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Editorial

Endorsement of hand meetings by the IFSSH

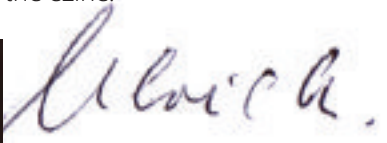
The International Federation of Societies for Surgery of the Hand (IFSSH) often receives requests to sponsor or endorse hand surgery meetings.

The primary aim of the IFSSH, as stated in its Charter, is to promote the "well-being of the Hand" in various ways. We have seen a proliferation of many aspects of the Hand being presented at numerous meetings, symposia and congresses, including aesthetics, macro and micro surgery, rehabilitation, trauma management, sport injuries, transplantation, prosthetics, congenital dysplasias, etc. Such activities signify the exciting developments of our specialty. However, it is the duty of the IFSSH as the umbrella organisation, to ensure, and if necessary, give guidance, that these activities are reasonable, scientific, credible, and not driven by a purely profit or a promotional motive.

The IFSSH welcomes the requests by organisers of meetings to announce their events on the IFSSH website and/or IFSSH ezine, and will gladly do so to allow all those interested to participate. However it should be clear that the IFSSH can only do so if it has adequate information about these meetings before giving official approval.

The IFSSH cannot be held responsible or be held accountable for any promotional material, advertisement, statement, or suggestion by any presenter, organisation or advertisement, either written or verbal. Endorsing or supporting a meeting by the IFSSH does not mean that the views expressed are the official views of the IFSSH. The IFSSH has some 30 Scientific Committees who on occasion will produce official reports. The IFSSH cannot endorse a private meeting which is run as a business for financial gain.

The Executive of the IFSSH evaluates all requests for endorsements of meetings. The required information should include the aim, programme, faculty, budget, target audience, sponsors and a one page promotional advertisement fit for publication in the ezine.



Ulrich Mennen
President: IFSSH
Editor: IFSSHezine

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IFSSH Secretary General's update

Dear Delegates,

As discussed in Las Vegas, the 2012 Delegates' Council Meeting will be held in Antwerp, Belgium, in conjunction with the annual FESSH Congress (www.fessh2012.org).

The Delegates' Council Meeting will be held on Friday 22nd June, 10:15am-12:00pm. Further details will be sent in the near future, including the agenda and minutes of the 2011 meeting.

It would be appreciated if you or an appointed member from your society could join this annual meeting to discuss the progress and plans of the IFSSH. If your society wishes to appoint a proxy, please inform the secretariat (administration@ifssh.info) and they will be included in all future correspondence relating to the meeting.

We look forward to seeing you in Belgium.

Kind regards, **Zsolt Szabo**, Secretary-General, IFSSH

ASSH Founding Members

The initial meeting of the American Society for Surgery of the Hand, held at the Blackstone Hotel in Chicago in January 1946 was attended by 26 of the 35 designated founders.
A portion of that group is pictured above.

Left to right: *Darrel T. Shaw, Joseph H. Boyes, Lot D. Howard, S. Benjamin Fowler, Sterling Bunnell, Arthur Barsky, Donald D. Slocum, Walter C. Graham, J. William Littler, William Metcalf, Richard H. Mellen, Gilbert Hyroop, Donald R. Pratt, William F. Frackelton, Robert L. Payne, Jr.* ***Not pictured:*** *Harvey S. Allen, Hugh Auchincloss, Julian M. Brunner, Condict W. Cutler, Homer D. Dudley, Alfred W. Farmer, Gerald Gill, Edward Hamlin, Deryl Hart, Sumner L. Koch, William M. Krigsten, Clarence A. Luckey, Henry C. Marble, Michael L. Mason, Joseph I. McDonald, James T. Mills, George S. Phalen, William H. Requarth, Thomas W. Stevenson, George V. Webster*

Reaching new heights: hand surgery for sport

By **Loris Pegoli**

The International Society for Sport Traumatology of the Hand (ISSPORTH) is devoted to the treatment of conditions specifically regarding the hand and the wrist in athletes. It was founded in Italy in March 2011 by a group of hand surgeons and hand therapists from all over the world (from Europe, Australia, Africa, Asia, North and South America).

Membership is open to surgeons as well as hand therapists with an eye to athletic trainers and allied health professionals caring for the sportsman. The idea of founding a new scientific society addressing the treatment of wrist and hand conditions in athletes emerged from the frequent observation, worldwide, that meetings regarding hand surgery, sports, orthopaedics and traumatology often lacked presentations specifically regarding the subject of athletic injuries.

The main purpose according to the by-laws of our society are:

1. to promote the unrestricted and complete exchange of knowledge among the participating members of the Society
2. to exchange knowledge through publications and scientific meetings
3. to facilitate and expand the opportunities for study and research within and among the participating members and to promote cooperation between hand surgeons, orthopaedic surgeons, sports physicians, hand therapists and other hand specialists and other specialists and professional figures who have a major interest in the anatomy and function of the hand and wrist.

The Governance of the society is composed by an executive board formed by a President - Alejandro Badia (USA), Vice-President – Riccardo Luchetti (Italy), General Secretary - Loris Pegoli (Italy), Treasurer- Paolo Cortese (Italy). Furthermore there is a delegate representatives from each continent: Mike Hayton (Europe), Micheal Solomons (Africa), Steven Topper (North America), Eduardo Pereira (South America), Moroe Beppu (Asia) and Gregory Bain (Oceania), as well as an Hand Therapist Delgate Tracy Fairplay and an Olympic

Committee Delegate Mike Loosemore.

ISSPORTH is still in its infancy as a society, but very active and growing in new members from all over the world in a short period of time, as well as gaining interest from figures not strictly related to surgery or rehabilitation. Many medical sub-specialty societies are established each year. We, as

ISSPORTH and all its members, would like to be a reference point, in collaboration with IFSSH which we consider as our parent organisation. Our inaugural symposium was organised in Milan in March 2011 with a large number of participants thus demonstrating that there is a great interest in this fascinating subject. This on-going interest already has lead to the organisation of other meetings and symposiums that will be held in the near future (February 2012 in Miami, May 2012 in

Estonia and February 2013 in Japan). ISSPORTH has the goal of being a society open to anybody who would like contribute their specific knowledge concerning the global treatment of athletic wrist and hand injuries.

For more information please contact us:
E mail: info@issporth.org
Website: www.issporth.org

"Membership is open to surgeons as well as hand therapists with an eye to athletic trainers and allied health professionals caring for the sportsman"

IFSSH Committee on the musician's hand

The following Report is submitted under the auspices of the IFSSH Committee on the Musician's Hand

Chairman: Peter C. Amadio. Members: Ian Winspur, Naotaka Sakai and Massimo Ceruso

Musculoskeletal conditions affecting the musician

By **Ulrich Mennen**

Introduction

Since the dawn of mankind, music has been an integral part of human culture. Music has been used for various purposes, such as pleasure, entertainment, worship and communication.

Two important factors have influenced these purposes of music making. Firstly, the discovery that music has a definite enhancing influence on the mental and cognitive development of children, which takes place even in utero. Secondly, competition has become an integral part of social activities, education and training in the modern word. This is transferred to young children who grow up with the constant pressure to perform. One may add that regular practising cultivates a healthy self-discipline.

If the budding musician loses the enjoyment of music making, it eventually may become a burden. When the effort to achieve becomes greater than the reward of having achieved, loss of interest is almost guaranteed and a basis for ailments could become a reality. Once pressures, demands and stresses become the overriding driving force behind the child's playing of music, psychosomatic symptoms and signs may develop.

Musicians could be compared to athletes. Although athletes may start at an early age, their full potential is only known once they reach puberty. The next stage is extensive training under scientific supervision with the necessary backup from teachers, trainers, and a range of health professionals. This period usually lasts about 10 to 15 years.

Musicians on the other hand, usually start even before school age. Their talent is recognised very early on and is gradually promoted through training and encouragement. It is expected of them to perform at each concert without any mistakes. Musicians are also expected to adapt to their instruments (which may be ergonomically not suited for the particular individual), as well as their surroundings. Often they live a lonely

life because of long hours of practising, and their support system may consist only of close relatives and friends. Even from their colleagues one may find severe criticism, jealousy and even outright negative feelings. Furthermore, the musician practises many more hours than the average athlete, often does not take a break over weekends or holidays and may perform right up into old age. Also, with the 'normal' handicaps of everyday living such as arthritis, injuries and other ailments, the musician often battles to adapt or tolerate these handicaps without seeking medical help.

The incidence of medical conditions in musicians is unclear but some reports claim that up to 90% of musicians may suffer some ailment during their career. The aim of this report is to review the medical and surgical conditions affecting the musician, and to provide a practical approach for their management (1-5).

"the musician practises many more hours than the average athlete, often does not take a break over weekends or holidays and may perform right up into old age"

Preventative approach

1. Lifestyle and diet

The old dictum 'practise makes perfect' is very applicable to the musician, and long lonely hours are spent to master pieces. These music students often miss out on normal child's play, sport, socials and other activities. Parents and teachers should understand that a balanced lifestyle will ensure a balanced and healthy child.

Some foods are heavy on the stomach and may interfere with the student's concentration. Drinks with gas and stimulants like caffeine should best be avoided. It is important to re-hydrate the musician before any performance just as an athlete re-hydrates before an event. This keeps the tissues soft, pliable and promotes lubrication between tissue planes and structures. The level of dexterity required from top musicians can only be achieved if the tissues are well lubricated to allow gliding, and the muscles, which move these tissues, have enough energy (carbohydrates and lipids) and building blocks (proteins).

2. Musculoskeletal system

The best performance can be achieved from the mid-position of a muscle, i.e. the resting or balanced position of the muscle. This will allow excursion of the muscle, either side of this resting position, and also enhances the amount of muscle power generated. Athletes are well aware of this important physiological principle, and use stretching exercises to improve the excursion on either side of the mid-point. This should also apply to musicians (6).

Another indispensable preparation for any performance is warm-up exercises. This will prevent micro- and macro injuries to the muscle fibres, tendons, ligaments, sliding tissue planes, and all the various receptors and nerve endings responsible for sensory input (such as two-point discrimination, proprioception, vibration sense, temperature changes, light and deep pressure and stereognosis).

A further aspect is the clear understanding that peak performance and endurance of fingers and the hand can only be achieved if the supporting foundation also has the necessary strength and endurance. These foundations include the elbow, shoulder, neck, back and the whole torso. Most musicians severely neglect this aspect of their training. They should get into a habit of regularly engaging in physical exercises, such as non-contact sport or workout at home or in a gym.

3. Posture

Musicians and their teachers often underestimate the importance of a balanced posture. Many musical instruments are of a poor ergonomic design. Teachers should also be sensitive to normal anatomical variations in people. Some students have difficulty in full pronation of their forearms which make piano playing rather difficult. Others may have connections between their tendons, which would make individual finger playing difficult or impossible (e.g. Linburg-Comstock connection between Flexor polices longus and Flexor digitorum profundus of the index finger), or a non-functioning Flexor digitorum superficialis to the

small finger. Many other examples exist. It is of no use to force the child to do certain movements, if it is physically not possible or very difficult. A full neurovascular examination could exclude anatomical variations, which in some cases could easily be rectified.

Musical instruments are not holy and should be considered for adaptation or change if musicians have difficulty in reaching certain keys. Extensions and modifications could easily be fitted to instruments to allow for a more balanced hand and relaxed posture. For example, a violin may be too short or too long, twisting the upper part of the body into an awkward position, which will eventually lead to muscle spasms and pain. Professional help in this regard could be gained from trained occupational therapists, who are knowledgeable about the physical and psychological demands of the performing arts.

4. Exercise and training

John Williams, the guitar player, is quoted saying that for every half-hour he practises he would rest for one half-hour. During the half-hour rest, he would do stretching exercises as well as moving exercises. This is a very important physiological concept, which needs to be understood by all musicians. Movement encourages blood flow and therefore function. Function refers not only to muscle power; but also to all the various sensory modalities referred to earlier. These exercises could be either isometric or isotonic muscle contractions.

Isometric muscle contraction is responsible for stable fixed joint positions, i.e. no movement takes place, but the muscles stabilising the joints are co-contracted, whereas isotonic muscle contraction is responsible for active movement of joints. This contraction shortens and lengthens the muscle with resultant movements, such as the fingers. Stretching of muscles and nerves is an integral part of exercise, which 'resets' the full excursion of muscle and nerve movement. All soft tissue structures need to glide, to prevent stiffness. This is particularly true for nerves as well.

REPORT OF THE COMMITTEE ON THE MUSICIAN'S HAND

The committee on the Musician's Hand was established in 1995, and since then has continued with the same members: Yves Allieu, MD, Peter Amadio, MD, Allen Bishop, MD, Massimo Ceruso, MD, Naotaka Sakai, MD, Raoul Tubiana, MD, and Ian Winspur, MD. Over the years, the committee has given overviews on focal dystonia, carpal tunnel syndrome, and cubital tunnel syndrome as they affect musicians. In addition, committee members have edited two textbooks on the subject of the musician's hand: The Musician's Hand, edited by Ian Winspur, MD, and Medical Problems of Instrumental Musicians, edited by Raoul Tubiana MD and Peter C. Amadio, MD. The former text has been translated into Japanese and Korean.

Care of the musician's hand has evolved greatly since the committee was formed. Principally, there is a greater appreciation of the importance of nonsurgical therapies, especially reeducation and pedagogy. An alliance of clinician, musician, therapist and teacher is necessary for therapeutic success in many if not most cases.

At this point, the Committee looks to the future and sees new opportunities. Firstly, an infusion of new members is needed. Volunteers are welcome, and anyone interested in joining the committee should contact either the IFSSH Secretary General or the committee chair (pamadio@mayo.edu). Second, it is clear that the role of reeducation requires emphasis, consideration should be given to making this a combined IFSSH-IFSHT committee in the future. Finally, over the past few decades a number of multidisciplinary national societies of performing arts medicine have been created. The groups in the USA, UK, France, the Netherlands, Germany and Italy are particularly active. IFSSH should consider both publicising the dates and locations of these national meetings when they are known, and encouraging participation of IFSSH member societies in these performing arts organisations where appropriate.

Respectfully submitted,
Peter C Amadio,
MD, Chair

Nerves need to glide and be stretched.

However, prolonged continuous stretching and compression, for example, around corners at joints such as the ulnar nerve at the elbow, causes ischaemia because of reduced blood flow. Short-term ischaemia causes 'pins and needles' (paraesthesias), numbness and a burning pain, whereas longer-term ischaemia causes external and internal scar tissue formation and fibrosis with permanent symptoms and signs of nerve compression. It is therefore important to any performer that whenever he or she has a chance to relax between performances or pieces, soft tissues should be relaxed, stretched and exercised to stimulate blood flow(6). Active relaxation is a technique which physiotherapists could teach musicians to reduce muscle spasms, fatigue and improve blood flow. Relaxation exercises can be attained by a number of methods, which include the Alexander technique(7), the Feldenkrais method(8) and yoga.

Table I: History

- **Gender**
- **Age**
- **Musical history**
- **Symptoms – cramps/pain/weakness/sensory deficit (pins & needles, dead feeling, burning sensation)/subjective perception of difficulty in coordination and/or stiffness**
- **Signs – sweating/heart rate increase/dry mouth/palpitations**
- **Cognitive signs – forgetting/fright/fear**
- **Behavioural signs – drugs/medicine/tablets/pills/alcohol/cancelling performances**
- **Social activities – friends/parents/teachers**
- **Sporting activities – regular exercises/relaxation exercises**
- **Hobbies**
- **Financial**
- **Career stresses – competition/job security/conductor/fellow musicians/parents**
- **Triggering factors – overuse/type of instrument (musician-instrument interface)**

Table II : Examination

- **General medical examination**
- **Neurological examination – motor/sensation**
- **Vascular examination – swelling/blood supply/sweating/temperature**
- **Physical examination – pinpoint tenderness/posture/muscle co-ordination/power**
- **Perform with instrument/simulate**
- **Specific examination of affected part**
- **Special investigations – sonar/x-rays/bone scans/nerve conduction/MRI**
- **Blood test (RA, DM, Gout, Muscle enzymes, FBC, ESR, LFT, CRP)**
- **Diagnostic measures – local anaesthesia + steriods**
- **Consultations**

All stretching and active exercises must be done without pain. Pain is the signal that tissues have been damaged (torn), which leads to inflammation and swelling, and eventually to scar (fibrosis) formation. This fibrosis will reduce the amount of gliding of tissue planes (because of adhesions) and reduce the amount of muscle excursion (because of restricted elasticity).

Approach to specific problems

One should emphasise a holistic team approach to the management of health problems in musicians(9). Those most intimately involved with the musician, such as parents and teachers, should be sensitive to pick up any ailments and concerns(10). The musician should have the courage to approach the teacher and the parents with any problems that she or he may face before serious conditions could evolve. A case in point was a young, very talented musician, complaining of severe aches, pains and spasms in both her arms, which would only improve on rest. Physical examination did not reveal any abnormalities. However, her history indicated that she would develop these symptoms only after two hours of uninterrupted high performance playing. This was demanded by her teacher to 'improve muscle power and endurance'. This kind of illogical approach, unsympathetic behaviour with an unfounded scientific basis should be strongly discouraged.

It is important to explain to musician patients the basic anatomy and workings of their bodies, and how things could go wrong. This will diminish fear, uncertainty and

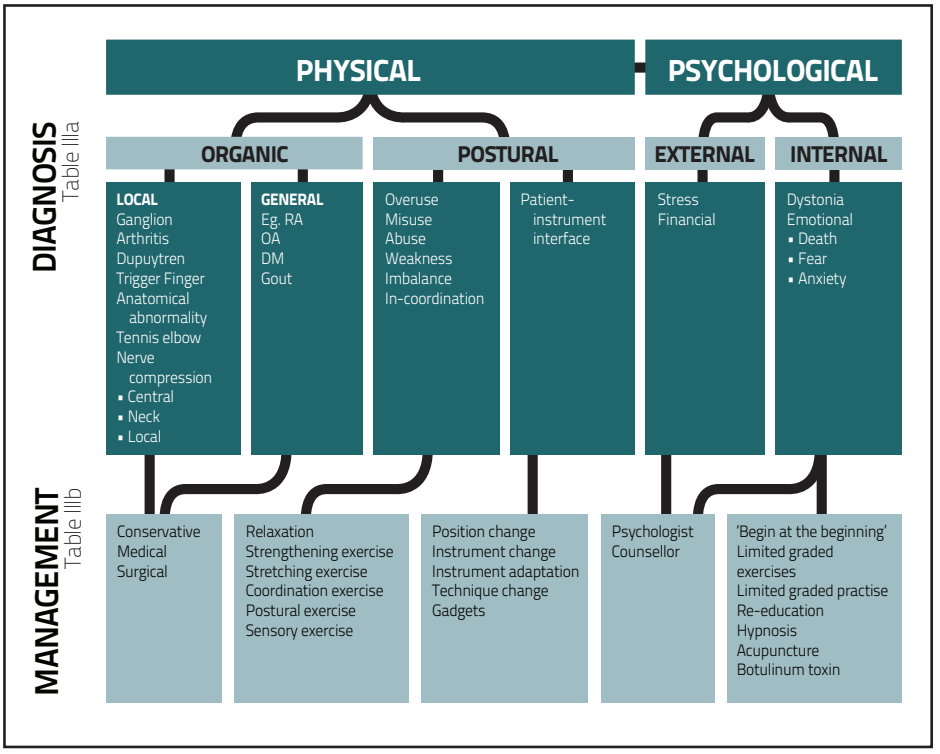
anxiousness. It will also help to improve communication and co-operation.

The musculoskeletal conditions affecting musicians can be grouped into three sections:

1. Common, everyday life ailments such as injuries, arthritis, rheumatic conditions and nerve compressions.
2. Overuse (too much of a normal activity), abuse (willfully causing damage) or disuse (incorrect activity or position). These are seen with poor posture, imbalances, and over training.
3. Stress related ailments such as musicians' cramps, spasms, and dystonia.

In order to arrive at a diagnosis and a plan of management, a thorough history and examination is mandatory.

Table I lists some of the pertinent points that need to be clarified in order to put the patient and his/her problem into proper perspective.



Examination

Apart from the points summarised in Table II, the following should also be considered:

- The general clinical examination which includes sensory, motor and vascular examination, should always compare with the contra-lateral normal side.
- Demonstration with the instrument is often essential to highlight the problem.
- Specific examination of the involved part should be done systematically, gently and meticulously.
- Specialised investigations may be needed to confirm and complement the clinical examination, e.g. sonar, nerve conduction, x-rays, technetium MDP bone scans, blood tests (to exclude conditions such as gout, rheumatoid arthritis, diabetes), biopsies from nerve, muscle or synovium .
- Diagnostic therapy, e.g. local anaesthetic with or without steroid injections may be indicated to exclude or confirm certain painful conditions.
- Consultations with the other team members or experts for second opinions are often helpful before a final diagnosis is made.

Diagnosis

It may not always be easy to arrive at a diagnosis. Table IIIa indicates the interrelationship between physical and psychological conditions; e.g. a tennis elbow could lead to poor posture which in turn presents as a dystonia.

Cautionary note: NEVER label a patient with an 'arbitrary' diagnosis, when the clinician is uncertain about the diagnosis.

Management

This depends on the diagnosis and may be multipronged as depicted in Table IIIb.

Once a diagnosis is made the management from the hand surgeon's point of view is relatively straightforward. An anatomical variation may be corrected, a tumour may be removed, a web space may be deepened or widened and arthritic joints may be dealt with in various ways. Special consideration should of course be given when dealing with the musician's hand, such as placing the surgical scar in a position which would not interfere with the performance of the musician's hands and fingers. An arthroplasty for an arthritic proximal interphalangeal joint may be more appropriate than an arthrodesis in

certain instrument players, whereas the reverse may be true in others. The range of excursion (arc of movement) of finger joints need to be considered when reconstructive surgery is done and may differ depending on the type of instrument played.

During the medical examination the emphasis should be on evaluating balance and coordination, and not only strength and endurance. Sometimes one sees an unbalanced posture of non-physiological position, which distorts the whole body resulting in a strained back, twisted neck, elevated shoulders, bent elbows and flexed wrists. Aches, pains and spasms will surely follow; and need to be addressed by restoring balance, prescribing appropriate exercises and attending to the musician-instrument interface.

Hyperlaxity of ligaments and therefore of the joints, may be a severe handicap to musicians. This laxity may be generalised, involving joints and/or tendons and ligaments; or localised, involving sets of joints, ligaments or tendons or only one joint, ligament or a tendon. Surgical plication, shortening or tightening of these structures may be needed.

Repetitive strain injuries (RSI), sometimes referred to as 'cumulative trauma disorders', is a very controversial topic. It would be prudent to either make a definite diagnosis or regard the problem as disuse, overuse or abuse rather than label the patient with RSI. Under normal circumstances, tissues can handle extensive exposure to repetitive movements over long periods without tissue damage, provided the general precautions have been taken, e.g. warming up, stretching and strengthening exercises, hydration, posture, etc. RSI is an artificial diagnosis seeking to place blame on some 'other cause' and therefore compensation may be claimed. To label a condition as RSI is dangerous and often unsupportable. Mostly one would find an underlying condition (eg De Quervain stenosingtenosynovitis) which is being aggravated by the playing of an instrument. This needs to be treated. It is not the instrument playing which caused the condition in the first instance(11), (12), (13).

"peak performance and endurance of fingers and the hand can only be achieved if the supporting foundation also has the necessary strength and endurance"

Other indications

Compartment syndrome of certain muscles or muscle groups, eg hypothenar muscles and more specific the Abductor digiti minimi, can develop in piano players with relatively small hands who have to over-stretch to reach all the keys. Certain demanding pieces, and having practised with great effort, may cause hypertrophy of the muscle (with some swelling) ending in a painful compartment syndrome. Conservative management may include an anti-inflammatory drug, ice, and pressure garment. If this prooves to be unsuccessful, a surgical decompression (fasciotomy) may be indicated.

The gliding of tissues can be curtailed severely by swelling. The synovium, is an anatomical structure to enhance gliding. Once this gliding layer which is responsible for lubrication is inflicted by disease and swelling, movement will be severely affected. Stiff joints and fingers can often be treated with an anti-inflammatory drug to reduce the swelling and increase movement. Swollen fingers can benefit greatly by wearing elastic gloves.

Sensory education and development has never been stressed when training musicians. One modality of sensation, namely proprioception, is such a fundamental function of all the joints of the body that without this modality no musical instrument can be played. Therapists should concentrate on proprioceptive acuity after an injury, surgery or in patients with hyperlaxity.

During the rehabilitation phase, the measurement of improvement helps as a psychological boost, however it is important to set limited, graded goals for a slow build-up especially if the original problem was due to overuse, misuse or disuse.

Occupational cramps, or to be more specific, musicians' cramps are also referred to as focal dystonia. Provided physical conditions, postural imbalances and overuse injuries have been eliminated, one may consider a diagnosis of dystonia. The cause of dystonia is still poorly understood. It

is suggested that the 'strain is in the brain', i.e. that the normal intricate interaction between the many parts in the brain which work together during music playing, becomes somehow disorganised. The delicate and complex integration between sensory input, interpretation, and motor execution becomes scrambled. It may be triggered by many factors. It may occur with one instrument, but not with another. Only one finger may be involved, or more than one including other parts of the arm. Only certain music pieces may elicit the spasms. The management thereof should be very sensitive and with a great deal of empathy, understanding and patience. Stressful situations such as overbearing parents or unreasonable teachers should be identified and dealt with circumspection.

Assessments by occupational, physical and hand therapists as well as the psychologist could prove helpful. Once the problem is unraveled, analysed and understood it is advisable to start right at the beginning and slowly build up to a level of performance, which would match the ability of the musician. Again, slow, graded, and attainable goals should be set. The brain therefore needs to be 're-set' (14), (15), (16).

Long-term strategies

Since many conditions may be interrelated and may have an emotional or a psychological overlay, a combination of treatment options need to be considered. This includes drug therapy for stage fright, anxiety, excessive sweating and tremors. Musicians should not use sedative

THE IFSSH AND ITS COMMITTEES: AN IMPORTANT ANNOUNCEMENT

One of the tasks of the President of the IFSSH is to appoint Chairpersons and Committee Members for the 30 Committees which form the backbone of the IFSSH. These Committees are extremely important in that they compile reports on all the many aspects of the Hand. These include amongst others: terminology, anatomy, function, evaluation, management, classification, therapy, prognosis, etc. These reports should be seen as 'oracles' of the IFSSH, since they represent a balanced view of respected colleagues internationally. Serving on any of these Committees is an achievement, and an honour, but also carries a responsibility.

You may want to volunteer to offer your expertise and make a very important contribution. If so, please contact the IFSSH President.

Guidelines that regulate the IFSSH Committee System

1. **The President and the President -Elect shall work together to ensure a continuity in soliciting Reports from appointed Committees. (ie reports from committees should be an ongoing process, and not restricted to the 3 year term of a president)**
2. **The Committee Chairpersons are identified for their expertise by the President (and assisted by the President-Elect) and requested to solicit additional committee members (max 4) to assist in producing a report on:**
   a. **a specific topic**
   b. **which can be published as an 'oracle' of the IFSSH,**
   c. **which will not be controversial or be the view of an individual,**
   d. **but reflect the view of the current ethos of the Hand Surgery Fraternity,**
   e. **will present the report within a designated time (max 6-9 months),**
   f. **which will be published in the IFSSHezine and posted on the IFSSH website for the benefit of all the members of the IFSSH.**
3. **The reports should be concise, could be overview reports, but to the point, non-controversial, universally acceptable information, and include the latest available information on the topic. It will therefore be a formal document which will reflect the viewpoint of the IFSSH community**
4. **The Committee shall serve for a period of 3 years, which may not necessarily coincide with the term of office of the president, ie the Committee term may overlap presidential terms. Since these are official IFSSH committees, serving on them will be regarded as an honour and professional achievement.**

drugs such as the benzodiazepines, since they cloud judgment, cause sleepiness and depression and lead to addiction. Alcohol may 'calm the nerves' and boost one's confidence, but also may cloud the judgment and suppresses reflex time. It may be wise to follow the general rule: Don't drink and play.

Caffeine, which is contained in coffee, tea and cola, may cause tremour, anxiety and insomnia. Other drugs, such as beta-adrenergic receptor antagonists (e.g. propranolol) block the physical effects of adrenaline such as anxiety, tremour, sweating and reduce the heartbeat. Generally, they are safe in healthy people, but should not be used in patients with asthma, heart problems and pulmonary obstructive disease. Side effects may however include slowing of finger movement and insomnia. These drugs do not enhance performance, but will allow a more optimal performance. When these are prescribed for the first time, the dose and timing should be tried during a non-important event. However, on a cautionary note, one should emphasise that these medicines should only be used as single doses for the exceptional occasion. If a drug is used regularly the musician may become psychologically dependent on this 'crutch', so that performance without these drugs may become difficult or even impossible.

"proprioception is such a fundamental function of all the joints of the body that without this modality no musical instrument can be played"

Conclusion

Very often factors such as job security and pressure from peer and support groups prevent the musician from making an issue of his or her specific ailment. Musicians should develop the confidence to approach their teachers, conductors, parents and peers when they have a problem. It is better to solve the problem earlier rather than later, as it will make rehabilitation and the earlier achievement of peak performance much easier. Musicians should also have the right to have 'off days', make mistakes and be 'out of synch' with their biological clockwork. Often insurmountable problems, as seen from the musician's perspective, may indeed be a simple medical problem that could easily be solved.

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Thieme

IFSHT: Hand Therapy

HAKIR

A national quality register for hand surgery in Sweden

Editor's note: *"The Hand Therapy contribution in this issue comes from Sweden. In an effort to measure the outcome of surgery and therapy as well as various methods and procedures, a broad based national registry is being introduced to monitor the efficacy of the management of various hand conditions. This National Registry could reveal interesting information, such as 'claimed results' (third party involved) vs ' perceived results'(second party involved) vs. ' patient satisfaction'(first party involved) !"*

Relevance and purpose

Many medical disorders manifest in the hands and one out of five injuries in an emergency ward is a hand injury, often in young and active patients. Hand function is important for the individual's independence in activities of daily living, as well as for the ability to work. The seven specialised hand surgery departments in Sweden together perform approximately 20 000 operations per year. Within the speciality of hand surgery there has been no previous national quality register. HAKIR aims to continuously and with standardised methods, follow up hand surgical quality of care, using patient reported outcomes, as well as objective measurements in order to gradually increase effectiveness and improve patient care and safety.

National coverage and annual volume

All seven departments specialised in hand surgery in Sweden take active part in HAKIR and will in time start to register. We are aiming for a complete national coverage within the next 2-3 years.

Design and outcome measures

All patients that are operated on at the hand surgery department are included in a basic registration. This includes data on which operation has been performed, all complications that may have lead to a second operation, e g, infection, tendon rupture, nerve damage etc, and the use of prophylactic antibiotics. In the basic registration, all patients also receive a questionnaire before the operation, as well as 3 and 12 months postop. The questionnaire includes 8 visual analogue scales on specific hand symptoms, as well as a validated disability score (QuickDASH). After surgery, patient satisfaction is also scored. For ten selected operation types, an extended registration is added including more information on the procedure performed and also

functional outcome measures, such as range of motion and grip strength.

Reporting data

Reporting of data into the register takes place on four occasions; before surgery, at the time of surgery, 3 and 12 months post surgery. HAKIR is entirely web-based; including the questionnaire, but it is also possible to register on paper. Patients get reminders for postop questionnaires through a sms-service and register their data on-line.

National measurement manual

In order to reach high reliability and validity in the register, the rehabilitation units in all Hand Surgery departments have developed a Swedish clinical assessment. This assessment is called the National Measurement Manual and includes range of motion and strength measurements of the elbow hand and fingers. Physiotherapists and occupational therapists mostly perform the measurements, since they are accustomed to measuring and able to show good reliability for comparison.

Feedback and data analysis

All participating departments have complete and continuous access to their own data and are responsible for giving feedback to the individual patient, as well as for using the data in clinical improvement. A data report is presented at the annual meeting of the Swedish Society for Surgery of the Hand and at the annual register day. Continuous feedback, general information and all protocols are available at the register website: www.hakir.se.

Why is HAKIR important?

During the last decades, several new and expensive surgical techniques have been introduced in the practice of hand surgery; e g, joint prostheses and implants for fracture surgery. The relatively small number of patients makes it difficult to perform randomised controlled trials with sufficient statistical power. Through standardised and continuous follow-up of hand surgical quality of care, including patient reported outcomes as well as functional outcomes, surgical techniques can be compared and techniques associated with a higher risk of complications are more easily sorted out. Quality registries also promote the standardisation of surgical methods and postoperative treatments, which can help optimise health care. Last but not least, this new register will ensure that the patient reported experience of care receives more attention.

Annika Elmstedt RPT
Head of the Rehabilitation unit, Dept. of Hand Surgery,
Södersjukhuset, Stockholm
www.hakir.se

Pioneers in Hand Surgery

IFSSH Pioneer profile:

Professor Raoul Tubiana

Professor Tubiana has made major contributions to Hand Surgery in his authorship of major texts and scientific articles, his promotion and development of specialised hand surgery centers and his leadership in organisation of hand societies and teaching programmes.

Professor Tubiana was born in Constantine. He studied medicine at the University of Paris, and completed his Medical Thesis in 1939. Following a year in the French Army, he was an intern of the Paris Hospitals from 1940 to 1942. Professor Tubiana's excellence in Hand Surgery is partly the result of a remarkable multidisciplinary exposure and training as he relates so well in his book The Hand*. For three years he served as an Army Medical Officer with the French Liberation Forces in North Africa, Corsica, and France. While at the Reconstructive Surgery Unit of the First French Army, he was exposed to the Orthopaedic Surgery discipline, through the influence of Merle d'Aubigne and to the Plastic Surgery discipline through John M. Converse after completing his training in Orthopaedic Surgery. He developed a strong interest in hand injuries and burns. This has stimulated him to take a series of study trips, first to England, visiting Gillies, McIndoe, Mowlem, Seddon, and Pulvertaft. He spent further time in the United States with Sterling Bunnell, Sumner Koch, Michael Mason, and Harvey Allen.

Professor Tubiana was a Founding Member and Secretary General of the French Society for Surgery of the Hand from 1964 to 1972 and its President in 1973. He was President of the French Society of Plastic Surgery in 1972, and President of the British Society for Surgery of the Hand in 1973. Professor Tubiana was the President of the International Federation of Societies for Surgery of the Hand from 1972 to 1974.

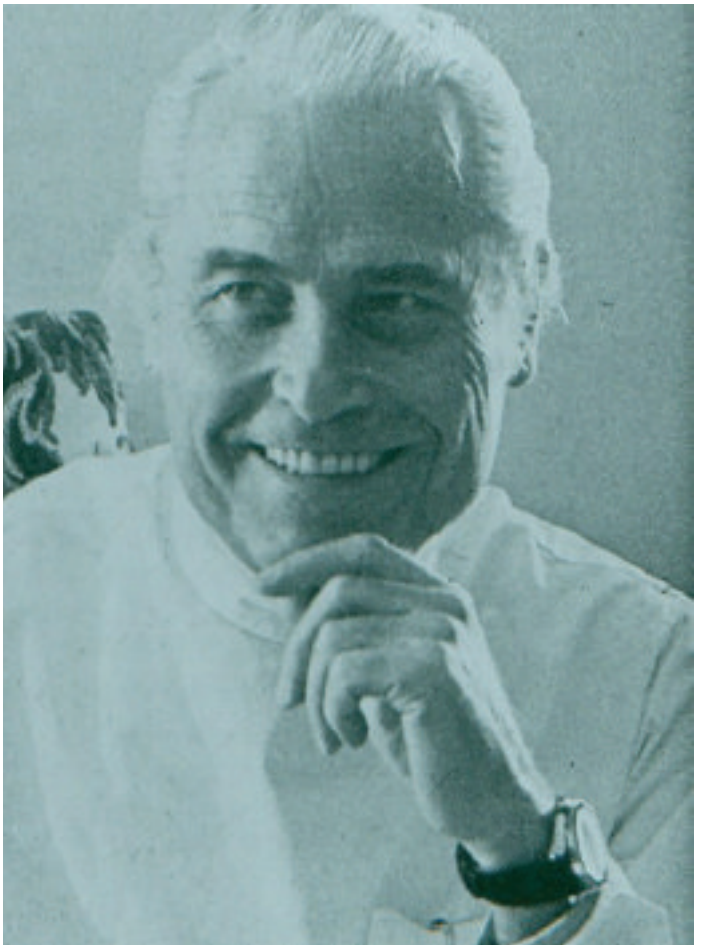
Professor Tubiana was Associate Professor at the University of Paris, Scientific Director of the Hand Institute since 1972, Chief Editor of the G.E.M.'s Monographs since 1966 and was Chief Editor of the Annals of Hand Surgery. Professor Tubiana was an honorary or corresponding member of many international societies including the British Orthopaedic Association, the American Society for Surgery of the Hand, the German, Italian, South American, Dutch and Canadian Societies for Surgery of the Hand. Professor Tubiana was a member of the Academy of Surgery and a Chevalier of the Legion of Honor.

Professor Tubiana and his wife Claude lived on the banks of the River Seine in Paris, overlooking the Notre Dame Cathedral. He was a collector and connoisseur of the fine art which was reflected in an outstanding collection of art masterpieces.

"The Hand", Vol 1 p XXI – XXXII, W B Saunders, Philadelphia, 1981

IFSSH Pioneer profile:

Professor Claude Verdan



Professor Verdan developed the first clinic especially devoted to Hand Surgery. His work on primary suture of flexor tendons influenced world thinking on this subject. His writings and presentations on the care of wounds of the hand are classical. He has had great interest in History and Art as related to the hand.

Professor Verdan was a graduate of the Faculty of Medicine of Lausanne, Switzerland, where he distinguished himself by receiving the Medaille d'Or de la Faculte et le Prix Cèsar Roux. He did his postgraduate training in Lausanne, Geneva and Zurich, where he studied medicine, pathology, bacteriology and surgery. In 1946 he founded the Clinique Chirurgicale et Permanence de Longeraie in Lausanne and later became Chief of the Surgical Clinic of the University of Lausanne. He was Professor of Surgery at the Medical Faculty of the University of Lausanne where he also served as Dean from 1972 to 1974, and later as Professor Honoris Causa. Professor Verdan was made a member of the Senate of the Swiss Academy of Medical Sciences in 1974.

Professor Verdan was a member of many national and international societies of Plastic and Reconstructive Surgery, Hand Surgery, Orthopaedic Surgery, and Surgery, including societies from France, Germany, Austria, Belgium, Spain, Italy, England, and the United States. He is a founding member of the Swiss Society for Surgery of the Hand which he served as Secretary General from 1966 to 1972. He served as President of several prestigious groups including the Sociètè Suisse de Medecine des Accidents et des Maladies Professionnelles (1961-1966), the French Society of Plastic and Reconstructive Surgery (1964), the Swiss Society of Plastic and Reconstructive Surgery (1973-19074), and the Groupe d'Etude de la Main (1975-1976). Professor Verdan was an Emeritus Member of the International Society of Surgery and of the International Society of Orthopaedic and Traumatology.

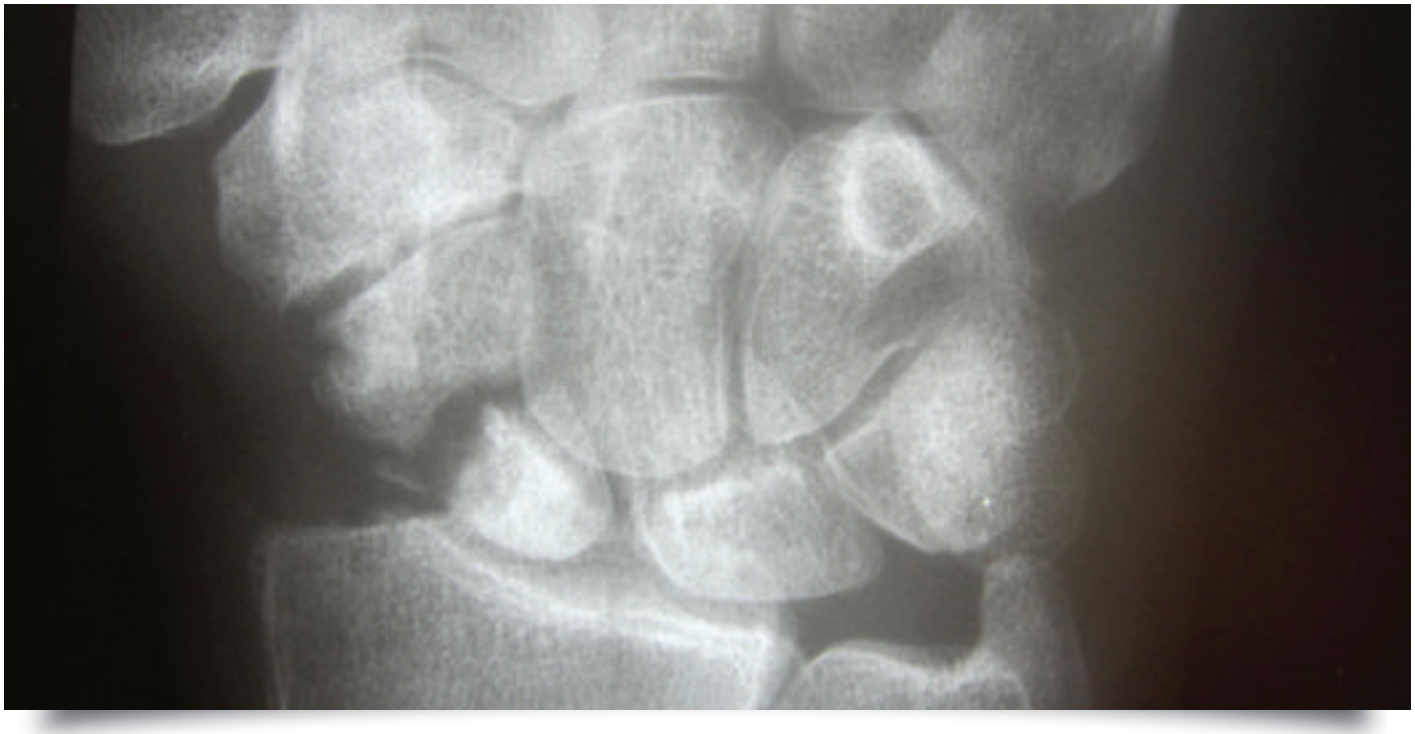
Professor Verdan has been guest professor at many renowned Hand Surgery centers throughout the world. He delivered the Sterling Bunnell Memorial Lecture in San Francisco in 1971. He is the author of more than 320 publications and of three textbooks, including one on the "History of the Swiss Society of Plastic, Reconstructive and Aesthetic Surgery." Professor Verdan was a writer and an artist who has created several sculptures on his topic of fascination, the Hand.

Following his retirement from practice, Professor Verdan was the dedicated Chief Editor of the Annals of Hand Surgery from 1981 to 1985. In Lausanne, he has created the Musèe de la Main de L'Homme, a museum dedicated to the study of the human hand and its fundamental importance in the hierarchy of human evolution and values.

Professor Verdan iwas an associate member of the Surgical Academy, Paris, and a Chevalier of the Legion of Honor.

He and his wife Sylva resided in Lausanne, Switzerland.

Case Study



In our previous issue we posted this x-ray and asked what further management you would recommend.

HISTORY: 25 year old, male, right dominant, auditor, enjoys sport
Injury: fell on left hand. November 2007
Diagnosis: Scaphoid fracture
First operation: 2008 screw fixation
Second operation: 2009 screw fixation & bone grafting
Third operation: 2010 K-wire fixation & bone grafting and radius stylodectomy
Now: avascular necrosis proximal pole left scaphoid non-union
Clinically: slight discomfort, more with axial pressure, no pain, wrist extension 0-30°, wrist flexion 0-35°

Here is what some of our readers suggested:

- Vascularized bone graft or resect distal scaphoid – Jim Urbaniak, USA
- My proposal to the patient would be vascularized bone graft as a free from the medial femoral condyl or pediculated from the secon metacarpal on the FDMA - Binka Popova, UK
- Scaphoidectomy + 4-corner fusion – Mario Luc, Canada
- If nearly no pain: let it be and protection splint for sports. If symptomatic : large cortico-cancellous bone graft (iliac crest = good quality) and fixation with 2 mini screws and casting for 3 months, rx controls 4,8 and 12 weeks. Two mini (2.0) screws: better rotational stability, no « empty » space between the threads, small volume. Should be at least equal to a vascularized bone graft, because big defect. - Michael Sturzenegger, Switzerland

Thank you for sharing your answers !

CTS education class becomes effective treatment pathway

United Kingdom

A study led by Sarah Dalton, a highly specialised Hand Therapist, undertook to evaluate the carpal tunnel class of patients and to assess outcome and efficiency. In order to determine the efficiency and efficacy of the management of patients with CTS within a class setting, the results were assessed and reviewed over a one-year period.

During this time, patients were provided with an appointment for the CTS class. All attendees completed an initial assessment form and a 1:1 assessment by a physiotherapist. A computer-based presentation was delivered within the class and patients were provided with prefabricated wrist splints in a neutral position and an education leaflet. Eighty-nine patients were followed up by a telephone call at six weeks and completed a telephone outcome form. A discharge letter was completed and sent to the referrer advising of the patients' outcome with further treatment recommendations if appropriate.

For Sarah, the most interesting outcome of this research was that most patients had improved or resolved their nocturnal symptoms with nocturnal splinting, many did not have cervical referred symptoms, however some patients referred had ulnar nerve symptoms or trigger finger/thumb.

"Many patients are referred with CTS to the hand therapy department and seeing patients in a class situation helped to standardise advice and treatment and allow efficient working practice," she explained, adding that at the six-week telephone follow-up 47% patients required no further treatment, 42% patients were recommended for further investigation, and 11% of patients either had or planned to have carpal tunnel decompression.

Sarah believes the new CTS class provides an efficient and effective treatment pathway for patients with CTS. "It's important to understand that early referral to hand therapy is advisable if splinting is to help minimise/resolve symptoms. In addition, the role of nocturnal splinting and the use of neutral splinting (versus splinting in classic future position of extension) are also important. This also demonstrates the role of patient education in helping with ergonomic induced symptoms," she concluded.

"the new CTS class provides an efficient and effective treatment pathway for patients with CTS"

JOURNAL REFERENCE

Service development and evaluation of a new carpal tunnel syndrome education class
Hand Therapy March 2010 vol. 15 no. 1 13-19
[http://ht.rsmjournals.com/content/15/1/13.abstract]

Journal Highlights

Below is a selection of contents pages from the latest issues of the following leading hand surgery journals. Hover your mouse over each article heading and click to go to the original abstract page of the article.

Hand

Volume 6, Number 4, December 2011

- Percutaneous fasciotomy for the treatment of Dupuytren's disease—a systematic review - Saoussen Salhi, Etienne Cardin-Langlois and Mario Luc
- Upper extremity and digital replantation - Marco Maricevich, Brian Carlsen, Samir Mardini and Steven Moran
- A retrospective multicenter study of the Artelon® carpometacarpal joint implant - Robert Bell, Sanjay Desai, Hugh House, Terrence O'Donovan and Andrew K. Palmer
- Surgical management for malignant tumors of the thumb - Mark E. Puhaindran, Corey P. Rothrock and Edward A. Athanasian
- Retrospective analysis demonstrates no advantage to operative management of distal ulna fractures - Emily A. Williams and Jeffrey B. Friedrich
- Analysis of the inter- and intra-observer agreement in radiographic evaluation of wrist fractures using the multimedia messaging service - Andrea Ferrero, Guido Garavaglia, Roland Gehri, Ferruccio Maenza and Gianfranco John Petri, et al.
- Transillumination of hand tumors: a cadaver study to evaluate accuracy and intraobserver reliability - Holger C. Erne, Thomas R. Gardner and Robert J. Strauch
- Changing trends in pediatric upper extremity electrical burns - Simon G. Talbot, Joseph Upton and Daniel N. Driscoll
- Tendon injury produces changes in SSCT and nerve physiology similar to carpal tunnel syndrome in an in vivo rabbit model - Tamami Moriya, Chunfeng Zhao, Stephen S. Cha, James D. Schmelzer and Phillip A. Low, et al.
- A new technique of locked, flexible intramedullary nailing of spiral and comminuted fractures of the metacarpals: a series of 21 cases - Mandar V. Agashe, Sanjay Phadke, Vikas M. Agashe and Hemant Patankar
- Transverse anatomic landmarks for the A1 pulley of the thumb - Ron Hazani, Josh Elston and Bradon J. Wilhelmi

Journal of Hand Surgery (European Volume)

Volume 37, Issue 2, February 2012

- Simplifying four-strand flexor tendon repair using double-stranded suture: a comparative ex vivo study on tensile strength and bulking
- Bioreactor optimization of tissue engineered rabbit flexor tendons in vivo
- Severe ulnar nerve entrapment at the elbow: functional outcome after minimally invasive in situ decompression
- Socioeconomic deprivation and the epidemiology of carpal tunnel syndrome
- Two-year outcomes of Elektra prosthesis for trapeziometacarpal osteoarthritis: a longitudinal cohort study
- Addition–subtraction osteotomy with ligamentoplasty for symptomatic trapezial dysplasia with metacarpal instability
- Improvement in pinch function after surgical treatment for thumb in the plane of the hand
- Arthrodesis of the wrist with bone autograft and Hoffmann external fixation
- Accuracy of intrasheath injection techniques for de Quervain's disease: a cadaveric study
- Comparison of surgical treatment and nonoperative management for radial longitudinal deficiency
- Bone bridge resection for correction of distal radial deformities after partial growth plate arrest: two cases and surgical technique

Journal of Hand Therapy

Volume 25, Issue 1, January 2012

- Effectiveness of Different Methods of Resistance Exercises in Lateral Epicondylosis—A Systematic Review - Jayaprakash Raman, Joy C. MacDermid, Ruby Grewal
- Effect of Lateral Epicondylosis on Grip Force Development - Amrish O. Chourasia, Kevin A. Buhr, David P. Rabago, Richard Kijowski, et al.
- The Long-term Relationship between Duration of Treatment and Contracture Resolution Using Dynamic Orthotic Devices for the Stiff Proximal Interphalangeal Joint: A Prospective Cohort Study - Celeste Glasgow, Jenny Fleming, Leigh R. Tooth, Richard L. Hockey
- Effect of Total End Range Time on Improving Passive Range of Motion - Kenneth R. Flowers, Paul C. LaStayo
- Common Interlimb Asymmetries and Neurogenic Responses during Upper Limb Neurodynamic Testing: Implications for Test Interpretation - Benjamin S. Boyd
- Cross-cultural Adaptation and Psychometric Testing of the Hindi Version of the Patient-rated Wrist Evaluation - Saurabh P. Mehta, Bhavna Mhatre, Joy C. MacDermid, Amita Mehta
- Management of Dominant Upper Extremity Injuries: A Survey of Practice Patterns - Kathleen E. Yancosek
- A Retrospective Review to Determine the Long-term Efficacy of Orthotic Devices for Trigger Finger - Kristin Valdes
- The Hamilton Inventory for Complex Regional Pain Syndrome: A Cognitive Debriefing Study of the Clinician-based Component - Tara Packham, Joy C. MacDermid, James Henry, James R. Bain

Hand surgery: Asia Pacific

Volume 16, Issue 3 2011

- Ultrasonographic findings in cubital tunnel syndrome caused by a cubitus varus deformity H. Shimizu, M. Beppu, T. Arai, H. Kihara and K. Izumiyama
- Continuous peripheral nerve block in forearm for severe hand trauma Ryusuke Osada, Mineyuki Zukawa, Eiko Seki and Tomoatsu Kimura
- The flexor carpi radialisbrevis muscle — an anomaly in forearm musculature: a review article - S. Y. M. Ho, C. J. Yeo, S. J. Sebastin, T. C. Tan and A. Y. T. Lim
- Wrist denervation in isolation: a prospective outcome study with patient selection by wrist blockade - P. A. Storey, T. Lindau, V. Jansen, S. Woodbridge, L. C. Bainbridge and F. D. Burke
- Accurate radiographic measurement of the distal radial tilt - Benjamin Rajabi, Oyvind Roed, Kristian Roed, Paal Sandoe Alm-Paulsen, Harald Russwurm and Vilhjalmur Finsen
- Locking palmar plate fixation for dorsally displaced fractures of the distal radius: a preliminary report - Koji Moriya, Hidehiko Saito, Yuji Takahashi and Hiroyuki Ohi
- Prevention of flexor pollicis longus tendon rupture after volar plate fixation of distal radius fractures - Kaoru Tada, Kazuo Ikeda, Kenji Shigemoto, Seigo Suganuma and Hiroyuki Tsuchiya
- Clinical outcomes of excision arthroplasty for Kienbock's disease - Tomoya Matsuhashi, Norimasa Iwasaki, Hiroyuki Kato, Michio Minami and Akio Minami
- Macromastia: a risk factor for carpal tunnel syndrome? - Ana Silva Guerra, Carlos Marques Correia, José Manuel Videira e Castro and Maria Angélica Almeida
- High definition ultrasound as diagnostic adjunct for incomplete carpal tunnel release - Ter Chyan Tan, Chong Jin Yeo and Einar Wilder Smit
- Opponoplasty without postoperative immobilization - Ichiro Okutsu, Ikki Hamanaka and Aya Yoshida
- Outcomes of silastic trapezium replacements - D. P. A. Jewell, M. B. S. Brewster and M. A. Arafa
- Hand infection in diabetic patients - Amir Jalil, Philip Ian Barlaan, Boris Kwok Keung Fung and Josephine Wing-Yuk Ip
- Proximal phalanx injection for trigger finger: randomized controlled trial - K. Pataradool and T. Buranapuntaruk

Journal of Hand Surgery: American volume

Volume 37, Issue 2, February 2012

- Cellular Apoptosis and Proliferation in the Middle and Late Intrasynovial Tendon Healing Periods Ya Fang Wu, You Lang Zhou, Wei Feng Mao, Bella Avanessian, Paul Y. Liu, Jin Bo Tang
- An Analysis of the Pull-Out Strength of 6 Suture Loop Configurations in Flexor Tendons

  T. Karjalainen, M. He, A.K.S. Chong, A.Y.T. Lim, J. Ryhane
- Surgical Repair of Multiple Pulley Injuries—Evaluation of a New Combined Pulley Repair

  V. Schöffl, T. Küpper, J. Hartmann, I. Schöffl
- The Effect of the Number of Cross-Stitches on the Biomechanical Properties of the Modified Becker Extensor Tendon Repair Kyung-Chil Chung, Bong Jae Jun, Michelle H. McGarry, Thay Q. Lee
- Predictors of Pain During and the Day After Corticosteroid Injection for Idiopathic Trigger Finger Abhishek Julka, Ana-Maria Vranceanu, Apurva S. Shah, Frank Peters, David Ring
- Trigger Finger Treatment: A Comparison of 2 Splint Designs Kauser Tarbhai, Susan Hannah, Herbert P. von Schroeder
- Interobserver Reliability of Computed Tomography to Diagnose Scaphoid Waist Fracture Union Geert A. Buijze, Mathieu M.E. Wijffels, Thierry G. Guitton, Ruby Grewal, C. Niek van Dijk, David Ring, The Science of Variation Group
- The Fixation Strength of Scaphoid Bone Screws: An In Vitro Investigation Using Polyurethane Foam Louise A. Crawford, Eric S. Powell, Ian A. Trail
- Single Versus Double End-to-Side Nerve Grafts in Rats Nahoko Iwakura, Seiji Ohtori, Tomonori Kenmoku, Takane Suzuki, Kazuhisa Takahashi, Kazuki Kuniyoshi
- Minimum 4-Year Follow-Up on Contralateral C7 Nerve Transfers for Brachial Plexus Injuries David Chwei-Chin Chuang, Catherine Hernon
- Role of Wrist Arthrodesis in Patients Receiving Double Free Muscle Transfers for Reconstruction Following Complete Brachial Plexus Paralysis Ahmad Addosooki, Kazuteru Doi, Yasunori Hattori, Abhijeet Wahegaonkar
- Predicting the Outcome of Revision Carpal Tunnel Release John D. Beck, Justin G. Brothers, Patrick J. Maloney, John H. Deegan, Xiaoqin Tang, Joel C. Klena
- Meta-analysis of Imaging Techniques for the Diagnosis of Complex Regional Pain Syndrome Type I Zachary J. Cappello, Morton L. Kasdan, Dean S. Louis
- Ability of Near Infrared Spectroscopy to Measure Oxygenation in Isolated Upper Extremity Muscle Compartments Ashley L. Cole, Richard A. Herman Jr, Jonathan B. Heimlich, Sahir Ahsan, Brett A. Freedman, Michael S. Shuler
- Reconstruction of Distally Degloved Fingers With a Cross-Finger Flap and a Composite-Free Flap From the Dorsum of the Second Toe Bin Wang, Xu Zhang, Wenping Jiang, Tiepeng Ma, Hao Li, Hui Wang
- Reconstruction of an Entire Metacarpal and Metacarpophalangeal Joint Using a Fibular Osteocutaneous Free Flap and Silicone Arthroplasty Neil F. Jones, Brian P. Dickinson, Scott L. Hansen
- Exaggerated Inflammatory Response and Bony Resorption From BMP-2 Use in a Pediatric Forearm Nonunion Andrew W. Ritting, Elizabeth W. Weber, Mark C. Lee
- Long-Term Results of Forearm Shortening and Volar Radiocarpal Capsulotomy for Wrist Flexion Deformity in Children With Amyoplasia Ronald C. Burgess, Rudy Robbe
- Community-Acquired Methicillin-Resistant Staphylococcus aureus Hand Infections in the Pediatric Population Michael Thomas Chung, Patrick Wilson, Brian Rinker
- Objective Structured Assessment of Technical Skill in Upper Extremity Surgery Ann VanHeest, Bradley Kuzel, Julie Agel, Matthew Putnam, Loree Kalliainen, James Fletcher
- Arthroscopic Knotless Peripheral Triangular Fibrocartilage Repair William B. Geissler
- Intrafocal Pin Plate Fixation of Distal Ulna Fractures Associated With Distal Radius Fractures Brian J. Foster, Randy R. Bindra

Upcoming events

Sociedade Brasileira de Cirurgia da Mao

(Brazilian Hand Surgery Society)
32nd National Meeting
April 28-30, 2012
Sao Paulo, Brazil
Chairman: Ivan Chakkour
www.mao2012.com.br
e: atendimento@cirurgiadamao.org.br

14th Congreso Sudamericano de Cirugia de la Mano

(14th South American Hand Surgery Meeting)
In conjunction with the

33rd National Meeting of the Brazilian Hand Surgery Society

April 25-27, 2013
Rio de Janeiro, Brazil

Chairmen: Luiz Carlos Sobania (South America) and Anderson Vieira Monteiro (Brazil)
e: atendimento@cirurgiadamao.org.br

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2012 New Zealand Hand Surgery Society Conference

Sunday 12 - Wednesday 15 August 2012

Millennium Hotel, Queenstown

AUGUST 2012

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