

TRIGGER FINGER (STENOSING TENOSYNOVITIS) *by Ayisha E. Livingstone, MD*

Trigger finger refers to a sensation when the finger or thumb feel stuck or temporarily snagged with efforts to “straighten” (extend or bend) the digits. In early stages there may be simply diminished range of motion, particularly lack of full flexion of the finger or thumb.

Trigger fingers cause a thickening of the tendon and are sometimes accompanied by inflammation that narrows the tunnel where the tendon glides back and forth to allow movement of the fingers. The tendon itself may develop a knot and cause an irritation from rubbing the narrow tunnel walls of the sheath. With initial attempt at finger motion the tendon tries to move the finger, but encounters resistance

to movement as the swollen part of the tendon tries to move through the narrow part of the tunnel. With further attempts at digit motion, the tendon nodule pulls through the short tunnel and a snapping sensation accompanied by pain may then be felt. This cycle of damage can result in the finger or thumb becoming stuck or locked with movement becoming increasingly painful and difficult. The cause of most cases of trigger finger is unknown. In some cases the condition is associated with repetitive grip activity. It may also be associated with diseases such as rheumatoid arthritis, gout, diabetes, and kidney failure.

Studies indicate that trigger finger

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(About the Contributor)

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A child of a military family, Dr. Livingstone was raised all over the United States and Europe. At the age of 18 she moved to Tampa, Florida to obtain her Bachelor's degree at the University of Tampa. In 2003 she received her M.D. degree at the University of Miami. After completing both her internship and residency in the University of Miami's Orthopedic Program, she spent a year at the University of Pittsburgh for a dedicated Fellowship in the hand and upper extremity. Under the guidance of dedicated and nationally well-known orthopedic surgeons in Miami and Pittsburgh, Dr Livingstone received a comprehensive education in all areas of orthopedic injuries.

HANDY TIP

Creative Ideas in Orthotic Fabrication

Debby Schwartz, OTD, OTR/L, CHT

Product and Educational Specialist, Orfit Industries America

Many hand therapists are very creative creatures, always looking for new and innovative treatment ideas and for inexpensive components for orthotic fabrication.

As an instructor of splinting (orthotic) workshops, I frequently hear of good splinting tips to pass along and I sometimes come up with a creative idea myself. One tip that I am happy to share is the use of dental floss for static progressive orthoses. Dental floss is particularly well suited for putting

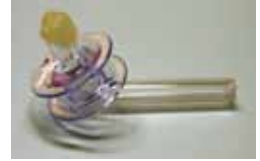


tension on stiff joints as it is strong and does not fray easily. It is readily available and even comes in different

widths. It can be used for finger static progressive orthoses and even for larger elbow orthoses! And dental floss is fairly easy to thread through holes in finger slings and through pulleys or the line guides directing the correct angle of pull.

My contribution to static progressive splinting is the creative use

of a sewing machine bobbin to wind up the extra string (or dental floss). The plastic bobbin is placed over a small 2-3 inch Orfitube plastic tube (Orfit Industries America). A small scrap of splinting material that has been dry heated keeps it from slipping off the tube and another scrap wrapped around the tube attaches it to the orthotic.



Remember to always use dry heat (heat gun) to make thermoplastic material sticky and always use hot water to mold it. The string or dental floss pulls the affected joint into the maximum tolerable end range position and the excess string is wound around this bobbin. The end of the string is attached to Velcro loop which is anchored to Velcro hook on the orthosis. The patient can easily adjust the tension with the string wrapped around the bobbin. ■

Debby Schwartz is the Product and Educational Specialist for Orfit Industries America and regularly conducts beginner, intermediate and advanced splinting workshops. You can contact her at Debby.schwartz@orfit.com with any questions.

CASE AT HAND: From the Hand Therapist's Perspective Management of Trigger Finger

Chris W. Smethie, OTR/L, CHT

As hand therapists we are frequently referred patients with a recent onset of trigger finger. Conservative management most often consists of fabrication of a splint and instruction in exercises that are specific for the diagnosis. Hand usage and work ergonomics may also be addressed. Individuals are educated to avoid repetitive gripping and sustained grasping. Additional treatment to help reduce inflammation may consist of modalities such as ultrasound, heat, cold, or iontophoresis.

If the symptoms do not completely respond to conservative management, a steroid injection and/or surgery may be the next approach. Therapy may continue after the steroid injection.

When surgical release of the

pulley becomes necessary, the patient is generally seen by the hand therapist around 7-10 days postoperatively. Wound care management, edema control techniques and exercises to increase motion and eventually improve functional use of the hand are the focus of treatment. Once the wound is completely healed, scar management measures are added to the treatment program. Finally, light non-repetitive hand strengthening exercises/activities may be part of treatment prior to discharge to a home program.

The hand therapist is an important member of the hand management team, and when working closely with the hand surgeon, the treatment outcome can only be enhanced. ■

TRIGGER FINGER

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may be related to certain occupational risk factors, including highly repetitive hand activity especially with grip, vibration and combination of excessive manual force, repetition and awkward or restrictive hand posture. Trigger finger or thumb is a relatively common condition. It has a higher incidence, 75% in women, than in men; most cases occurring in individuals between 52 and 60 years of age. It often occurs in both hands.

TREATMENTS: The individual may need to wear a splint on the affected fingers for up to six weeks. Anti-inflammatory medication to reduce swelling may also be prescribed. Treatment plans, including corticosteroid injections into the tendon sheath, are reported to be 65% to 93% successful. However individuals with diabetes do not respond as well to cortisone injections and only have a 50% success rate. If nonoperative treatment fails, surgery may be required to open the tunnel area and allow freer movement of the tendon. Occupational therapy may be recommended following surgery to restore normal hand movement.

PROGNOSIS: Prognosis usually is very good. Some individuals recover spontaneously, most require a corticosteroid injection with or without associated splinting. Some individuals

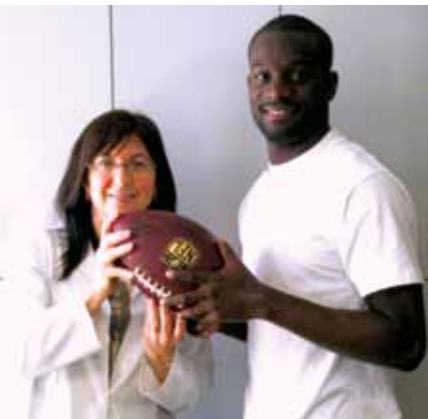
may require up to three injections, but approximately 90% of the cases are resolved satisfactorily. Surgery usually has a very good outcome, although recovery may take several weeks. Most surgeons will offer up to 2 or 3 injections before strongly recommending surgical intervention. ■

Injection versus surgery in the treatment of trigger finger

Benson LS. Ptaszek AJ. Journal of Hand Surgery - American Volume. 22(1):138-44, 1997 Jan. One hundred nine trigger fingers in 102 patients were reviewed with respect to management plan and response to treatment. Thirty-four digits eventually underwent surgical release of the A1 pulley, while the other 75 digits were treated with local steroid injection only. All patients were evaluated with respect to clinical resolution of symptoms, dollar cost of treatment, and general satisfaction as measured with a post-treatment questionnaire. These data suggest that surgical management may be the next best option in patients with trigger finger who continue to be symptomatic after a single injection. Although surgical release of the A1 pulley cost our Medicare patients \$250.00 more than a second injection, this additional cost may be offset by the benefit conferred through permanency of relief. Subjective data from the patient questionnaire responses also support surgery as a reasonable choice after one injection failure. The information from this study better delineates differences between injection and surgery as treatment choices and may aid the patient and physician in choosing an individually optimal care plan.



OUT OF HAND STAFF NOTES



*Looks like **Martha Handler, OTD, OTR/L, CHT** is the one in training during a recent therapy session with her patient **Chandler Williams** from the **Kansas City Chiefs**.*

Robin E. Miller, OTR/L, CHT, Fort Lauderdale Hand Clinic, Owner and Clinical Director, was proud to be one of the moderators at two sessions of the 37th Annual Philadelphia Hand Rehabilitation Foundation's Surgery and Rehabilitation of the Hand Symposium held March 5-8, 2011. One session presented the fabrication and indications for a static progressive elbow flexion orthosis made with DeltaCast[®] an economical alternative to thermoplastic materials and the other session covered a variety of topics related to therapy practice from negotiating contracts to cracking the billing codes.

ADVOCACY/MANAGED CARE

Lesley R. Sankin, Communications Director

Red Flag Rules

A new law clarifying who is subject to the Red Flags Rule and exempting health care professionals from the identity theft regulations enacted by the Federal Trade Commission was passed. On December 18, 2010, President Obama signed into law the "Red Flag Program Clarification Act of 2010," which clarifies the type of "creditor" that must comply with the Red Flags Rule. The Congressional Record further reflects the bipartisan intent of the bill's sponsors that physicians, lawyers, dentists, and other healthcare professionals should no longer be classified as "creditors" for the purposes of the Red Flags Rule because they do not receive payment in full at the time that they provide their services.

PECOS Ordering Referring Report

At this time the Centers for Medicare and Medicaid Services (CMS) has not turned on the automated edits that would deny claims for services that were ordered or referred by a physician or other eligible professional simply for lack of an approved file in PECOS.

Multiple Procedure Payment Reduction (MPPR) for Selected Therapy Services

Medicare is applying a new multiple procedure payment

reduction (MPPR) to the practice expense (PE) payment of select therapy services (multiple codes that are frequently billed in conjunction with furnishing a single service and paid under the physician fee schedule, thereby reducing the allowable). Many occupational therapy services are reimbursed under the Medicare Physician Fee Schedule (MPFS) and will be directly and detrimentally impacted by the MPPR policy for outpatient therapy, according to the American Occupational Therapy Association, Inc. (AOTA), particularly due to CMS's failure to distinguish between the separate and distinct therapy professions. The AOTA is strongly opposed to the MPPR for outpatient therapy as it is currently written.

Therapy Exceptions Process

On December 15, 2010, President Obama signed Senate Amendment to HR 4994, the Medicare and Medicaid Extenders Act of 2010.

The exceptions process to the Medicare therapy cap is extended until December 31, 2011, which allows Medicare beneficiaries to receive medically necessary occupational therapy services beyond the \$1,870 cap. The exceptions process extension allows clinicians to use their judgment to determine the amount and frequency of therapy services for their clients.

IN GOOD HANDS

Hand therapy can be an important bridge between serious hand injuries (such as tendon lacerations and fractures of the hand, wrist or fingers) and good outcomes, especially when the patient participates in a structured therapy program and practices at-home exercises taught by a qualified hand therapist. As quoted in Medical News Today, August 4, 2010, Dr. Dorf, who co-authored the recent literary review (Dorf, E., Blue, C., Smith, B. & Koman, L., Therapy After Injury to the Hand, Journal of the American Academy of Orthopaedic Surgeons 2010 Vol 18, No 8, 464-473) said, "Hand therapy is the critical link between certain surgeries of the hand and a good outcome.... collaboration and cooperation between the patient, the therapist and the orthopaedic surgeon, is critical."

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AMERICAN OCCUPATIONAL THERAPY ASSOCIATION (AOTA)

The AOTA will be holding its 91st Annual Conference & Expo in Philadelphia, Pennsylvania on April 14-16, 2011.

FLORIDA HAND SOCIETY

The next annual meeting of the Florida Hand Society will be held in Orlando on May 13 and 14, 2011 at the Marriott Orlando Airport Hotel. Our newly appointed Program Chair is Cynthia Harding, MD, and she will be responsible for putting together the academic program for 2011 and 2012. She can be reached at hands@simedpl.com. Anyone wishing to present or attend may contact either Dr. Harding for presentations or the FHS administrative office for membership/attendance information. Remember to "Save the Date" for this educational and fun meeting.

AMERICAN SOCIETY FOR SURGERY OF THE HAND (ASSH)

The ASSH will hold its 66th Annual Meeting on September 8-10, 2011 in Las Vegas, Nevada at the Mandalay Bay Convention Center.

AMERICAN SOCIETY OF HAND THERAPISTS (ASHT)

The ASHT will be holding its 34th Annual Meeting at the Gaylord Opryland in Nashville, Tennessee on September 22-25, 2011.

AMERICAN ASSOCIATION FOR HAND SURGERY (AAHS)

The AAHS will hold its 2012 Annual Scientific Meeting on January 11-14, 2012 at the Red Rock Casino Resort & Spa in Las Vegas, Nevada.



UPCOMING GRANT AND FELLOWSHIP DEADLINES

THE AMERICAN HAND THERAPY FOUNDATION GRANTS:

AHTF grant submissions are now due on February 28 of the calendar year awarded. Applications for any of the AHTF grants can be accessed at <http://www.ahtfgrants.com>. If you miss the deadline, revisit for updated submission requirements for the 2012 funding cycle.

BURKHALTER YOUNG INVESTIGATOR GRANT FOR CLINICAL RESEARCH IN HAND AND UPPER LIMB REHABILITATION

The AHTF BURKHALTER NEW INVESTIGATOR GRANT was established in honor of Dr. William Burkhalter (1928-1992), a long time advocate and promoter of hand therapy. AHTF established the grant in 1993 for any hand therapist in order to provide seed grants to therapists conducting scientific clinical research related to hand and upper extremity rehabilitation. Because of the generous unrestricted contributions received by the Foundation in 1996, the Burkhalter Grant was increased to \$4,000 from the initial amount of \$1,000.

THE EVELYN MACKIN GRANT FOR EDUCATION BY A TRAVELING HAND THERAPIST

The grant is designed to facilitate travel for a visiting therapist to a clinical setting(s) in anticipation of observing and learning what Ms. Mackin referred to as "pearls", techniques or concepts of care that would not be routine in traditional practice. Recipient must be a current member of the American Society of Hand Therapists or a Certified Hand Therapist actively practicing hand therapy and with the freedom to travel for a minimum of five business days. Recipient may not be concurrently applying for any other AHFT grant, nor be the recipient of an AHTF grant in the past five years.

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THE AMERICAN HAND THERAPY FOUNDATION “GRAB THE EVIDENCE” GRANT FOR BASIC RESEARCH SCIENCE AND EVIDENCED BASED STUDIES

The purpose and design of this award, which is dependent on available funding, is to serve as a catalyst for a skilled researcher and/or research team to develop their role as principal investigators and to obtain seed money for procurement of larger external funding. Hand fellowship students may apply when supported by a faculty member in an occupational or physical therapy program.

HANDS UP NEWS

A Systematic Review of Design and Effects of Splints and Exercise Programs in Hand Osteoarthritis, Ingrid Kjekouk, Ph.D. and colleagues, Arthritis Care and Research Journal, January 10, 2011

According to a new review of the medical literature, hand splints may ease the pain of degenerative osteoarthritis. The researchers identified 12 studies with a total of nearly 500 patients, each testing the effects of hand splints, exercises or a combination of the two. Short and rigid day splints cut hand pain in half after six months of use, according to one study. Another study found hand pain was halved for patients who wore a long and rigid splint every night for one year. One month of night use lessened pain by a quarter. It is not clear just how splints reduce pain, although it is possible they act by providing support to inflamed joints or by slowing the development of deformities.

On the other hand, the findings suggested that splints did not seem to improve hand function or strength and the data was not good enough to enable the researchers to estimate how well exercise might decrease pain or increase function.



By a show of hands, we have to hand it to the staff of the Fort Lauderdale Hand Clinic and its Owner and Clinical Director, Robin E. Miller, for being old hands at professional and skilled certified hand therapy for 30 years. Hand over fist, we know upper extremity rehabilitation like the back of our hands contradicting the saying “the left hand doesn’t know what the right hand is doing” each and every day.

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Therapists at the Fort Lauderdale Hand Clinic are certified by the Hand Therapy Certification Commission (HTCC).

Established in 1981, by Robin E. Miller, OTR/L, CHT, the Fort Lauderdale Hand Clinic is therapist-owned and specializes in upper extremity custom orthotics and rehabilitation.