

ONSF Research Shows Decrease in Opioid Consumption After Rotator Cuff Repair



Paul Sethi, MD

ONSF recently announced study results showing that patients undergoing arthroscopic rotator cuff repair (ARCR) surgery experience greater pain relief and

consume significantly fewer opioids when a liposomal bupivacaine field block is administered in addition to an interscalene block. The research was presented at the 2018 American Shoulder and Elbow Surgeons (ASES) Annual Meeting in Chicago.

The study compared a control group of primary ARCR patients given an ISB with bupivacaine to a second group of primary ARCR patients who received the same ISB in addition to a field block. "These study results clearly suggest that the addition of a liposomal bupivacaine field block to a bupivacaine interscalene nerve block for rotator cuff repair makes a significant difference in decreasing the level of pain patients experience following surgery, and thus the number of opioids they need to manage pain during their recovery period," said Paul M. Sethi, MD, lead researcher and President of ONSF. "High opioid prescribing and overprescribing for postsurgical pain carries not only acute risks related to opioid-related adverse effects, but also the risk of long-term opioid use. Through greater use of multimodal, opioid-minimizing pain management strategies, there is an opportunity to keep patients safe from these dangers."

The results from the study also offer evidence based guidance on the quantity of postoperative opioids that should be adequate to manage pain in patients undergoing ARCR. There are no other studies which use patient derived data to determine how many pills patients should be given after rotator cuff surgery. "Information from the Centers for Disease Control and Prevention (CDC) let us know that opiate use beyond five days, as well as the need for prescription refills, directly increase the risk of developing opiate dependence. This postoperative pain protocol helps patients avoid these two risks," Sethi concluded.

"Our findings suggest that arthroscopic rotator cuff repair patients treated with liposomal bupivacaine along with an interscalene nerve block should be prescribed no more than 25 oxycodone 5 mg pills—a stark contrast to the current average amounts prescribed, that a recent report – Exposing a Silent Gateway to Persistent Opioid Use – found to be about 93 pills," continued Dr. Sethi. "This meaningful reduction in the volume of pills prescribed not only helps reduce the risk of opioid addiction or dependence in postsurgical patients, but also the quantity of unused pills in the home, which are often improperly disposed of or stored."

This research and its impressive results underline the ONSF mission: to develop, validate and disseminate advances in orthopedic and neurosurgery, clinical research, treatment of musculoskeletal disorders, rehabilitation protocols, and injury prevention to improve patient care on a broad scale.

FEATURED ARTICLES -

3 *10th Annual Medical Education Conference*

6 *Research Intern Experience*

7 *Big Problems with the Big Toe— Mark Yakavonis, MD*

IN THIS ISSUE

On the Cover - Decrease in Opioid Consumption	1
President's Message	2
Save the Date	2
10th Anniversary Medical Educ. Conf.	3
Golf Outing— A Hole in One	4
Mini-Med School	4
Injury Prevention for the Golf Enthusiast	5
Youth Football—Know the Facts	5
5K Race to Stop the Opioid Epidemic	6
Message from an ONSF Intern	6
Big Problems with the Big Toe Mark Yakavonis, MD	7

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Message from the President ...

Dear Friends,

Happy New Year! Welcome to the latest edition of the ONSF newsletter. Each year we continue to expand, publish our outstanding research and educate our health care community, local athletes, STEM participants and interns.

In November, the ONSF Medical Education Conference celebrated its 10th anniversary. This conference, attended by nurses, trainers, therapists and doctors alike, provides world class lectures and cost-free continuing education credit for the attendees. The value of having our medical community so well "musculoskeletally" educated and the direct implications that this education plays into the care of our friends and families is invaluable. Special kudos to John Filippelli and Lucy Stitzer for being our non-medical headliners.

Our recent study that examined risk factors for rotator cuff healing on a biological level, was the lead article in the American Journal of Sports Medicine. This is the world's most prestigious sports medicine journal. Attaining lead article status suggests that the impact of the study is, well, a big deal. And, to brag a little more, this isn't our first lead article to appear in a top tier journal.

Because our studies have attracted substantial national attention, we are now engaged in multi-center studies. That means major medical centers that traditionally produce studies are tagging on to ONSF generated ideas. That is a huge compliment to us.

I won't pat ourselves on the back any further, but I encourage you to read through this edition and check out our very successful fund raising events, our internship program and, of course, our workshops. I hope you will enjoy Dr Yakavonis' article on new treatments as much as I did. Thank you for your continued, very generous support!




Paul M. Sethi, MD

Save the Date. . .

11th Annual ONSF Golf Outing - The Stanwich Club, Monday, June 10, 2019

**Race to Stop the Opioid Epidemic — 7th Annual ONSF 5K RUN/WALK EXPO
Sunday, Sept. 15, 2019—Eastern Greenwich Civic**

**11th Annual ONSF Medical Education Conference— Saturday, Nov. 2, 2019
Greenwich Hospital, Noble Auditorium**

10th Annual ONSF Medical Education Conference ...

On Saturday, November 10th, over 140 doctors, nurses, physician assistants and physical and occupational therapists attended the **ONSF 10th Annual Medical Education Conference**. The one-day event co-chaired by Drs. Tamar Kessel and Mark Vitale took place at the Greenwich Hospital Noble Auditorium, Greenwich, CT.



The accredited course entitled **Enhancing Patient Safety in Orthopaedic Surgery, Sports Medicine & Neurosurgery** reviewed advances for improving safe orthopedic surgery, sports medicine and neurosurgery. Specific technological innovations in surgical approaches and advances in regenerative medicine to reduce the need for surgical interventions were addressed, as well as updates on the role of diet, exercise and medications to treat musculoskeletal conditions. Additionally, strategies to reduce the utilization of narcotic medications was emphasized. A broad spectrum of pediatric and adult orthopedic and neurosurgical conditions and problems were presented. Talks were delivered by a faculty of orthopedic surgeons, sports medicine physicians, neurosurgeons, physical therapists, physiatrists and radiologists.

John "Flip" Filippelli, President, Production & Programming at YES Network was Keynote Speaker. "Flip," one of the most influential and respected executives in all of sports television, is responsible for every aspect of the critically acclaimed on-air content for the YES Network, the pre-eminent regional sports network in the nation. Along with "Flip," **ONSF** was pleased to include Lucy Stitzer, Founder Dirt to Dinner, as Guest Presenter. This very fine organization educates consumers about the agricultural supply chain, food ingredients and diet trends.

The Medical Education Conference, underwritten by an anonymous **ONSF** donor, is free of charge to all medical professionals who receive continuing education credits certified by Greenwich Hospital.



John "Flip" Filippelli
Keynote Presenter



Diane Durante
Bob Zaita



Mark Camel, MD
Margaret Patty



Jeff Heftler, MD, Tamar Kessel, MD, Conference Co-Chair
Vicki Leeds Tananbaum, VP ONSF, John "Flip" Filippelli,
Lucy Stitzer and Mark Vitale, MD, Conference Co-Chair



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Lodebole, Doris Dubail



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Rex Delacruz



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Victoria Costabile,
Tammy Pastore, Tori Kroll

10th Anniversary Golf Outing - a Hole in One...



ONSF, in conjunction with Greenwich Hospital, held its 10th Anniversary Golf Outing

on Monday, June 11th, 2018 at the outstanding Stanwich Club in Greenwich, Connecticut. Golfers enjoyed lunch on the terrace followed by a round of golf. Later in the day, non-golfing friends and supporters joined the players for cocktails, auction and a dinner reception. Within the realm of its mission, this partnership provided an outstanding golf experience to specifically benefit ONSF clinical research, medical education and community outreach programs all of which substantially improve patient treatment and care while enhancing healthy, active living. Dr. Paul Sethi, orthopedic surgeon and Foundation President, announced that the ONSF major research initiative ***Unraveling the Opioid Epidemic in Post-Surgical Patients*** continues to progress toward resolving this significant problem that is affecting a very sizable group of individuals.

Michael Clain, MD, Adam Ercoli, Rich Granoff and Vicki Leeds Tananbaum chaired the event and were assisted by Golf Captain Chair, Jeff Mendell. The Auction committee, led by Amy Sethi, amassed an outstanding array of lots including a

party catered by Watson's with Horseneck Wines, a weekend drive in a Bentley Bentayga SUV from Miller Motorcars, the incredible Jaeger-Coultre's "Master Grande" watch from Betteridge Jewelers, a round of golf for four at the magnificent Friar's Head Club, chef's dinner party created by Albert DeAngelis, and many more exciting items with an emphasis on sports, travel and unique experiences.

The Honorable State Senator Scott Frantz joined the festivities to present an honorary citation to Frank Corvino, ONSF Board Member Emeritus, former CEO and President of Greenwich Hospital and CEO of



Corvino & Corvino Consulting. In 2008, Mr. Corvino endorsed the ONSF strategic plan and set its alliance with Greenwich Hospital in place. His dedication to enhancing patient care and health services at Greenwich Hospital complemented the goals of ONSF. Without hesitation Mr. Corvino partnered with ONSF as a Board member to enhance its programs. All those gathered saluted Frank Corvino for his commitment to ONSF and his dedication to the well-being of others.

Mini-Med School Continues to Make an Impact...



Sixteen students, from 10 high schools had the "ultimate" hands-on medical experience, while attending the 6th annual ONSF Mini-Med School program that was held at the ONSF Arthroscopy, Surgical Skills and Biomechanical Research Laboratory. From June 25th to 28th a series of labs, lectures and surgical simulations were featured. Students learned first-hand from orthopedic and neurosurgical physicians, not only about musculoskeletal disorders but also more broadly about careers in medicine. Students participated in hands-on workshops including casting, suturing, scrubbing, the operating room environment, and ultrasound.

High school students represented Poly Prep Country Day, Sacred Heart, Fusion Academy Westchester, King School, Mamaroneck High, New Canaan High, Newtown High, Greenwich High, St. Luke's School and Rye Country Day. During the school year, ONSF reaches out to the Head of the Science Departments at various high schools requesting they submit the names and resumes of 4 rising sophomores or juniors whom, in their opinion, demonstrate a sincere interest in science or medicine. The Mini-Med School Chairs review and evaluate the applications and ultimately award this unique opportunity to a final class size of 16 students.



Injury Prevention for the Golf Enthusiast...

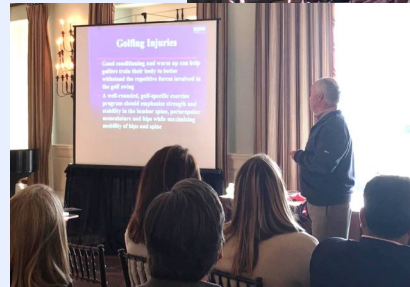
Attended by 35 Round Hill Club golfers, ONSF presented ***For the Golf Enthusiast—Injury Prevention and Proper Conditioning***, offering practical tips on how to stay in the game and out of the doctor's office.

The April 5th talk, delivered by Dr. James Cunningham, presented information on the most common golfing injuries to the back, shoulder, elbow and knee and the best treatment techniques.

Also included was information on how poor fitting equipment may prompt compensating movements that can be injurious to joints and muscles.

Goals for pre-golf physical conditioning to optimize strength and flexibility were addressed by Matthew Dunning, DPT, who explained that golfers should prepare themselves by implementing a pre-golf exercise routine. Matthew interacted with members demonstrating

conditioning techniques that have proven to reduce the risk of golf related injuries and improve the golfer's game.



Youth Football—Know the Facts...

Youth football offers players a positive, fun filled experience. In order to gain the most from participating, however, student athletes need to be knowledgeable about best practices. With this in mind, ONSF presented Community Outreach programs in August and September to high school football teams including Greenwich HS, New Canaan HS, Iona Prep, Darien HS and



Trinity. An average of 125 players attended each of the seminars entitled ***Know the Facts about Nutrition, Hydration, Vaping, Supplementation and Performance Enhancing Drugs***.

Guidelines for adequate hydration before, during and after practice were discussed along with proper nutrition and timing of meals to optimize performance and avoid injury. In addition, supplementation, the effects of performance-enhancing drugs and the negative impact of vaping were addressed. Presenters included Drs. Paul Sethi, Marc Kowalsky, Demetris Delos, Tim Greene and athletic trainer, Pete Falla.

Race to Stop the Opioid Epidemic...

On Sunday, September 16th, **ONSF** held its 6TH Annual 5K Run/Walk & Expo – **RACE TO STOP THE OPIOID EPIDEMIC**. Runners, joggers, families with strollers and many children gathered at the Eastern Greenwich Civic Center, 90 Harding Road, Old Greenwich, CT for the 9:00 AM start. It was a beautiful day on the 5K course that proved to be challenging for the experienced runner and equally enjoyable for beginners.



Tripp Lake Camp, Patriot Bank, Lile and John Gibbons, Camp Takajo, Greentree Toyota Danbury and other generous supporters.

Race participants were encouraged to bring their unused/expired prescription and over-the-

counter medications to deposit in the drop-off box donated and supervised by the Greenwich Police Department.

Proceeds from the 6th Annual ONSF 5K will directly benefit the ONSF current research project **UNRAVELING THE OPIOID EPIDEMIC IN POST-SURGICAL PATIENTS**.

Utilizing its nationally recognized skills, ONSF works diligently to unravel some of this country's opioid epidemic with specific emphasis on reducing and eventually eliminating the use of narcotics postoperatively. The Institutional Review Board at Greenwich Hospital has vetted and approved this study.



Prior to the race, athletes participated in a Warm-up Session under the direction of ONS PT Alexandra Ranieri. A Kids

0.5 Fun-Run warm up was supervised by Elite Health Services. All participants enjoyed the music by DJ Anthony Radice and the wonderful food and beverage selections compliments of Aux Delice. Among the Race Sponsors were Serendipity, Greenwich Hospital, CHASE, Granoff Architects, Houlihan Lawrence, Vineyard Vines,



Message from an ONSF Intern...



Nik Mandava
ONSF Research Intern

After graduating from Cornell University, I started my research position at ONSF. The only direction Dr. Paul Sethi gave me about what to expect was a start date and a word of advice: "Be ready!"

From day one, I immediately began working on a variety of different research projects – recruiting

patients for pain management studies, conducting literature review on prospective projects, and even creating clavicle repair models in the lab to test the strength of

different plate configurations. Meanwhile, I shadowed Dr. Sethi in the office and the OR and was involved every step of the way. I'm glad I was ready.

All of this has given me the experience I was searching for in my gap year. It has done more than given me publications to put on a resume; it has fostered a deep understanding of each project from start to finish. In addition, I gained valuable insight into the day-to-day life of a physician as I witnessed daily the interaction between doctors and patients.

Reflecting on the experience thus far, it's clear I've supplemented my predominately academic education with real-world experience. It has not only enhanced my love for medicine but also it has given me the professional skills needed for succeeding in medical school and eventually as a physician.

Big Problems with the Big Toe by Mark Yakavonis, MD

Big problem with your big toe? It may be HALLUX RIGIDUS (Arthritis of the Big Toe)

WHAT IS ARTHRITIS?

Arthritis is a disease of the cartilage or lining of your joints that enables fluid motion. When cartilage wears down, it can cause bone to rub against other bone, manifesting in pain.

WHY DOES IT HAPPEN IN THE BIG TOE?

Arthritis may be caused by an injury, medical condition, genetics, or physical abnormalities, and many causes are unknown. Arthritis of the big toe joint (or the Metatarsophalangeal/MTP joint) is one of the most common locations in the foot to develop arthritis.

HOW DO I KNOW IF I HAVE HALLUX RIGIDUS (ARTHRITIS OF THE BIG TOE)?

When arthritis develops, the body responds by growing more bone to prevent the painful motion. This leads to the sometimes earliest manifestation being a prominent bony bump on top of the big toe base. As the process progresses the range of motion of the toe becomes significantly reduced and more painful. The characteristic finding of rigid or significantly decreased motion is the reason arthritis of the big toe (or Hallux) is known as Hallux “Rigidus” in the medical world.

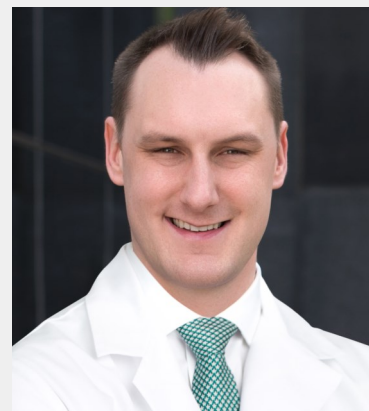
WHAT ARE THE INITIAL STEPS FOR TREATMENT?

Fortunately, while arthritis of the big toe is a common problem, there are many treatment options depending on the severity of the disease. For mild cases, a simple solution like choosing shoes that have a stiffer sole with a rocker bottom, or wearing special orthotics designed to prevent motion will help reduce pain. Unless medically contraindicated, anti-inflammatory medications may help eliminate swelling and pain associated with motion. In more advanced cases your doctor may recommend a cortisone injection to your big toe.

ARE THERE ANY SURGICAL OPTIONS?

While a majority of patients will see significant relief with non-operative treatment, there are surgical

options depending on the severity of disease. Early in the disease process, a procedure to remove the bony bump from the top of the big toe may be performed. This procedure, called a cheilectomy, can see great success in early disease, but as the arthritis progresses its efficacy can be limited.



Mark Yakavonis, MD

The “gold standard” surgical treatment for severe arthritis is a fusion, which grows bone across the big toe joint to prevent the painful motion. The procedure provides great pain relief, but it comes at the expense of sacrificing the remaining motion in the big toe joint. For many patients – especially those with advanced arthritis and extremely limited motion - a fusion is a great option that yields a dependable outcome and will last a lifetime.

A newer option for treatment is the CARTIVA implant, which was approved by the FDA in 2016 but has been used in Europe and Canada since the early 2000s. It is a polyvinyl alcohol implant that is similar in composition to a contact lens. It is designed to act as a buffer within the joint that prevents bone from rubbing against bone. To this point, it has been shown to provide good pain relief, with the advantage of preserving motion at the big toe joint. CARTIVA implants are best used for patients who still have some range of motion despite advanced arthritis.

HOW DO I KNOW WHICH OPTIONS ARE BEST FOR ME?

If you are experiencing any of the typical symptoms associated with this condition, I recommend a consultation with an orthopaedic foot and ankle specialist to help tailor treatment specific to your lifestyle and get you back to the activities you enjoy.

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