

ONSF 11th Annual Medical Education Conference

Over 140 physicians, nurses, physician assistants, physical and occupational therapists, athletic trainers and coaches attended the 11th Annual ONSF Medical Education Conference held at Noble Auditorium, Greenwich Hospital on Saturday, November 2nd. This year's fully accredited one-day course, "Current Concepts in Orthopaedic Surgery, Sports Medicine and Neurosurgery," reviewed the indications and outcomes in lower/upper extremity surgery and spine surgery. Also reviewed were; ACL repair, partial knee replacement, cervical disc replacement and new options in the treatment of Dupuytren's disease of the hand. In addition, attention focused on the growing opioid epidemic and strategies to prevent opioid addiction in patient populations.



Travis Rieder, PhD, delivers Keynote presentation to a full house

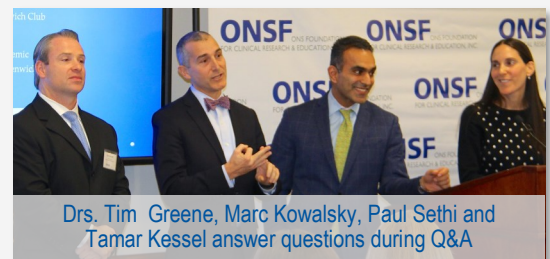
Bioethicist's Personal Struggle with Opioids, recounts his terrifying experience with opioid dependence that began with a motorcycle accident. Rieder endured half a dozen surgeries during which opioids were prescribed to him. His most profound suffering came several months later when he went into acute opioid withdrawal. Medical professionals in attendance at the Conference followed Dr. Rieder's story closely and participated wholeheartedly in a Q & A and book signing after his talk.

The Medical Education Conference, underwritten by an anonymous ONSF donor, is free of charge to all medical professionals who will receive continuing education credits certified by Greenwich Hospital. Additionally included were vendor exhibits, breakfast and lunch.



Drs. Tamar Kessel, Mark Vitale, Conference Co-Chairs
Travis Rieder, PhD, Keynote Presenter,
Vicki Leeds Tananbaum, VP ONSF and
Paul Sethi, MD, President ONSF

ONSF proudly welcomed Travis Rieder, PhD, a bioethicist, philosopher, and leading voice on the ethical and policy implications of America's opioid crisis. A research scholar and director of the Master of Bioethics degree program at the Johns Hopkins Berman Institute of Bioethics, he has published on a wide variety of topics in various academic journals. His memoir, *In Pain: A*



Drs. Tim Greene, Marc Kowalsky, Paul Sethi and
Tamar Kessel answer questions during Q&A

Arrangements for the appearance of Travis Rieder made
through Harper Collins Speaker's Bureau.

FEATURED ARTICLES -

4 *Stay on the Slopes and
Out of the Clinic*

6 *Community Outreach*

7 *Degenerative Neck Conditions —
What's New — Heeren Makanji, MD*

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Message from the President ...

Greetings and Happy Holidays to All,

ONSF has been very productive this past year. We made the promise to deliver responsible guidelines for prescribing opioid medications. This mission engaged the whole ONS and ONSF team and changed how we set expectations, how better to use non-opioid medications, and how to limit the amount of medications prescribed! Our opiate minimization strategies have been presented at The American Shoulder and Elbow Society, The International Congress for Joint Replacement and The Mid-Atlantic Shoulder and Elbow Society. In addition, the strategies were published in the *Journal of Shoulder and Elbow Surgery*.

We extended our strategies to include the knee and found that most basic knee arthroscopy does not require opiate medication. This newer data will be presented at the American Academy of Orthopedic Surgery in March 2020 and will also be published in the *Journal of Arthroscopy, Sports Medicine and Rehabilitation* this coming year.

The ONSF 5K Run/Walk further raised awareness about opiate medication. Our partners from the Greenwich Police Department collected unused pills and removed the risk of medication diversion for these pills! Opiate research was capped at the ONSF Medical Education Conference. Once again, the room was packed, and the course sold out weeks in advance. Notably thrilled with our work was Travis Reider, PhD Bioethicist from Johns Hopkins, who shared his harrowing experience with opiate medication.

It seems like this should be enough. And maybe it is...but much more is happening. Drs. Demetris Delos and Marc Kowalsky led two amazing ACL reconstruction courses for athletic trainers and physical therapists. This is a great way to share information about surgery, rehabilitation and the latest advances in enhancing patient recovery.

This issue features more articles and events, so please continue reading.

Thank you for your continued, generous support!



Paul M. Sethi, MD

Save the Date. . .

12th Annual ONSF Golf Outing - The Stanwich Club, Monday, June 8, 2020

Race to Stop the Opioid Epidemic — 8th Annual ONSF 5K RUN/WALK & EXPO
Sunday, Oct. 4, 2020— Eastern Greenwich Civic

12th Annual ONSF Medical Education Conference — Saturday, Nov. 14, 2020
Greenwich Hospital, Noble Auditorium

Clinical Education Series ...

On October 15th and 22nd **ONSF** offered, as part of its Clinical Education Series, a course entitled: *ACL Injuries in Athletes: From Sideline Management to Postoperative Recovery and Rehabilitation*. A total of 28 physical therapists and athletic trainers attended the program.

The course shared current advances in ACL reconstruction and how to achieve a better understanding of the recognition and diagnosis of the problem. Instruction included sideline diagnosis and management, immediate treatment, pre-surgical principles, surgical considerations, and postoperative management—rehabilitation/return to play.

Following a formal didactic session was an open forum where the latest research in ACL surgery was discussed including choice of graft for reconstruction. After the discussions, participants moved to the **ONSF** Research Lab for surgical demonstrations on cadavers. Attendees also had individual opportunities to attempt knee arthroscopy



using equipment in the Lab on a non-cadaveric surgical simulator. An additional open forum reviewed the current state of the art for rehabilitation after operative and nonoperative management of ACL injuries.

The goal of this comprehensive course was to guide these professionals toward developing ideal methods for treating

individuals with ACL injuries in order to optimize clinical outcomes.

Faculty included: Program Chair Demetris Delos, MD, Mark Kowalsky, MD and Paul Sethi, MD. **ONSF** is accredited by the Connecticut and New York Physical Therapy Associations and the Board of Certification for the Athletic Trainer. All students attended at no cost and received CEUs for the course.

Feedback from attendees included: "Amazing experience," "One of the best courses I've been to...loved how hands-on everything was."

Mini-Med School—a First Step...



From June 24th thru June 27th, **ONSF** held its 6th Annual Mini Med School. The **ONSF** Arthroscopy, Surgical Skills, Biomechanical Research Lab provided an ideal mentor/student atmosphere

for the 12 high school students who attended. Each enthusiastically embraced the opportunity to participate in a "hands-on" experience, a one-week workshop in orthopedics. Representing Greenwich Academy, Sacred Heart of Greenwich, Rye Country Day, King School, The Harvey School, St. Luke's School, Mamaroneck High School, Rye Neck High School, North Salem High School, Greenwich High School, Hopkins School and Deerfield Academy, the students expressed an interest in careers in medicine or were enrolled in STEM programs.

Physicians led daily discussions in injury prevention, surgical and non-surgical treatments, physical examination and diagnosis. Broken arm? No problem for



these students who spent two sessions in a casting workshop. From wearing surgical scrubs to learning arthroscopic surgery procedures, students became familiar with the operating room environment with demonstrations by Rey Delacruz, OR Nurse and Greenwich Hospital Education Specialist.

Other activities included learning the fine points of fluoroscopy and performing shoulder arthroscopy on "Alex" models. Orthopedic surgeons including Drs. Delos, Vitale, Yakavonis, Kowalsky and Wei helped students observe the injury and tissues and make necessary repairs. The week included an ultrasound workshop with Dr. Levchenko, review of X-ray and MRI with Dr. Mao, an introduction to physical therapy and one-on-one time with **ONSF** research interns.

All students reviewed the course. The words "awesome, amazing, exceptional" were frequently used to describe the overall experience.



Stay on the Slopes and Out of the Clinic ...

Despite the advancements in equipment technology and proper techniques, skiers continuously face a high risk of injury. In order to prevent common injuries, we recommend a simple exercise program consisting of the 5 exercises below that will help with balance and strength to keep you on the slopes and out of the clinic this ski season.

1. Quadruped Spinal Rotation

What it will do: Increase mobility, flexibility, and motor control of the neck, shoulders, and spine

How to do it: Start on your forearms and knees. Place one hand on the back of the head. Rotate slowly so that your chest opens towards the leading elbow side. 3 sets for 25 seconds each



2. Plank Progression

What it will do: Increase strength, stability, and motor control of the wrists, elbows, and shoulders and fortify core, shoulders, and arms against potential falls

How to do it: Start in a high plank with arms extended. Begin with 1 shoulder taps for two minutes



3. Single-Leg Deadlift (Romanian dead lift)

What it will do: Increase strength and balance of the hamstrings and gluteal muscles

How to do it: Start standing on one leg. Extend the arm in line with the balanced leg. Bend at the hips, until torso, arm, and balanced leg are in a straight line. 2 sets of 10 reps on each leg

Modification: place your balanced leg on a chair for added support

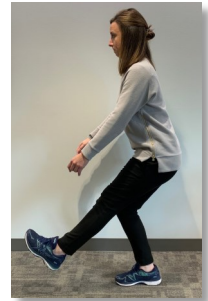
Challenge: rotate your torso away from the standing leg



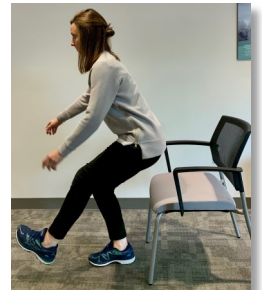
4. Single-Leg Squats

What it will do: Increase strength and control of quadriceps and gluteal muscles

How to do it: Stand with feet planted directly in line with shoulders. Lift one leg straight in front of your body while you squat with the other leg. 20 reps on each leg. Make sure that your squatting knee does not buckle inwards. 20 times on each leg



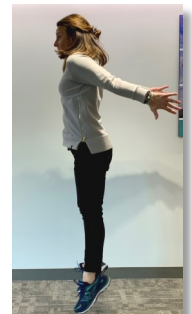
Modification: lower your body up and down off of a chair, instead of into a squat



5. Squat Jumps

What it will do: Improve landing control

How to do it: Start in a squat. Jump up and land in a squat. 3 sets with 10 reps



Challenge:

Try starting on a heightened surface (bench/step) and/or try landing on an uneven surface (Bosu ball/outdoor terrain)

Racing to Stop the Opioid Epidemic ...

On Sunday, September 8th, ONSF held its 7TH Annual 5K Run/Walk & Expo – RACE TO STOP THE OPIOID EPIDEMIC. The weather was perfect as 200 runners and walkers of all ages and levels gathered at the Eastern Greenwich Civic Center in Old Greenwich for the 9:00 AM start.

DJ Anthony Radice provided the music and Aux Delices the food and beverages. Race Sponsors included Serendipity, Greenwich Hospital, CHASE, Granoff Architects, Houlihan Lawrence, Vineyard Vines, John and Lile Gibbons, Greentree Toyota Danbury and others. Race participants brought unused/expired prescription and over-the-counter medications to deposit in the drop-off box which the Greenwich Police Department donated and supervised.

Special thanks to student volunteers from Greenwich High and the Boys & Girls Club for manning the aid stations, handing out medals, setting up the food and assisting with clean up.

Proceeds from the 5K will directly benefit ONSF's current research project *Unraveling the Opioid Epidemic in Post-surgical Patients* 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.



Golf Anyone ...

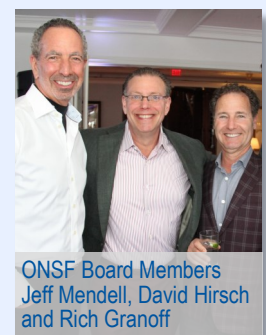


On Monday, June 10th, ONSF, in conjunction with Greenwich Hospital, held its 11th Annual Golf Outing at the outstanding Stanwich Club in Greenwich, CT. Despite slightly inclement weather, golfers enjoyed lunch on the terrace followed by a round of golf. In the evening, non-golfing friends and other supporters joined golfers for cocktails, auctions and a dinner reception. DJ Anthony Radice served as MC and The New Regulars band performed to the delight of guests.

Within the realm of our 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. Utilizing its research skills, ONSF continues a major initiative, 'Unraveling the Opioid Epidemic in Post-Surgical Patients' and will work diligently to resolve this significant problem that affects a very sizable group of the population.

Michael Clain, MD, Adam Ercoli, Rich Granoff and Vicki Leeds Tananbaum chaired the event, assisted by Golf Captain Chair, Jeff Mendell and Auction Chair, Amy Sethi. A dedicated Auction committee and generous supporters made it possible for ONSF to offer sensational auction items!

Major sponsors included Constitution Surgery Centers, POINT 72, Greenwich Hospital, Serendipity, Susan and Robert Klein, Greentree Toyota Danbury, Horseneck Wine and Spirits, Cynthia and Richard Koppelman, Miller Motorcars, Watson's Catering and many other generous businesses and individuals. The Outing raised over \$250,000.



ONSF Board Members
Jeff Mendell, David Hirsch
and Rich Granoff

Community Outreach ...

There are many positive aspects to playing youth football. Included are the mental and physical benefits through physical activity it provides and the life lessons it teaches. By playing this sport, student athletes learn football's timeless qualities of leadership, responsibility, perseverance and teamwork.

Physical benefits include strength, cardiovascular endurance, flexibility and the likelihood of continuing good health habits later in life. Boosting self-esteem, and problem-solving skills and lower levels of depression are a few of the psychological pluses.

However, it is important that student athletes understand best practices and how to avoid injury. In an effort to address these issues, ONSF presented Community Outreach Injury Prevention programs in the summer and fall of 2019 to area high school football teams which included Greenwich and New Canaan High Schools.

More than 100 players attended each of the talks aimed at informing the athletes about the importance of good nutrition/in-season diet,

The goal of ONSF's Community Outreach effort is to disseminate vital information about injury prevention, fitness and innovative treatment options for musculoskeletal conditions and injuries. Via seminars open to the public at no charge, these programs encourage people of all ages to live healthy, active lives.

On September 11th, the **ONSF ThinkFirst Foundation** presented **ThinkFirst! For Youth & Teens—Use Your Mind to Protect Your Body** to over 200 members of the Boys & Girls Club of Greenwich.

Scott Simon, MD, MPH, a neurosurgeon and director of the ThinkFirst ONSF program delivered the talk. Dr. Simon specializes in the



treatment of spinal disorders including operative and non-operative treatment of scoliosis and regularly treats patients with concussions from sports injuries and other causes.

The program focused on keeping students injury-free by emphasizing skills to withstand peer pressure, develop decision-making abilities and build a confident self-image. Discussions included vehicle safety — the importance of wearing your seatbelt and the danger of texting while driving; bicycle safety —



adequate hydration including how often and when to hydrate, the impact of performance-enhancing drugs and negative effects of vaping.

Drs. Paul Sethi, Marc Kowalsky and Tim Greene delivered presentations.

the importance of wearing a helmet; sports and recreational safety and violence prevention.

The many questions asked and the lively exchange of ideas demonstrated that the information presented was well received by the audience.

The Boys & Girls Club expressed their appreciation with the following statement: "Thank you to ONSF for running an injury prevention seminar for our members. . . community partnerships with organizations such as ONSF are part of the many ways we help provide safety education for our members."

To learn more about the ONSF ThinkFirst Foundation and view a ThinkFirst presentation please visit www.onsf.org/prevention/thinkfirst.

Degenerative Neck Conditions—What's New

by Heeren Makanji, MD



Heeren Makanji, MD

What Does Neck Degeneration Mean?

Neck degeneration is a complex process that occurs in the cervical spine involving the intervertebral disc, vertebral bodies, and the joints in the back of the neck. On a more basic level, it can be described as “wear and tear” in your neck. Typically, the process

starts with loss of water and protein content in the disc, which then leads to a combination of loss of disc height, disc bulging, formation of bone spurs and loss of cartilage in the facet joints in the back of your neck. While environmental factors, such as occupation or history of playing contact sports, play a role in the degenerative process, newer research is now showing that your genetics may be the most significant predictor.

What Kinds of Symptoms May I Experience?

Most neck pain is typically caused by injury and inflammation in the very sensitive muscles that lie on either side of the back of your cervical spine. These muscles typically have insertions on the bottom of the skull and shoulder area, which is why a lot of neck muscular issues present with headaches and/or shoulder pain. When you develop degeneration of the cervical spine, you may begin to develop pain with movement of the neck, stiffness, and loss of motion, especially when moving the head side to side. When the degenerative cascade and its structural changes, such as formation of bone spurs, begin to pinch the spinal nerve roots or spinal cord, neurological symptoms can develop. Cervical radiculopathy (pinching of the individual nerve roots) can lead to radiating pain into the shoulder, arm, and/or fingers, numbness, tingling, and muscle weakness. Cervical myelopathy (pinching of the spinal cord) can lead to hand numbness, weakness, loss of dexterity, clumsiness, and issues with balance while walking.

What Treatment Options are Available?

Early neck degeneration is best treated with a combination of anti-inflammatories and physical therapy. Therapy works to loosen the spinal muscles, increase strength, and improve range of motion. Injections with cortisone can be useful to decrease inflammation in the muscles, facet joints, and even from pinched nerves. When conservative measures fail to provide relief, surgical intervention is typically recommended. Because of its

progressive nature, conservative measures play a minimal role in myelopathy, and surgery is the “gold standard.”

If I Need Surgery, Can I Avoid a Fusion?

Yes! Nerve root problems can sometimes be fixed by taking pressure off from the back of the neck by doing a procedure called a foraminotomy. Cervical disc replacements have been approved by the FDA for about 12 years, but they are gaining significant traction recently. In patients with minimal arthritis, it allows for removal of nerve root and spinal cord compression from the front of the neck while maintaining motion and avoiding the longer-term complications of fusion. Cervical laminoplasty is a non-fusion technique where the spinal canal is expanded from the back of the neck for patients with myelopathy. It has been popular in Japan for several decades, but is increasing in popularity in the United States. The decision to have surgery can be difficult to make, but surgical advances in the past decade have made cervical spine procedures safer and recovery faster than ever.



Model of the cervical spine showing a cervical disc replacement. Once compression is removed from the nerve roots and spinal cord, motion is maintained by placing a disc replacement implant.

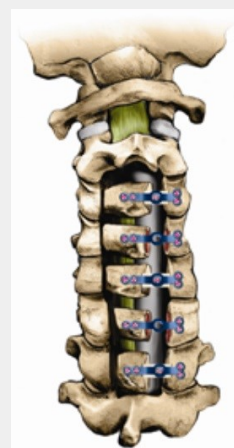


Diagram showing a cervical laminoplasty. In patients with myelopathy, the spinal canal is expanded by creating a trough in the bone and propping it open with the use of plates.

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