play a very important diagnostic role in the identification of the source of pain for patients who have had back pain unresponsive to treatment.

Epidural or facet joint injections can be extremely effective in relieving chronic pain, sometimes permanently, and various types of nerve blocks may be used to avoid surgery. Spinal cord stimulation may also be an option in select cases.

## Scoliosis in Adults and Children

Scoliosis, an abnormal curvature of the spine, most often manifests itself in children ages 8-12. At the Comprehensive Spine Center we have orthopaedic spine surgeons who specialize in the diagnosis and care of patients with scoliosis, and offer the most advanced treatments available.



## Spine Surgery

When non-surgical options have been unsuccessful, surgical treatment can decompress the nerves, stabilize the spine and help to correct spinal deformities.

Some spinal procedures can be done with minimally invasive techniques, such as microscopic discectomies and cervical decompressions. In other cases, large scale reconstruction of spinal deformity may be necessary. Degenerative spondylolisthesis, spinal instability, sciatica or radiation into the arms are common disorders that respond very well to surgical intervention.



"People with sports injuries—led by boomers—are now the No. 2 group coming into the doctor's office, behind those complaining of a cold." — U.S. News & World Report

For patients who have had previous surgery and still experience difficulty, we are considered the leading experts in Brooklyn. Our team consists of orthopaedists, physiatrists, neurosurgeons, anesthesiologists, physician assistants, nurses and physical therapists.

## Minimally Invasive... Maximally Effective

Just as open knee surgery was rendered archaic by the advent of arthroscopy, spine surgery has recently taken a similar leap. When surgery is warranted, the procedures of today barely resemble those of the past. Only 10 years ago, if you had back surgery, you could expect to spend up to a week in the hospital and a year of recovery before returning to normal activities, not to mention a very large scar.

Our highly trained spine specialists are the only surgeons in Brooklyn performing advanced, minimally invasive spine surgery. We can repair herniated disks, correct deformities such as scoliosis, and perform spinal fusion for degenerative disks with minimal pain and discomfort to the patient. Most patients can walk the same day as surgery and leave the hospital the following day with only a bandaid!

## Advantages of Minimally Invasive Surgery

- Small incisions
- Small surgical scars
- Less blood loss
- Less trauma to the body
- Less post-operative pain
- Lower infection rate
- Shorter hospitalization
- Quicker recovery

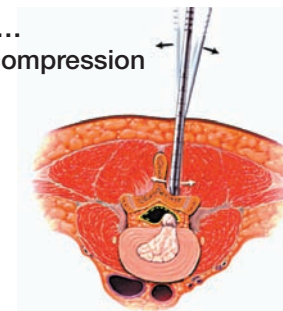


We are the only surgeons in Brooklyn performing state-of-the-art minimally invasive spine surgery. Most patients leave the hospital the following day with merely a bandaid!

## Nerve Root Compression... Microscopic Surgical Decompression



Traditional approaches require large incisions resulting in muscle damage. That delays recovery and can ultimately lead to decreased strength in the back.



A minimally invasive technique achieves a similar goal while minimizing tissue injury and collateral damage.

*Ms. Miller had spondylolisthesis...tremendous pain, bone crunching on bone, pressure smashing down on the nerve roots.*

*"The pain was going on for eight or nine years. I was very depressed. I'm a single mother and I always worked. I was NEVER out of a job. Now I couldn't work, I had no income and this was DEVASTATING. I couldn't stand long enough to take a shower. When I was walking I had to stop every three or four minutes to take a break."*

*She had been seen by at least four doctors. They sent her for everything except, apparently, an MRI and an evaluation for spinal surgery. "People warned me against doing back surgery."*

*"I have a whole new life now. After the surgery, half the pain went away overnight; I could walk the day after my surgery. It's only three months since the surgery and every day I have less and less pain. I am EXTREMELY relieved. Now I get to do things with my grandson. I can take him for walks."*

— Fayverlynn Miller