



LETTER FROM OUR LEADERS

Dear Colleague or Patient:

We're pleased to report that NSPC Brain & Spine Surgery (NSPC) was ranked among the top 5 neurosurgery practice groups in the U.S. by Castle Connolly in a new, national survey of top physician practices, health systems and hospitals. NSPC was ranked #1 in New York State in the same survey.

We believe NSPC has flourished thanks to our group's unmatched, decades-long commitment to outstanding, patient-centered neurosurgical care and excellence in spine and brain surgery.

NSPC neurosurgeons diagnose and treat thousands of people every year with some of the most complex health problems known to medicine. Yet, while this volume is comparable to some of the country's largest neurosurgical programs, our doctors still provide patients with a "boutique" center of personalized, spine and brain surgery.

The latest edition of our practice journal offers evidence of how our top doctors use advanced technologies and new surgical procedures to treat adults with neck, back, brain, and neurovascular conditions.

Thank you for the trust you've placed in us.



MICHAEL H. BRISMAN M.D.
Attending Neurosurgeon & Chief Executive Officer
NPSC Brain & Spine Surgery

Michael N. Brisman

WILLIAM J. SONSTEIN M.D.Attending Neurosurgeon & President NPSC Brain & Spine Surgery

William J. Sonstein

NSPC Brain & Spine Surgery Ranked #1 Neurosurgery Practice in NY

NSPC Brain & Spine Surgery (NSPC) has been ranked as the #1 neurosurgical practice in New York State and #4 neurosurgery practice group in the U.S. by Castle Connolly, a New York City research and information company. NSPC was one of the physician practice groups recognized in a new national awards survey called the *2024 Castle Connolly Accolades*.





According to Steve Leibforth, Managing Director, Castle Connolly, "we introduced *Castle Connolly Accolades* this year to recognize multiple institutions – ranging from health systems providing comprehensive care to an entire region, to community-based physician practices excelling in specific and specialized care. These institutions," he notes, "all employ exceptional physicians, who have been recognized as *Castle Connolly Top Doctors*, ensuring the highest quality care for their patients."

"We are honored to have been ranked by Castle Connolly as one of the top neurosurgery practices in the nation and the top ranked neurosurgery physician practice in New York State," declares Michael H. Brisman M.D., the chief executive officer of Rockville Centre, NY-based NSPC. "This achievement," he asserts, "confirms our practice's 65-year commitment to patient care and excellence in spine and brain surgery."

NSPC is Long Island's largest, independent neurosurgical group with 12 experienced physicians and seven conveniently located offices on Long Island and in Manhattan.

The NSPC Castle Connolly "Top Doctors" are: Jonathan L. Brisman, M.D. (Cerebrovascular, Spine and Brain Surgery), Benjamin R. Cohen, M.D. (Spine Surgery), Vladimir Y. Dadashev, M.D. (Spine Surgery), Zachariah M. George, M.D. (Spine Surgery), Yusef Imani, M.D. (Spine Surgery), Stephen T. Onesti, M.D. (Spine Surgery), and Sachin N. Shah, M.D. (Spine Surgery).

For decades, Castle Connolly has been conducting a peer-review survey to select the region's top doctors based on the theory that medical professionals are best qualified to assess the qualifications of other practitioners. Licensed physicians vote online for those doctors they consider outstanding. A Castle Connolly doctor-led research team then counts the nominations and vets the nominee pool with the aid of several screens, including confirming board certifications and investigating disciplinary histories. In 2020, Castle Connolly was acquired by the Everyday Health Group, a division of J2 Global Inc.



Michael H. Brisman, M.D. Trigeminal Neuralgia Brain Tumors



William J. Sonstein, M.D. Spine Surgery



Ramin Rak, M.D. Spine Surgery Brain Tumors



Artem Y. Vaynman, M.D.Spine Surgery



Jonathan L. Brisman, M.D. Cerebrovascular Neurosurgery Brain Tumors Spine Surgery



Stephen T. Onesti, M.D. Spine Surgery



Sachin N. Shah, M.D.Spine Surgery
Brain Tumors



Vladimir Y. Dadashev, M.D. Spine Surgery



Zachariah M. George, M.D. Spine Surgery



Benjamin R. Cohen, M.D.Spine Surgery



Xavier P.J. Gaudin, D.O. Spine Surgery General Neurosurgery



Yusef Imani, M.D. Spine Surgery

NYIT-College of Osteopathic Medicine, NSPC Brain & Spine Surgery Extend "Mentorship in Neurosurgery" Program for Medical Students

Leaders of the New York Institute of Technology-College of Osteopathic Medicine (NYIT-COM) and NSPC Brain & Spine Surgery (NSPC), Rockville Centre, NY, have announced that the student "Mentorship in Neurosurgery (MIN)" program that was launched in February 2023 has been continued for the Fall 2023 Semester.

As many as twelve "academically qualified NYIT basic science students" are eligible to join the program. So far, five NYIT-COM students have been picked to participate. They are Shakir Naji (Class of 2026), Justin Popp (Class of 2026), Khaled Refaai (Class of 2026), Daniel Shalonov (Class of 2026), and Jack Virga (Class of 2026).

Each of the first-, second-, or third-year medical students, or recent NYIT-COM graduate, selected for the new educational initiative will be paired with an NSPC neurosurgeon in a "rotation of shadowing experiences" to provide them with insights into the care of patients with complex brain, spine, and neurovascular conditions.

The students or graduates will be picked to participate in MIN at the discretion of NYIT-COM Dean Nicole Wadsworth D.O. To ensure the greatest possible educational benefit for each participant, there will be a 1:1 pairing of the NYIT-COM student to their NSPC "mentor."

MIN "mentees" will be required to complete eight shadowing hours per rotation for the duration of the program with a minimum of two, four-hour rotations in each of the three neurosurgical specialties. A certificate of completion will be provided to all students who have successfully completed their rotations.

According to NSPC CEO and attending neurosurgeon Michael H. Brisman M.D., F.A.C.S., "this educational initiative recognizes our practice's decades-long commitment to helping educate and mentor new generations of health care providers." He points out that "students frequently, and informally, shadow our doctors while they consult with patients. Our partnership with the New York Institute of Technology (NYIT) College of Osteopathic Medicine of Old Westbury, NY, formalizes what we have done in the past and is a fitting way to celebrate the 65th anniversary of our practice's founding on Long Island."

For more information about the Mentorship in Neurosurgery (MIN) program, contact the NYIT-COM Long Isl. Campus, Serota Academic Ctr., Rm. 203, Northern Blvd., Old Westbury, NY 11568, (516) 686-3997.



NSPC Surgeon William Sonstein Co-Authors Article in Neurosurgery

William J. Sonstein M.D., attending neurosurgeon and President, NSPC Brain & Spine Surgery.

William J. Sonstein M.D., F.A.C.S., a senior attending neurosurgeon and the President of NSPC Brain & Spine Surgery is one of the co-authors of an article just published in *Neurosurgery*, the official publication of the Congress of Neurological Surgeons (CNS). Published monthly, this international medical journal features scientific articles on clinical or experimental surgery topics of interest to practicing neurosurgeons and other providers who specialize in the treatment of brain, spine, peripheral nerve conditions.

Entitled, "Development and clinical validation of a hook effect-based lateral flow immunoassay sensor for cerebrospinal fluid leak detection," Dr. Sonstein's article expands upon an oral presentation he delivered about a new, point-of-care cerebrospinal fluid (CSF) testing strip at the 2023 scientific meeting of the Congress of Neurological Surgeons (CNS) and offers evidence of the test strip's efficacy.

An expert in complex spinal surgery, Dr. Sonstein worked with an international team to invent a new inexpensive, rapid, point-of-care cerebrospinal fluid (CSF) diagnostic testing strip.

It's not uncommon for patients to exhibit a build-up of unknown fluids postoperatively, particularly after being treated for a lumbar spine condition. Since undiagnosed CSF leakage can lead to serious complications, including meningitis, abscess, and pneumocephalus, it is crucial to rule out the presence of a leak rapidly and noninvasively.

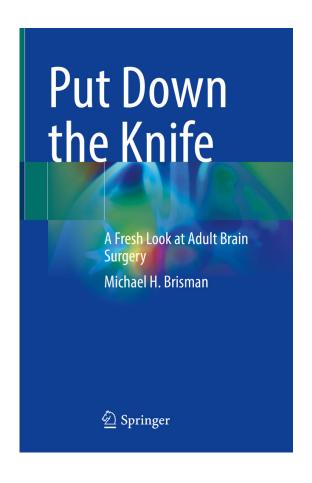
According to Dr. Sonstein, "a laboratory-based CSF test requires that a sample be sent out for analysis which can take days before results are returned. I knew there was a need for fast, in-hospital test that could be used as part of a daily, post-operative protocol to make sure patients were safe." The test strip Dr. Sonstein helped to invent addresses this need by quickly indicating the presence of CSF without requiring outside testing or special training for the user. He hopes that other neurosurgeons, as well as orthopedic spine surgeons and emergency room surgeons will see the benefit in using this new diagnostic tool.

NSPC Surgeon Michael Brisman Authors Brain Surgery Textbook

A new medical textbook authored by neurosurgeon Michael H. Brisman M.D., the CEO of Rockville Centre, NY-based NSPC Brain & Spine Surgery, has been published by Springer Nature Switzerland AG. Entitled, *Put Down the Knife: A Fresh Look at Adult Brain Surgery*, the book promotes the importance of minimally invasive surgical procedures and conservative treatment options. Copies of *Put Down the Knife* may be ordered from several online booksellers and the publisher at springer.com.

According to Springer, "This book explores adult brain surgery from a more conservative vantage point, highlighting potential errors in thought related to decision-making and rationales for brain surgery as well as interpretation of the surgical literature." In addition, "focused chapters" provide a discussion of "less invasive and even non-invasive approaches for various conditions of the brain, including tumors, cysts, hematomas, pain and movement disorders, skull base disorders, and much more."

Board-certified by the American Board of Neurological Surgeons and a Fellow of the American College of Surgeons, Dr. Brisman has been in practice on Long Island for over 25 years. He is the Co-Medical Director of The Gamma Knife® Center at Mount Sinai South Nassau hospital in Oceanside and has served as the Chief of Neurosurgery and Co-Director of the Neuroscience Institute at NYU Winthrop Hospital (now NYU Langone – Long Island) in Mineola. In addition, Dr. Brisman has served as President of the Nassau County Medical Society and the New York State Neurosurgical Society. He's a long-time resident of Nassau County.



THANKS FOR YOUR SUPPORT!





■ BEST BRAIN CENTER

✓ BEST NEUROSURGEON XAVIER P.J. GAUDIN, D.O.

NSPC Neurosurgeon Xavier Gaudin & NSPC Brain Tumor Center Are Finalists for 2024 Long Island Choice Awards

The "Brain Tumor Center" at NSPC Brain & Spine Surgery (NSPC) and neurosurgeon Xavier P.J. Gaudin D.O. were among the finalists in the 2024 "Long Island Choice Awards Presented by PSEG Long Island," an annual competition organized by Richner Communications, Inc. and Herald Community Newspapers. The contest recognizes outstanding small and medium-sized local businesses, and the people who work for them, throughout Nassau and Suffolk counties. The public had a chance to vote for their favorite businesses and professionals in 13 different industry divisions and approximately 250 categories between January 4 and February 4, 2024.

"I'm thrilled that the NSPC Brain Tumor Center and my partner, Xavier Gaudin, have been nominated as finalists in the 'Best Brain Center' and 'Best Neurosurgeon' categories," said Michael H. Brisman M.D., the CEO of Rockville Centre, NY-based NSPC. "Our practice has provided patients from Long Island, and elsewhere, with the most compassionate and comprehensive adult brain, back, neck, and neurovascular care available for over 65 years. The selection of Dr. Gaudin and our Brain Center as finalists confirms a tradition of patient-centered, clinical excellence at NSPC."

Spine Fusion Procedure Takes Herniated Disk Treatment to a New Level of Success

wenty years as a New York City police officer took their toll on Gregory Slator's back. His low back pain progressed to the point where he could barely walk, and standing straight up was nearly impossible. He said the pain that radiated down his right leg felt like an "electric shock." He described his pain as a "10," on a 10-point scale.

Typical medicines and therapies, including steroid injections, did not help. The life of this Long Island father of two was being dominated by his pain. Fortunately for Mr. Slator, a neighbor recommended that he see Artem Vaynman, M.D., a neurosurgeon expert in spinal surgery at NSPC.

"The weakness on Mr. Slator's right side was significant," says Dr. Vaynman. "He had three disk herniations in his lower spine that were actually causing him to lean to the side, and making him limp. Mr. Slator is young, and otherwise healthy and fit. This was interfering significantly with his quality of life."

"Dr. Vaynman went right in and told me what needed to be done," reports Mr. Slator. "I didn't have to think too long about this. I decided that I didn't want to be like other

" I'm Glad I Got This Surgery... I Have No Pain Now, And I Can Walk Again With No Problem."

Gregory Slator



people I knew, taking drugs for years but getting no relief. There was no getting around it." Dr. Vayman scheduled the surgery, a three-level decompression and fusion, at Mercy Medical Center in Rockville Centre. NY.

A spinal fusion procedure helps restore disk height and immobilizes vertebrae to stop motion at painful joints and reduce any unnatural pressure on the neighboring nerve roots. These treatments use surgical implants and natural bone graft material that is placed between vertebrae after the surgical removal of the damaged intervertebral discs. In healing, the graft material grows in the disc space, joining the two vertebrae together, effectively eliminating the painful motion.

The techniques necessary for successful three-level decompression are still new, and Dr. Vaynman has had great success in performing this procedure. "This procedure addresses the problem completely," he observes. "If you do a less extensive procedure, such as a laminectomy, in a case like this, the patient will be far more likely to require a second surgery."

Mr. Slator is pleased with his results. "I'm glad I got this surgery. All things considered, it's a success and I'm very happy with how things have turned out. I have no pain now and I can walk again with no problem. I'd recommend this surgery with Dr. Vaynman for other people with this problem."



Artem Y. Vaynman, M.D.

Dr. Vaynman is a board certified neurosurgeon with special expertise in both complex spinal surgery and minimally invasive surgery. He treats a variety of spine problems, such as degenerative scoliosis, spinal stenosis, compression fractures, back pain, herniated disk, and sciatica.



Scan to learn more about Dr. Vaynman

Neurosurgeons Collaborate to Treat Giant Symptomatic Meningioma



RAMIN RAK. M.D.

- Spine Surgery
- Brain Tumors



Scan to learn more about Dr. Rak



JONATHAN BRISMAN, M.D.

- Cerebrovascular Neurosurgery
- Brain Tumors
- Spine Surgery



CLINICAL PRESENTATION:

For several days, an otherwise healthy, 62-year-old woman displayed confusion, headaches, and word-finding difficulties. She was brought to the emergency department at a local hospital and underwent a CAT scan of the head which showed a large mass in the left frontal region with mass effect, consistent with a brain tumor.

The patient was admitted to the hospital's intensive care unit and started on steroids and seizure prophylaxis medications. A subsequent MRI scan, with and without contrast, revealed that the large mass was a giant left frontal extra-axial meningioma (Fig. 1).

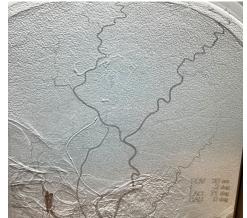
CLINICAL MANAGEMENT AND TREATMENT:

The case was discussed in detail with the patient's family and the patient herself, whose speech had improved somewhat due to the steroids. Considering the size and the location of this tumor, neurosurgeon Ramin Rak M.D. recommended resection of the tumor with the aid of neuronavigation. To reduce the blood supply to the tumor prior to the craniotomy, Dr. Rak enlisted his colleague, cerebrovascular neurosurgeon Jonathan Brisman M.D., to embolize some of blood vessels feeding the tumor (Fig. 2). Successful embolization of the feeding vessels from the middle meningeal artery significantly helped the tumor resection that followed (Fig. 3).

Surgery was performed by Dr. Rak. A craniotomy exposed the underlying tumor which was identified and removed using microsurgical and fine surgical techniques.

A piece of DuraGen was then trimmed properly and placed over the cortex and the surrounding dura. The craniotomy bone flap was put back together using a mixture of round titanium burr hole covers and one straight plate. There were no complications, and the patient was transferred back to the intensive care unit in stable condition. Since her discharge, she has done very well and has made a full recovery.





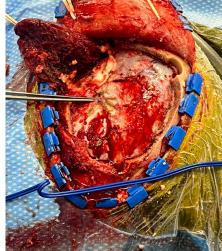


Figure 1 Figure 2 Figure 3



Our experienced neurosurgeons are leaders in "bloodless" spine and brain surgical procedures, including endoscopic spine surgery, radiosurgery, and other advanced, minimally invasive techniques. Most appointments can be scheduled within five business days.



Scan here to request an appointment for a consultation.

Revision Surgery Treats Intractable Neck Pain & Cervical Deformity



CLINICAL PRESENTATION:

The patient is a 61-year-old female with a history of rheumatoid arthritis. She is 2-1/2-years status post C3-C7 laminectomy with posterior instrumentation and fusion. This procedure was performed to treat multilevel disc herniations with spinal cord compression following a motor vehicle accident.

She did well for several years, but then developed new onset of intractable neck pain with radiation to both upper extremities. She also had difficulty holding her head up.

CLINICAL MANAGEMENT & TREATMENT:

Her rheumatologist ordered an x-ray which showed anterolisthesis of C7-T-1 with kyphosis and instability (Fig. 1).

The patient underwent a one-day, two-stage procedure. Stage 1 was a C6-7, C7-T1 anterior cervical discectomy and fusion with reduction of the anterolisthesis and correction of the kyphosis.

Stage 1 was immediately followed by Stage 2 which was extension of her posterior instrumentation and fusion from C3 down to T3. Neuro-navigation was used to assist with the difficult anatomy of the upper thoracic spine.



Figure 1



CONCLUSION:

The patient had an uneventful postoperative course with significant improvement in her preoperative symptoms and is now able to maintain a good posture (Fig. 2).

Figure 2

Acoustic Neuroma Treated Successfully with "Bloodless" Radiosurgery



MICHAEL BRISMAN M.D.Brain Surgery



Scan to learn more about Dr. Brisman

CLINICAL PRESENTATION:

This is a 55-year-old woman with a history of hypertension who had one year of progressive hearing loss and ringing (tinnitus) in the left ear. The hearing in that ear was now about 50% of normal. She had no problems with her right ear, balance was normal, and she had no other complaints. Formal audiology testing confirmed hearing loss in the left ear only. MRI with and without gadolinium demonstrated a 1.3 cm solid mass in the left cerebello-pontine angle and internal auditory canal that showed homogeneous enhancement, consistent with an acoustic neuroma.

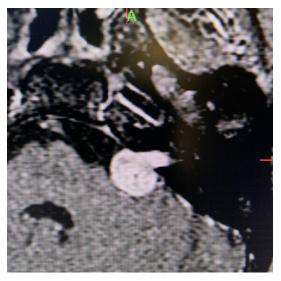


Figure 1: Baseline brain MRI showing mass in the left cerebello-pontine angle consistent with an acoustic neuroma (enhanced lesion in center).

CLINICAL MANAGEMENT AND TREATMENT:

Treatment options included (1) observation; (2) stereotactic radiosurgery; and (3) surgery. Stereotactic Radiosurgery (superfocused radiation treatments), specifically Gamma Knife (GK), was chosen because the tumor was of moderate size and GK offered comparable control to open surgery / craniotomy, but with a much lower risk profile. A treatment plan was made that was conformal to the tumor. A prescription of 12.5Gy to the 50% isodose line was delivered (Figure 2). This plan involved a mean cochlear dose of 3.5Gy.

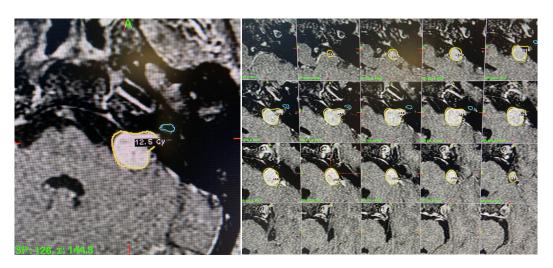


Figure 2: Intra-operative Gamma Knife treatment planning for the left acoustic neuroma. A tightly conformal treatment is set for 12.5Gy to the 50% isodose line (green circles). The cochlea has also been contoured, based off a fused image from a fine cut T2 sequence (blue circle).

Going forward, the patient will be followed clinically and with brain MRIs. It is likely that this patient is cured of her acoustic neuroma.

Minimally Invasive Spine Surgery Treats Acute Leg Pain and Foot Weakness



VLADIMIR Y. DADASHEV, M.D.Neurosurgeon



Scan to learn more about Dr. Dadashev

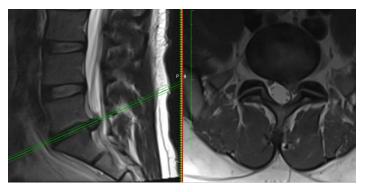


Figure 1. Original MRI of Lumbar spine that was done within weeks of onset of symptom. See L5-S1 large, herniated disc fragment eccentric to the left causing significant central spinal canal and left L5 and S1 nerve roots compression.

CLINICAL PRESENTATION:

The patient is a 50-year-old male who, over a six-month period, presented with a new onset of significant left dermatomal radicular leg pain radiating into the foot, numbness, tingling and a trace weakness. He denied any right leg symptoms.

An MRI study showed a large left-sided L5-S1 disc herniation with significant left L5 and S1 nerve roots compression (Fig. 1). Since the patient had manageable symptoms, we elected to proceed with the conservative treatment first.

MANAGEMENT & TREATMENT:

He immediately started an extensive course of physical therapy (PT) but was also started on medication including, Motrin and Tylenol, a Muscle relaxant, and occasional Tramadol. The patient was also referred to a pain management (anesthesiologist) specialist for further care, including two rounds of epidural injections.

The patient's symptoms initially improved but then, upon further follow up, he reported a significant worsening with a sharp-shooting electrical radicular pain, severe tingling, and progressive left leg and foot weakness (including a partial foot drop) consistent with compression of the

L5-S1 nerve roots. His exam was consistent with normal upper extremities and right lower extremity.

Left examination revealed a totally normal proximal (iliopsoas, quadriceps) exam but significant weakness of tibialis anterior, extensor hallucis longus, and gastrocnemius muscle groups. Non-operative treatment options were discussed with the patient and a short route of conservative physical therapy and pain management was prescribed.

Unfortunately, his symptoms progressed. An urgent, minimally invasive, left L5-S1 microdiscectomy was recommended. The patient elected to proceed.

In surgery, a portion of left L5-S1 lamina was removed and a safe removal of herniated disc was confirmed with complete decompression of spinal canal left L5 and S1 nerve roots.

CONCLUSION:

The patient had immediate and complete resolution of his symptoms, including restoration of his left leg/foot strength. **He returned to work within weeks** and was followed for six months after surgery. Post-operative MRI imaging showed complete resection of the disc herniation with evidence of additional space created with the partial, left hemi-laminectomy (Fig. 2).

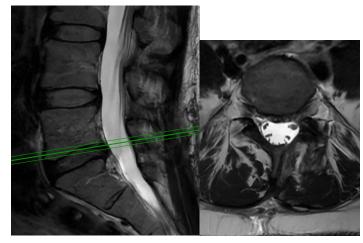


Figure 2. At 6 months, a post-operative MRI shows the complete resection of the L5-S1 disc herniation with central spinal canal decompression and L5 and S1 nerve root decompression achieved on both sides.

Care Centers

Spine CentersNassau County:

William J. Sonstein, M.D. Artem Y. Vaynman, M.D. Stephen T. Onesti, M.D. Sachin N. Shah, M.D. Vladimir Y. Dadashev, M.D. Benjamin R. Cohen, M.D. Xavier P. J. Gaudin, D.O. Yusef Imani, M.D. Jonathan L. Brisman, M.D.

Suffolk County:

Ramin Rak, M.D. Zachariah M. George, M.D.

Cerebrovascular/ Neuroendovascular Center

Jonathan L. Brisman, M.D.

Trigeminal Neuralgia Center

Michael H. Brisman, M.D.

Stereotactic Radiosurgery Center

Michael H. Brisman, M.D. Ramin Rak, M.D.

Ultrasonic Spine Institute

William J. Sonstein, M.D.

Brain Tumor Center

Michael H. Brisman, M.D. Jonathan L. Brisman, M.D. Ramin Rak, M.D. Sachin N. Shah, M.D. Xavier P. J. Gaudin, D.O.

Minimally Invasive Brain Surgery Center

Michael H. Brisman, M.D. Jonathan L. Brisman, M.D. Ramin Rak, M.D. Sachin N. Shah, M.D. Xavier P. J. Gaudin, D.O.

Office Locations



Rockville Centre 100 Merrick Road Suite 128W Rockville Centre, NY 11570 (516) 255-9031



Lake Success
One Hollow Lane
Suite 212
Lake Success, NY 11042
(516) 442-2250



Bethpage 4250 Hempstead Turnpike Suite 4 Bethpage, NY 11714 (516) 605-2720



Commack 353 Veterans Memorial Hwy. Suite 303 Commack, NY 11725 (631) 864-3900



West Islip 500 Montauk Hwy. Suite K West Islip, NY 11795 (631) 983-8400



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