www.ifssh.info VOLUME 2 ISSUE 3 AUGUST 2012

ezine ifssh

CONNECTING OUR GLOBAL HAND SURGERY FAMILY

MEMBERS NEWS

- An update from the Secretary General
- Presidential address: Antwerp, Belgium June 2012

IFSSH & IFSHT INDIA 2013

ABSTRACT DEADLINE: 31 AUGUST 2012

IFSSH reports from Antwerp Belgium

SPLINTING THE CHILD: HAND THERAPY PERSPECTIVE

COMMITTEE REPORT: DUPUYTREN'S CONTRACTURE

COMING SUMMER 2012

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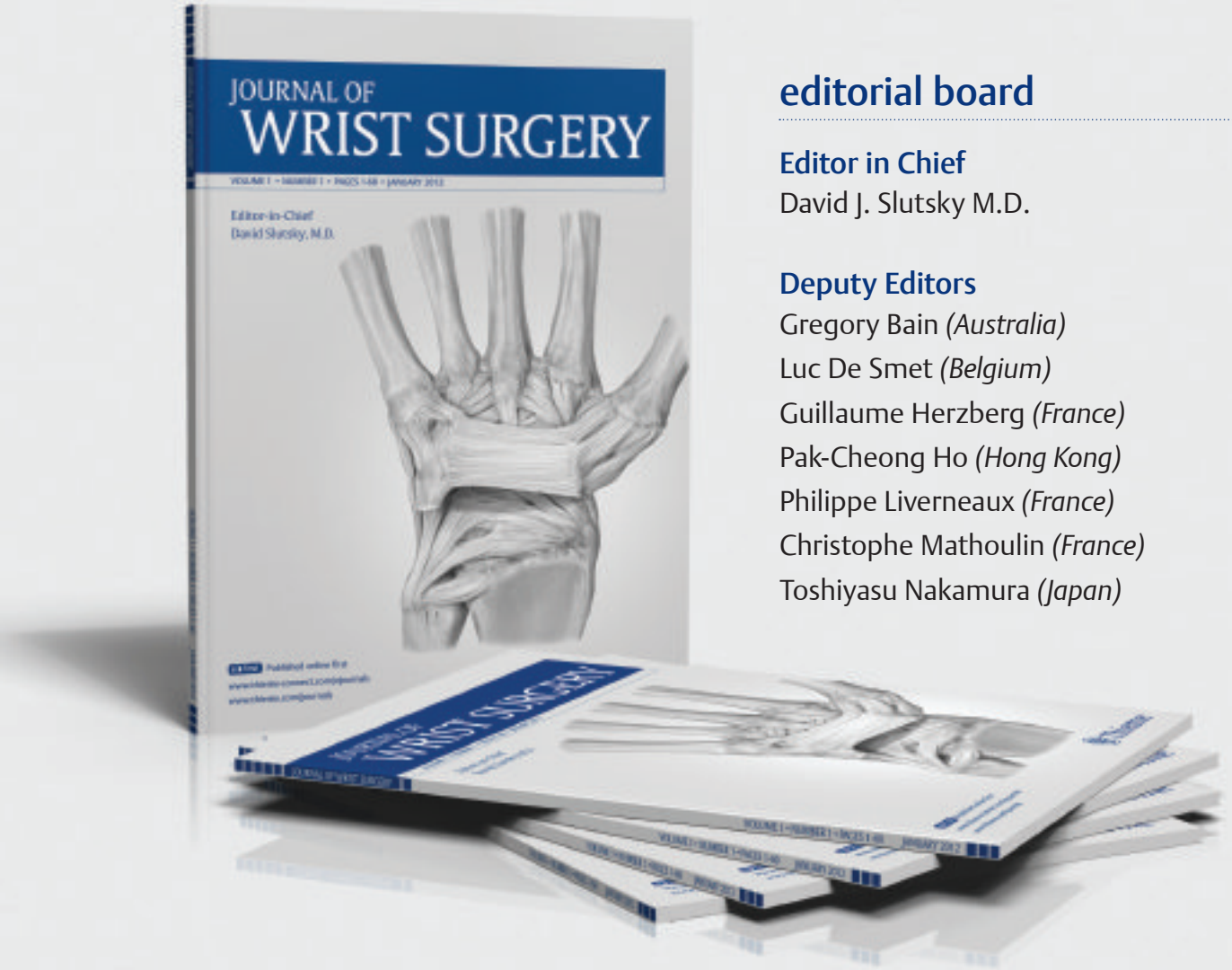

editorial board

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Welcome to India

4th - 8th March, 2013
INDIA EXPO CENTRE
Greater Noida – New Delhi, NCR

12th Triennial Congress of the IFSSH & 9th Triennial Congress of the IFSHT

'Let us join hands to mould the future'

Congress Secretariat

Dr. S Raja Sabapathy
Organising Chairman
Email: chairman@ifssh-ifsht2013.com
Web: www.ifssh-ifsht2013.com

Congress Managers

Plan it! by Creative Travel
Email: secretariat@ifssh-ifsht2013.com
Web: www.planit-india.com

online REGISTRATION OPENS | 1st March, 2012

Dear colleagues

The reason why we as individuals tend to group together (eg. meetings, congresses, clubs, societies, associations, federations) is probably due to our herd instinct! This is a good basic urge, which helps us to enhance our collective knowledge and expand our experience by sharing information.

Not long ago the importance of the hand was recognised, first in improving the management of the injured hand, which was followed by many conditions which, with newer techniques, instruments and drugs, could be improved in terms of function, appearance and relief of pain.

The management of the hand has in a relative short time become one of the major role players in healthcare. The injured hand is by far the major cause for lost time in the workplace. It is only in the last 50-60 years that groups of concerned hand surgeons have come together to exchange views and deliberate to achieve a collective deeper understanding.

Eventually, societies and associations were established, which were, in turn, grouped together as federations. As recently as 1966, the International Federation of Societies for Surgery of the Hand (IFSSH) was formed by only eight member societies. This number has now grown to 50.

The uniqueness of the IFSSH lies in its diverse constitution, and its importance lies in its multitude of ideas.

The IFSSH is engaged in the following activities:

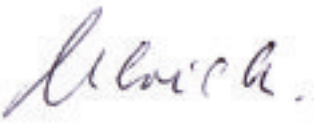
1. Triennial Congress (rotating in various parts of the world)
2. Scientific Committees (about 30, which produce on occasion official reports on various aspects of the Hand)
3. IFSSH ezine electronic turning page magazine (ezine@ifssh.info), which is sent to all who are interested in the Hand, and in doing so, distribute, amongst other information, the following worldwide:
   - Committee reports
   - Trade Product announcements
   - Hand Meetings
   - Anecdotes and Letters
   - Case Reports and Problem Cases
   - Indexes of published articles in major Hand Journals
   - Member news
   - Hand Therapy information - practical applications
   - In depth discussion with Researchers
   - Profiles of Pioneers of Hand Surgery
   - Announcements of Meetings
4. Educational Grants: substantial funds are available for worthy educational projects through the National Societies)
5. IFSSH website (www.ifssh.org) – featuring information such as Committee reports, Terminology of Hand Surgery, addresses, photo gallery
6. Interaction with Hand Therapy - International Federation of Societies for Hand Therapy (IFSHT)
7. Standardised terms, concepts and classifications

As a Hand Surgeon or Hand Therapist, please feel free to become involved in our 'herd' and exercise your 'herd instinct'! Feel free to write to the IFSSHezine (ezine@ifssh.info) and share your opinions and ideas.

We need to cross-pollinate; we need to see and think laterally.

With sincere regards,
Ulrich

Ulrich Mennen
President: IFSSH. Editor: IFSSHezine



IFSSH ezine editorial team:
Editor: Professor Ulrich Mennen (President of the IFSSH)
Deputy Editor: Professor Michael Tonkin (President-elect of the IFSSH)
Publication coordinator: Marita Kritzinger (Apex ezines)
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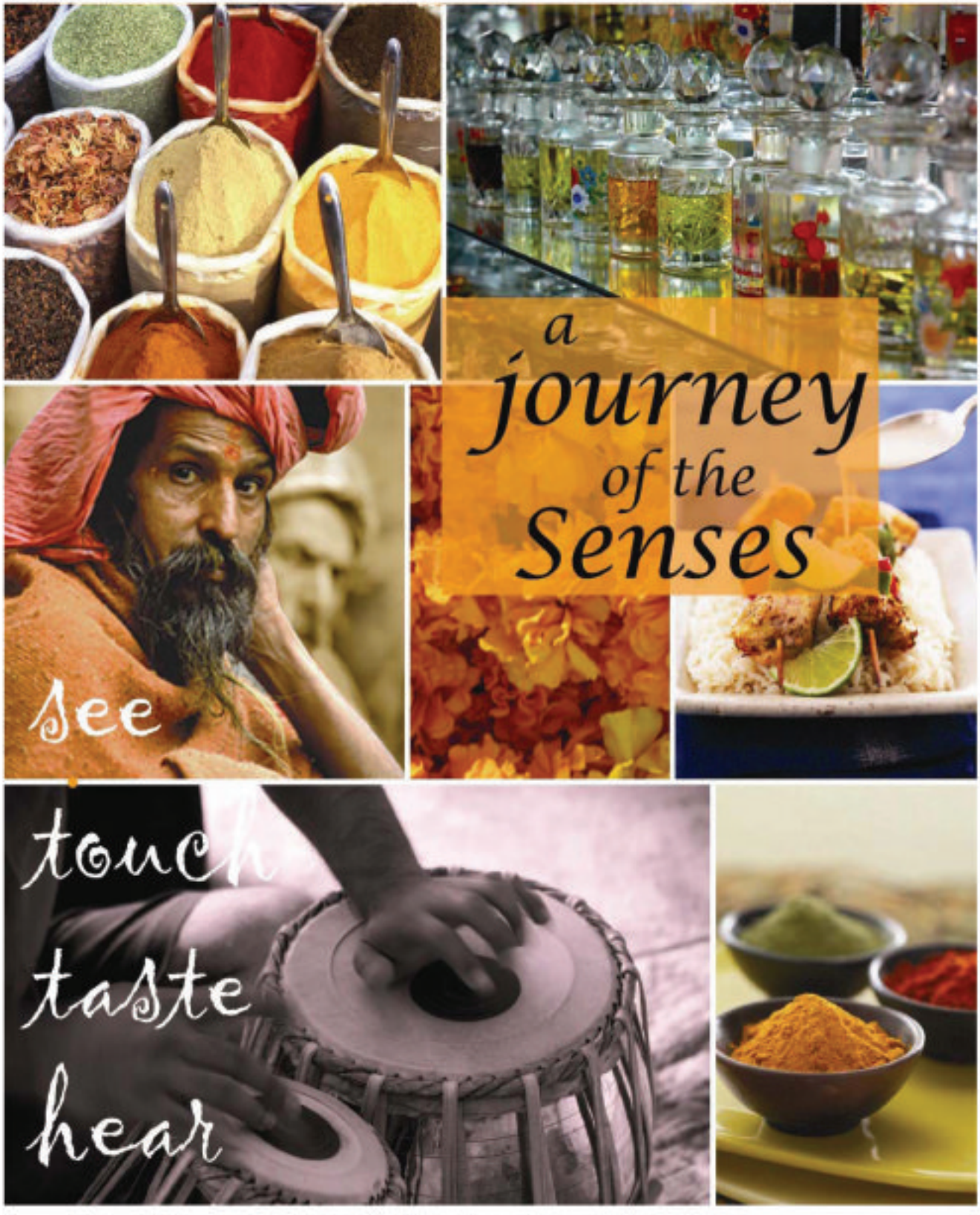


ifsht
International Federation of Societies for Hand Therapy

12th Triennial Congress of the IFSSH
&
9th Triennial Congress of the IFSHT

See you in New Delhi 4th – 8th March 2013

IFSSH& IFSHT
INDIA 2013

Congress Chairman
Dr. S. Raja Sabapathy

Website
www.ifssh-ifsht2013.com

Obituary:
Dr Ronald Linscheid, Rochester, USA

Dr Ronald Linscheid passed away on 10 June 10 2012, after suffering from Alzheimer's disease. He was an avid supporter of his family, his colleagues and patients in orthopaedics. He loved nothing more than seeing the elegant solving of a scientific or medical problem. Ron, with his wife Carol, raised six children with an unspoken emphasis on the importance of college education. He was a pilot, played tennis, golfed, skied, wind surfed and hiked the Himalayan mountains.

Dr Linscheid was born June 14, 1929 in Hutchinson, Kansas, USA, to Leo and Florene Linscheid. He graduated from Hutchinson High School and went on to attend Kansas State University, graduating cum laude with a B.S. Degree in 1951, and the honours of Phi Kappa Phi and the Blue Key. He went on to graduate from the University of Kansas School of Medicine, and then completed his internship at the University of Minnesota School of Medicine. He served two years in the USA Naval Medical Corps. In 1957 Dr Linscheid began residency training in the Department of Orthopaedics at the Mayo Clinic, Rochester.

Dr Linscheid was appointed to the Orthopaedic Surgical Staff of the Mayo Clinic in 1962. After an additional year of specialty surgical training in Los Angeles, California, he returned to the Mayo Clinic and helped developed the Section of Hand Surgery within the Department of Orthopaedics. Dr Linscheid continued practising until 1993. During the 31 years of surgical practice he climbed the academic ladder to become Professor of Orthopaedic Surgery, Mayo School of Medicine. He authored or co-authored 309 clinical and research peer reviewed publications. His colleagues awarded him the Distinguished Mayo Clinic Award.

Dr Linscheid was a member of many national and international orthopaedic societies and organisations. He also served as President of the American Society for Surgery of the Hand and the Association of Bone and Joint Surgeons. Active in research throughout his career, Dr Linscheid is recognised nationally and internationally for his insight and work on biomechanics of the wrist, kinetics related to the unstable wrist and functional anatomy of the hand. One of his keen interests was to understand the evolution of the wrist.

In 2001 he was honoured as 'Pioneer of Hand Surgery' by the IFSSH. During his distinguished career, friends, colleagues and patients have appreciated Dr Linscheid as an intelligent, dedicated and compassionate gentleman. To his family, he is remembered as an unselfish man who always asked what he could do for you, whether you were standing next to him or thousands of miles away. His dry sense of humour included writing limericks after orthopaedic hand fellows and residents finished their training. He was always there for them even after their training and continued to follow their careers.

** Acknowledgement is given for reproduction: Rochester MN PostBulletin 12June 2012*

Share Section

The Exco of the IFSSH receives occasional requests by individuals or Hand Surgery Units for donations or financial support to purchase instruments, books, and various equipment needed to practise their trade as fellow Hand Surgeons and Therapists.

Many of our members have surplus instruments and other such items which could be of use to those in less fortunate circumstances. The IFSSH ezine would like to dedicate a 'Share Section' in every issue to facilitate contact between those seeking support and those looking for recipients of their surplus.

If you have anything which another Surgeon or Therapist may use in her/his practice, please offer it by sending a short description of the item(s) to the Editor(ezine@ifssh.info), as well as a contact email address.

If you are in need of a specific item, you are also welcome to send a short email to the Editor with your request and a contact email address.

NB: The IFSSH ezine acts solely as contact agent, and does not take any responsibility for any exchanged goods. The actual exchange and arrangements are the full responsibility of the two parties involved.

Letters to the editor

A recently published article in the IFSSH ezine about pain management provoked two interesting responses from our readers, see below:

To: ezine@ifssh.info From: Ring, David C., M.D.
Subject: RE: IFSSH Ezine May issue

Dear editor,

I feel compelled to add to the discussion started by my friends and colleagues Drs. Mennen and Lalonde in the most recent IFSSH ezine. Pain is definitely an important and indispensable part of the human 'safety system'. Paul Brand's book "The Gift of Pain", based on his experience treating patients with Hansen disease, certainly makes this clear. On the other hand, the human safety system functions more like the smoke alarm in the kitchen—a well-functioning alarm will go off with grease or smoke alone.

Most alarms are false alarms.

Human illness behaviour is such that we tend to be over-protective and prepare for the worst in response to pain. That was almost certainly an evolutionary advantage. My sense of the best available evidence is that we risk reinforcing this maladaptive misinterpretation of nociception when we tell patients to 'work to pain, but not beyond'. The data are clear and consistent that pain intensity and disability correlate most strongly with catastrophic thinking in response to pain, more strongly than with any type of impairment or pathophysiology.

I agree that we should get rid of 'no pain, no gain', because it sends a message to patients that they should be ashamed of themselves if they find the exercises unsettling. But I do think an effective stretch is painful (think yoga, etc.) and healthy. This can be counterintuitive in the setting of recovery and our job is to help it to feel right. Telling patients to stop when they feel pain reinforces catastrophic thinking, pain avoidant behaviour, and our natural protectiveness and is likely to do more harm than good. A growing body of evidence suggests that effectively distinguishing the true alarms from the false alarms is an integral part of health and wellbeing.

David Ring, MD PhD *Massachusetts General Hospital*

Editor's Note: "Pain" is not a gift! The "Ability to feel pain", is a gift!

To: ezine@ifssh.info From: Dr. Don Lalonde
Subject: RE: IFSSH Ezine May issue

Dear Editor,

I thank you for considering my reply to Dr Ring's letter to the editor. My colleague hand therapist, Amanda Higgins, and I published part of our pain guided hand therapy in Ezine. Dr Ring has generated a thoughtful response which has many valid points.

We are also big fans of Paul Brand's "The Gift of Pain" and recommend it to our medical students and residents as important reading.

Our patients understand our acute post fracture protocol as it is very simple; "Don't do what hurts but don't 'baby' it. Don't be moving it if you are on ANY kind of analgesic as you don't know what hurts".

We only use this in the first 2-3 weeks after the injury for the acute phase of wound healing. Once the bones are really quite 'sticky' at 3-4 weeks for most non articular finger fractures, the pain argument goes away. We agree with Dr Ring that at this point the patients frequently need to push the fingers to beat stiffness, even if it hurts.

Kind regards,

Dr. Don Lalonde

Professor Surgery, Dalhousie University, Canada

IFSSH Presidential Report

Presented in Antwerp, Belgium at the IFSSH Delegates Council meeting

Since our last meeting in Las Vegas (September 2011) a number of progressive developments have taken place:

1. The Committee System has been overhauled with the valuable help of President-Elect Michael Tonkin. The new guidelines have been published in the IFSSH ezine and taken up in the IFSSH Guideline Book.

2. The IFSSH ezine continues to be popular with the Membership – many new subscriptions have been received. Committee reports are published as they are received, and then put on the IFSSH website.

However, we still face the challenge to convince the trade that advertising through this medium gives them exposure to more than 10 000 readers (direct and indirect mailing).

I am also concerned, that many National Society Delegates, Secretaries and /or Administrators who, as representatives of their Members, receive the IFSSH ezine, but do not honour their responsibility to forward the ezine to all their Members. We urge the Societies again, to forward the email addresses of all their Members to us so that we can distribute IFSSH information and the IFSSH ezine directly to them. This will save the Delegates much hassle. We will not use their email addresses for any other purpose at all!

3. The Educational Sponsorship Committee, chaired by Secretary-Elect Marc Garcia-Ellias, has been established. The guidelines have also been published and a number of requests have so far been received.

4. Historian Frank Burke has taken up the task to retrieve relevant material of historical interest from Alfred (Past-Secretary-General, Past President) and Genevieve Swanson. This is a major undertaking and I would like to thank him for his time and efforts. A decision still has to be taken regarding permanent housing of the archival material.

5. Administration: Belinda Smith has been very active and innovative

in streamlining and co-ordinating the activities of the IFSSH. This is a major step forward in the running the IFSSH on a more "professional" and ongoing basis. Centralising the activities makes the tasks of the Exco members, especially the newly elected, so much easier. I would like to thank Belinda for her hard work.

6. Past President Jim Urbaniak has been helpful on a number of occasions with his advice and wisdom. I wish to thank him for his continued input.

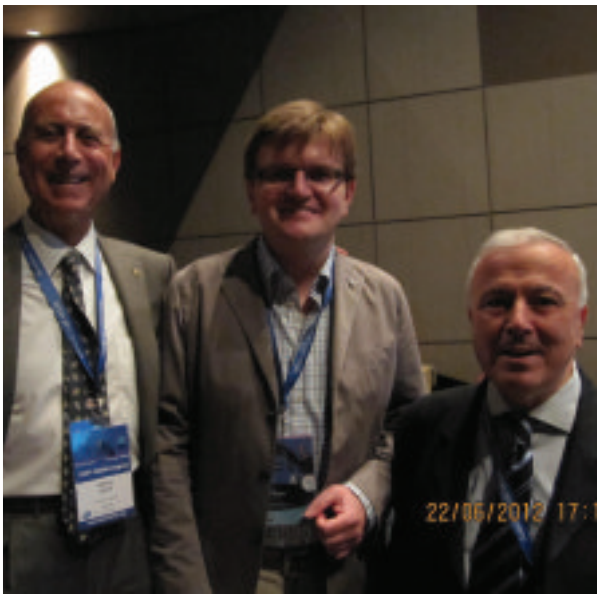
7. Secretary-General Zsolt Szabo has done sterling work in running the IFSSH administration. He has also been instrumental in initiating and organizing IFSSH Sponsored Workshops/ Instructional Courses. The first one was held in St. Petersburg, Russia, in September 2011, and the second is planned for September in Hungary. More information could be had from S-G Szabo. It is intended for Surgeons from adjoining Countries. Thanks Zsolt for your enthusiasm and interest to further the aims of the IFSSH.

8. Last, but not least! The delegates, representing their National Societies. The IFSSH is a voluntary organisation. Its effectiveness and success, its efforts and productivity depends on the enthusiasm and willingness of committed individuals. As the official representative of all the Members of your Society, a huge responsibility rests on your shoulders to be the link between your Membership and the IFSSH. I have alluded to the distribution of information above, ie information from the IFSSH to the Society Members. Equally important is the flow of information from your Society to the IFSSH and all its Members-at-large. Please place information of the activities and happenings of your Society on the IFSSH website (through the IFSSH Administration : Secretary@iffsh.info) . We would also be happy to advertise the same in the IFSSH ezine (ezine@ifssh.info)

With sincere regards

Ulrich Mennen

President: IFFSSH



Secretary General's Report

Since the IFSSH Council meetings in Las Vegas, September 2011, the activities of the IFSSH have been focused on the following priorities:

1. COMMUNICATION AND INFORMATION WITH MEMBER SOCIETIES

a. The most important tool in improving communication is the IFSSH ezine, edited by Ulrich Mennen, IFSSH President. The growing interest, active participation and valuable information provided by the ezine has demonstrated that it is a project which should be continued. Of course, even more active participation from IFSSH members and support from hand surgery trade companies is desirable.

b. The Newsletter written by the Secretary General and published in the JHS (American Volume) and Asian Pacific Hand Surgery is continuing to provide information focusing on some very important current matters of our Federation. New discussions are underway with JHS (European Volume) to include the IFSSH Newsletter in this journal too.

c. The IFSSH administrative secretary, Belinda Smith, is continuing her hard work to coordinate communication amongst ExCo members and Delegates, and providing important support to the Secretary General and President. Her activity deserves a great 'thank you' and congratulation from the ExCo and Delegates.

2. EDUCATION

The ExCo and Delegates have agreed that it is most effective and desirable to direct IFSSH funds towards education and improving knowledge. To work towards this, three major projects have been undertaken:

a. The 'Russian project' aimed to involve important communities from a remote part of the world who are not yet members of the IFSSH. The Russian Society for Hand Surgery has impressive traditions and values and a fantastic bank of knowledge and information. In our effort to involve them in the IFSSH 'network', the first stage of the communication was the visit of the IFSSH President and Secretary General to a cadaver hand surgery course in Saint Petersburg. At this course, the IFSSH officers delivered scientific lectures and practical demonstrations and also provided detailed information about the importance of the Russian Society's involvement in the IFSSH. We were impressed by the fantastic possibilities, knowledge and great results of our Russian friends. We hope that this educational, scientific and informative collaboration has opened a door which, in spite of the language barrier, will make a joint venture possible in our IFSSH community. Further projects and plans with other regions and societies (e.g. China) should follow.

b. The 'regional education project' presented and accepted in Las Vegas will start this year, involving the Eastern European region in September. FESSH, whose members understand the importance of this IFSSH project, are collaborating and co-sponsoring this course entitled 'Highlights in Hand Surgery' with a day of cadaver workshops: 'Masters at work'. IFSSH ExCo and FESSH officers, along with more than 12 faculty members, will deliver lectures, lead interactive discussions and demonstrate operations on cadavers. With the generous support from the trade industry we will be able to invite 50+ hand surgeons from less economically advantageous countries for free (course attendance, hotel and catering inclusive). The nomination and selection of these participants will be a duty of their individual national societies. A detailed invitation with all necessary information will be sent to all IFSSH delegates. We strongly

Zsolt Szabo, Secretary General, IFSSH June 2012,

encourage the continuation of this project in other less developed regions, possibly in collaboration with regional federations, for the benefit of hand surgeons who cannot afford the cost of other courses.

c. In order to encourage, improve and coordinate requests for financial support, sponsorship, grants and bursaries, and to exclude subjectivity of the decisions, the Committee for Educational Sponsorship (CES) was founded. This Committee is chaired by the Secretary-General Elect, Marc Garcia-Elias. This is the first year of CES activity and the outcomes of grant applications will be discussed at the IFSSH Council Meetings in Antwerp.

3. FINANCES

After our 2011 Delegates' Council Meeting an important alteration was applied to the membership fees for the 'big member societies'. This appears to be operating smoothly and, based on the current financial status, the IFSSH can afford to institute this kind of gesture towards the societies who are the greatest contributors to the treasury of IFSSH.

4. SCIENTIFIC ACTIVITY

The scientific activity, directed by the ExCo over the past year, has included two main items:

a. The IFSSH Scientific Committee system has been reorganized, under the guidance of Ulrich Mennen (President) and Michael Tonkin (President-Elect). This has been an 'unsolved problem' of the IFSSH, and hopefully this new approach with intense activity will result in advances in the sharing of IFSSH scientific knowledge. More detailed information will be presented in the President's Report.

b. The 2013 IFSSH Triennial Congress preparations are underway, organized by the Indian Society for Surgery of the Hand. This Congress will be held in March in New Delhi. Raja Sabapathy and his team are busy working with local professionals to organize one of the most memorable congresses in IFSSH history. The Secretary General visited the facilities in March 2012 and observed the preparations. Important decisions were made regarding the venue, scientific and social programs, accommodation and catering. A detailed report of this visit will be published in the July 2012 Newsletter and in an upcoming issue of the ezine (http://ifssh.info/ezine.html). After experiencing the preparations, we are convinced that the 2013 IFSSH Congress is a 'must' all hand surgeons and therapists to attend.

Last, but not least, I would like to thank all of the IFSSH Delegates who actively participate and support us in our effort to improve democracy, transparency and better communication for the benefit of our members and, therefore, for the benefit of our patients.

Yours sincerely,

Zsolt Szabo

Secretary General, IFSSH June 2012, Antwerp, Belgium

Dupuytren resurrected

IFSSH Committee on Dupuytren's Contracture:
DA McGrouther (Manchester) and MN Werker (Groningen)

After many quiet years the whole subject of Dupuytren's Contracture has come to life with the publication and licensing of collagenase clostridium histolyticum (Xiaplex in USA, Xiapex in UK) as a minimally invasive treatment for this curious condition. This innovative approach has driven a reappraisal of what we know about Dupuytren's Disease and how we treat it. This has been evident by the publication of a number of new textbooks and sessions devoted to the topic at several National Society Meetings. A particular significance of this new treatment is the fact that after 20 years of thorough painstaking research, the team of surgeon Larry Hurst and scientist Marie Badalamente has achieved the holy grail of current grant funding strategies and made the transition from bench to bedside for collagenase.

We will return to this later but let us review what we know about the curious 'Maladie de Dupuytren' because it is one of the best examples of misquotation of scientific literature in medical practice. Ask any medical student for the cause of Dupuytren's Disease (DD) and the likely answer will be 'alcohol', which emphasises how medical texts oversimplify and pass down information without new research. The role of alcohol was brought to prominence by its finding in a relatively small cohort of patients with alcoholic liver cirrhosis. Some larger epidemiological studies, but not all, have found a statistical relationship with alcohol consumption but many patients are teetotal and can be offended by the suggestion. This is just one example of scholastic imprecision: many 'facts' being passed down from text to text. Almost every article on Dupuytren's quotes something of the history without bibliographic research and myths about Baron Dupuytren are perpetuated. The best historical review is contained within the literature by David Elliot who hunted down the original publications and enlisted language scholars to verify the accuracy of the translations. These articles (editors please note) are all that need to be cited in terms of history.

Historically there have been many inaccuracies in the epidemiology such as 19th Century reports that it was not found in women, and 20th Century statements that it was not found in African or Asian ethnic groups, where it is much less common but not unknown. In reviewing the epidemiological evidence there are wildly different estimates of prevalence in different population groups and perhaps the most significant variable is not the disease incidence but the criteria for diagnosis. Whereas it is easy to diagnose a patient referred with nodules, cords and digital contractures, it is much harder on population studies to know whether to include patients with prominent fascial bands, skin pits, thick calloused skin, congenital and posttraumatic joint contractures. This was illustrated by Jonathan Noble, a hand surgeon who found that 42% of patients with




signs of DD in a study group in which a rheumatologist had noted 18%.

There is no diagnostic test and the minor clinical signs are all debatable. And the apparent high incidence in Nordic countries may be due to the fact that these countries have highly developed health care systems which undertake many epidemiological studies of all types. In much of the world the incidence is unknown, other than by hand surgeons' impressions.

Tor Skoog in his extensive thesis of 1948 showed how the search for a simple cause and effect relationship with some precipitating factor mapped out a history of fashionable medical diagnoses in the 19th Century. Dupuytren himself suggested a link to chronic trauma or injury and this was followed by syphilis, tuberculosis, chronic pulmonary disease, sepsis in the palm and arteriosclerosis. These suggestions have been followed by the 20th Century plagues of alcohol, smoking, connective tissue disease and HIV. What seems clear is that there is no simple cause and effect relationship. John Hueston coined the term 'diathesis' joining together family history, age and morphological features, knuckle pads, Ledderhose's disease, bilaterality, to indicate a more rapidly progressive or extensive condition. The relevance of this to management is controversial, with some authorities advocating a different choice of treatment option, but without outcome measures to justify this.

Recently the apparent family and ethnic associations have been given factual support by a New England Journal of Medicine paper identifying snips (SNP's, single nucleotide polymorphisms, effectively mutations) many of which are linked to WNT- genes, known to be cellular signaling molecules involved in cell proliferation. Identification of the cellular mechanisms may point the way to other treatment strategies for this and other fibrotic diseases. After all, Dupuytren's is just one of a whole constellation of diseases affecting connective tissue structure, with quite individual clinical pictures and little

if any cross over; scleroderma, keloid, pulmonary fibrosis to name a few.

Surgical intervention

Up to the present time, the mainstay of treatment for Dupuytren's Contracture has been surgery, but every surgeon has a different approach to the optimum timing. Interestingly, a detailed study undertaken by Robert McFarlane reviewing the outcome of 1000 operations by experienced surgeons showed that surgery on the little finger for a contraction of < 30 degrees was as likely to make the contracture worse than better.

All sorts of surgical interventions have been performed since Dupuytren's original simple fascial division, now termed 'open fasciotomy'. Interestingly this was done with the patient sitting in a chair, with the hand elevated, a position in which the arm can be easily restrained from withdrawal (D's operation preceded the development of anaesthesia). The huge variation in surgical approaches can be classified in three ways as to procedures on the skin, fascia and PIP joint. Patterns of skin incisions are numbered in hundreds with all varieties of serpiginous shapes. Perhaps the most popular are those of Bruner or a straight line incision with Z plasties.

Skin may be replaced by grafting or occasional flaps and after operation can be closed or left open, credit for the latter being usually given to McCash, although Dupuytren did this first. The management of the fascial contracture depends on the surgeon's philosophy as to whether the disease should be excised completely (the benefits of which are not supported by evidence) or whether the aim is to control the biology of the disease by release of contracture and of tissue tension, a practice for which there is at least in vitro experimental evidence.

A common practice has been to isolate the neurovascular bundles in the mid palm and excise all overlying diseased fascia while dissecting distally, described by Hueston as limited fasciectomy. This is only 'limited' in comparison with the radical resection performed at earlier times in the UK and currently still done by many surgeons in central Europe. Skoog encouraged the retention of the transverse fibres of the palmar aponeurosis (selective aponeurectomy) and many even more limited operations have now been described. There is a tendency now for therapy to veer in two directions, with a more minimal procedure for a contracture at the 'easy' end of the spectrum and a more radical dermofasciectomy at the 'difficult' end. This loose description of severity underlines the difficulty in classifying the features in the hand in a way which would inform clinical trials. Nodules and cords can be identified with some imprecision by external examination but hands are generally classified by the degree of preoperative joint contracture, which is largely dependent on the time at which the patient presents for treatment. There have been randomised studies comparing operations but not in multiple centres and we cannot be sure if the disease has the same characteristics in different regions, or given the lack of agreed diagnostic criteria referred to earlier, the case selections may be different in different centres, let alone facilities and practices for rehabilitation.

Although surgical intervention has been the mainstay of management, more recently needle fasciotomy has been introduced as a 'minimally invasive' alternative. This has been controversial as the concept of moving a sharp implement into the hand and moving it about seems intuitively dangerous to surgeons. Its strongest advocates report less damage than might be anticipated although a survey of hand surgeons in France has suggested that the incidence of nerve damage and tendon ruptures is higher than the series published by experts. The hand surgery community believes that this is not a procedure for general use, but it is appropriate for the patient to be assessed by a clinician who can offer the whole range of different treatments depending on the morphology of the contracture. The hand is anatomically a closely packed structure and the keynote studies by Robert McFarlane have demonstrated how contracting spiral cords can displace neurovascular structures, particularly in the proximal segments of the digits, making them vulnerable to injury.

The possibility of a simpler treatment than fasciectomy however has been eagerly sought by patients, and by healthcare funders. Surgeons vary in their use of needle fasciotomy ranging from not at all, to selectively (prominent palmar bands) to more general application. It has been the use in the fingers which is most

controversial because of the possibility of the nerve spiralling around a cord and therefore being vulnerable to injury. Performing the procedure with local anaesthesia of the skin alone, (or none at all) however gives remarkable protection to the nerve and nerve injury - if properly performed - is rare. The exact way in which the end of the needle is applied to the cord (stabbing or pendulum back and forth motion) will alter the ease of cord division, and possibly the likelihood of collateral damage but such variations depend on individual preference rather than scientific objectivity. There is also debate about steroid injection in addition to cord release.

"The team of surgeon Larry Hurst and scientist Marie Badalamente has achieved the holy grail of current grant funding strategies and made the transition from bench to bedside for collagenase"

Alternative solutions

And so to the new collagenase therapy. Had the world's politicians and medical economists embraced the new treatment, and its cost, it would just have dropped neatly in to the hand surgeons' armamentarium. But in these financially constrained times it is necessary to show a cost benefit analysis, the development of which has highlighted the lack of comparative evidence for all Dupuytren's treatments in the areas of both cost and benefit. Hand surgeons have been happy to apply their own version of surgical treatment on the basis of a belief in the obvious short term outcomes. The lack of significant numbers of randomised trials has led to the UK National Health Service placing Dupuytren's surgery on a list of procedures of 'Limited Clinical Value', interestingly alongside Inguinal Hernia repair, with instructions that funding should not be prioritised for treatments lacking an evidence basis established through trials. The challenge is to show benefit for treatment through randomised controlled trials and relative benefit for the various modalities. This challenge is made all the more difficult by a lack of agreement on measures of recurrence, there being different criteria in 49 different publications depending upon recurrence of cords or nodules, loss of extension range or a miscellaneous group of largely subjective or patient reported outcomes.

Many of the surgical debates may however be dwarfed by the introduction of collagenase which has a rather different methodology of action by producing a pharmacological break in contracted cords. The technique is that a needle is inserted into a cord as a means of injecting the active agent rather than depending on the needle's use as a cutting tool. The exact injection protocol is tightly defined, and the commercial supplier has provided training in technique. The drug is injected directly into a palpable cord at three sites, and presently only one linear or Y shaped cord is treated, although further trials may change this ruling. The injection is performed without anaesthesia to minimise the potential of injecting into a nerve, and it is important to avoid injection into a tendon or tendon sheath. The patient returns at 24-48 hours, local anaesthetic is administered and the treated digit is manipulated extending one joint at a time. There is a 11% incidence of skin ruptures or blood blisters but these heal rapidly with simple dressing. Good early results

have been reported in clinical trials especially in the treatment of MCPJ-contractures and long term benefits are awaited. Treatment is aimed at releasing cords and nodules are not treated.

With the understanding that there are definable genetic mutations in this 'Maladie', it is apparent that the surgeon can treat Dupuytren's Contracture but not Dupuytren's Disease. It should therefore not be a surprise that the 'Disease' will recur. This is a traditional but false concept which has conditioned surgical thinking and led to vague definitions of recurrence as contracture or 'disease' in the operated area, versus extension as disease outwith the operated area. It is no surprise that published recurrence rates vary from 0 to 100%. Such recurrence concepts are mentally rooted in cancer biology and are not appropriate for Dupuytren's, as the entire palmar fascial continuum has the potential when appropriately triggered to become diseased and there is a lack of evidence for the benefit of radical excision of diseased tissue. This brings us to the operation of dermofasciectomy which is generally described as a radical operation. It is certainly radical in the treated area removing skin, fascia and fat; it should probably be termed dermolipofasciectomy when properly performed, but it is not radical in the sense of resection of all Dupuytren's tissue, often leaving behind disease proximal and distal to the treated area. What this operation, as currently performed, seeks to do is to remove the tissue planes and palmar fascial ligamentous components in which contracture tissue propagates.

"Many of the surgical debates may however be dwarfed by the introduction of collagenase which has a rather different methodology of action by producing a pharmacological break in contracted cords"

The action may be by prevention of the tension lines which develop in the genesis of joint contracture. Done in this way it has in some but not all studies the lowest return of joint contracture of all current operations. By contrast the insertion of a 'firebreak' skin graft without radical resection of the underlying fascial structures will not prevent the propagation of 'fire'. Although dermo(lipo)fasciectomy is branded as a radical operation, it holds little terror for the surgeon routinely performing skin grafts and if done as a primary procedure, the areolar tissue around nerves and vessels is preserved making resection much simpler than in the case of the heavily scarred recurrence.

Long term strategies

What seems to be needed in treating Dupuytren's is a different mindset. Our understanding of the pathology of the disease is a mixture of surgical intuition and a few laboratory observations. Luck's description of nodules and cords has generally been understood to suggest that the nodule is the active region of the disease applying traction on normal palmar fascial ligaments which become contracted cords. The essential cell, the myofibroblast, beautifully described by Gabbiani, seems to be responsible for the contraction process. We now understand that not only can fibroblasts be transformed to myofibroblasts but the process is reversible and tension seems to be required for the maintenance of the myofibroblast morphology. And not only tension, but a particular level of

tension as Messina has shown that Dupuytren's tissue can be elongated by an external traction system.
It seems that contracture can be relieved by relief of tissue tension either through the traditional excision methods, by minimally invasive procedures, or alternatively by strong traction. Immediate recurrence can be prevented by preventing the linear continuity of the Dupuytren's tissue. Longer term recurrence can be prevented by preventing the re-establishment of tension in the palmar fascial structures.

It is clear from the internet that the patient wants a simpler treatment with less 'down time', and if this can be delivered by minimally invasive treatments without complications, with an acceptable contracture-free-interval, and with no detriment to later surgery should this be necessary, then this is the way to go. Much more data is needed to define the principles of minimally invasive approaches, and to collect this data we need to establish better and standardised outcome measures. The starting point for this is to agree diagnostic and descriptive criteria.

Although seemingly straightforward, the diagnosis of Dupuytren's can be debatable as there are no tests or uncontroversial clinical signs. The nodule was described by McFarlane as the pathognomonic diagnostic feature, but there are several types of nodules and their absence does not preclude the diagnosis. In patients presenting for treatment it seems important to map out the three components which will be the focus of treatment: nodules, cords and in particular individual joint angles of contracture. As these are the three components which will be treated, the immediate result can be judged by the presence or absence of cords or nodules and the release of however many angles of joint contracture. The longer term result should be measured by disease-free interval – either quantifying how much joint contracture exists at a fixed point in time, or alternatively measuring how long it takes for the contracture to reach the preoperative state.

What we now need are clinical trials of different treatments. But before these can have credibility, there is a need to obtain general agreement on diagnostic criteria and classification of disease. Tubiana has produced the most generally applicable classification, but it may be better to focus on the exact lesions to be treated rather than to consider the hand overall. In addition the concept of 'recurrence' needs to be shifted towards disease-free interval with the adoption of criteria allowing comparison of length of benefit of different treatments for relief of joint contracture. Trials then need to take in to account different disease severity, which may be different in different geographic regions. Procedures of both intervention and of rehabilitation need to be standardised. It is possible that currently the variations in contracture morphology, skin incision, fascial dissection, PIP joint management and rehabilitation may mean that no two patients have ever had exactly the same treatment!

Meanwhile the choice of treatment is based on individual experience and it seems appropriate that the patient should benefit from consideration of all the options available, with selection dependent upon the variables of the hand, the contracture and the patient

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Suggestions for further reading

Dupuytren's Disease and Related Hyperproliferative Disorders: Principles, Research, and Clinical Perspectives. Eaton, C, Editor 2012, Springer ISBN-10:3642226965

Dupuytren's Disease. Tubiana R, Leclerq C, Hurst LC, Badalamente MA, Mackin EJ, 2000, Martin Dunitz, London. ISBN 1-85317-475-0

Dupuytren's Disease. McFarlane RM, McGrouther DA, Flint MH, 1990, Churchill Livingstone, Edinburgh ISBN 0 443 03818

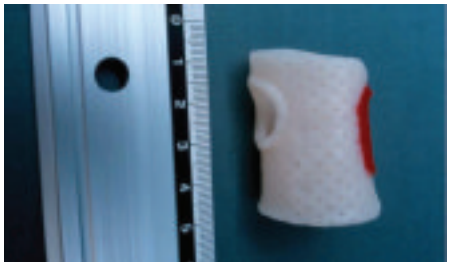
Splinting a child's hand

By **Margareta Persson** and **Griet van Veldhoven**

This article will focus on orthotic devices for the pediatric hand. We will share some general principles for orthoses for the pediatric hand and also give examples and tips of orthoses we have found useful in our clinical work with children.

This is a topic which is rarely discussed in books and articles. Even for experienced hand therapists who are used to make hand orthoses for adults, it can be a challenge to make an orthosis for a child. It's not enough just to copy the pattern of an orthosis made for an adult hand, decrease the size and give it nice colours and decorations. To make orthotics for a child's hand often demands another approach. Why?

- The size can be a challenge. Therefore other techniques and materials might be necessary (Figure 1).



- The child's skin is more sensitive both to temperature and tactile input.
- A child just does not always able to sit quietly while the therapist fits a splint, which limits the type of thermoplastics that can be used.
- The proportions of the hand are different to those in an adult hand, patterns have to be revised.
- Co-operation regarding the use of orthoses is largely dependent on the caregivers of the child.
- The child requires other ways of communication and will need a longer introduction before one can start the fabrication of the orthosis.
- Some children just don't want to use their orthosis and will try to take it off. Some of them are real 'Houdinis' and these require creative solutions to make sure the orthosis stays on.
- The child is in continuous growth and psycho-motor development. Therefore the orthoses need continuous adaption and adjustment. Orthoses should not only be made with respect to the anatomy and pathology, but also take into consideration what developmental level the child is at.

The parents are key persons in ensuring that the orthosis is worn and used as prescribed. They need to be involved in the process and treatment with the orthosis from the beginning. Some parents are anxious, some are uncertain and some are negative when they come for the orthosis fitting. Most of them don't know what is going to happen with their child. They need a thorough explanation about what is going to be done and how it is going to be done. A good idea is to show an orthosis in adult size and to let the parents try it on. It can help them to overcome these negative feelings and attitudes.

Written information about the orthosis, the wearing schedule and the exercises is an important aspect of correct orthosis use. During the consultation the parents hear a lot of information. At the same time they have to pay attention to and look after their child. Our experience is that a lot of information given during this stage of treatment is not getting through to the parents. If they are well informed about the process, their understanding will calm and relax the child. When the orthosis is made, most parents appreciate it if they can be involved. This establishes a close working relationship between therapist and parent, but also between the parent and the orthosis.

Once the orthosis has been completed, it is recommended that the parents are shown how to put the orthosis on and take it off again. Let them practice this before they leave the clinic as it will prevent incorrect fitting of the orthosis. If necessary, a picture or/and colour-coded straps will assist in ensuring correct fitting of the orthosis.

Children need to be involved in the splinting process in different ways, depending on their age and the mental development. It's important to make the child as comfortable and least fearful as possible, as this will make the child more co-operative.

Strategies include:

- Asking the child to decide where in the workshop the orthosis should be made
- Making an orthosis on a doll (Figure 2) or on either parent can make the child less fearful

- Letting the child play with a piece of the thermoplastic material and make a small orthosis him/herself.

Although this will take some extra time, our experience is that the time is well invested, as the child will be more cooperative, ensuring a better fitting orthosis. It is tricky to mould an orthosis on the hand of a squirming child. Many of these orthoses often have to be remoulded.

We normally don't wear a white hospital coat while working with children, as this can recall scary memories from the hospital world and increase their fear. On the contrary, we sometimes put on a funny hat or jacket while we make the splints. Many children have bad memories from occasions when they had to be held in a locked position by their parents. We try to avoid this situation at all costs and try to remain flexible while we make the orthosis. Sometimes we move with the child while we mould the material, without them noticing. If the material is wrapped on the forearm or base of the hand with Theraband or a crepe bandage, we are free to move with the hand (the child) while we mould the hand part of the orthosis.

If possible, let the child choose the colour of the thermoplastic material, straps and padding. Some orthoses can even be decorated. Singing a song or telling a story while making the orthosis can distract the child from fear or general protest. Both authors have made orthoses while the child was asleep. For us as splint makers, this is the most convenient time.

For some children it is important that they participate in putting the orthosis on and taking it off. This can give the child a feeling of ownership of the orthosis. For other children it is important that we don't show them how to take off the orthosis, as they will easily copy this and take the orthosis off by themselves. The child may need some distraction when this is done. Tape, Coban, Co-plus or similar products can be used to secure the straps for the real 'Houdinis'.

The workshop where the orthoses are made may also need some adjustments in order to be safe for the child. The hot water pan and heat gun (cables) need to be out of reach and out of sight. In addition any scissors, knives need to be out of reach. Machines like heat guns and hot water pans should make as little noise as possible.

Some practical tips in making orthotics for the child:

- When making a palmar/volar orthosis, use a wide and soft band across the wrist and dorsum of the hand.
- When using thermoplastic, choose a material with many small holes, max perforated and use a microfiber stockinet, fleece or terry cloth 'madras' to create an airway between the skin and the orthosis.
- If possible give the child two orthoses, so that one can be washed while the other is used.
- Be aware of the type of straps you use. There is a big difference between the different brands. Choose those with soft edges which can be cut without fraying.
- If sticky thermoplastic material is used, Theraband stored in the fridge can be used to wrap the orthosis to keep it in place when the orthosis is moulded on the hand.
- The use of Theraband out of the freezer wrapped around the thermoplastic while molding on the forearm, can help the plastic cool extra fast.

"It's not enough just to copy the pattern of an orthosis made for an adult hand, decrease the size and give it nice colours and decorations."

- Thermoplastic and straps in bright colours, stickers glow in the dark or with popular figures can help to make the orthosis more user-friendly. We do our best to make their orthosis special to them and to make them feel fortunate have one. It is great to hear a child refers to the orthosis as 'my night buddy'.
- If the orthosis will be used for a longer period, make different orthoses for day and night use. None of us want to have our pyjamas on during the day. This also makes it possible to wash the orthosis on a daily basis.
- Low profile 'Velcro' microfix is good for the smallest orthoses.

Here are some examples of orthoses which are often made by the authors:

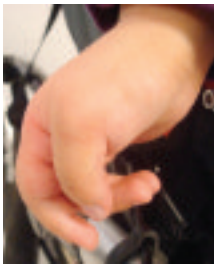
Figure 3

Flexible off- the- shelf wrist-thumb orthosis. The standard palmar reinforcement is replaced by a custom made reinforcement, on the outside of the orthosis, which gives more support to the thumb.

Figure 4

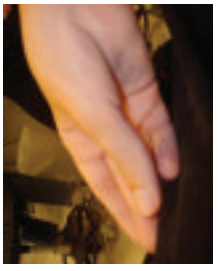
Pre-made flexible wrist orthoses with removable palmar finger cylinder made of pipe insulation material and covered with fabric.

Figure 5a ***Figure 5b***



Night orthosis to position the thumb in abduction and extension. Made of 2 mm neoprene, a double layer of neoprene is glued in the first web space.

Figure 6a ***Figure 6b***



A thumb wrap made of Fabrifoam© to position the thumb in palmar abduction. Due to the flexible material, the 14 year old boy is able to use his mobile phone. A thumb abduction orthosis made from rigid material, would hinder this important activity.

Figure 7

Night orthosis with straps made of Fabrifoam©. This high friction material will keep the hand in place and prevent gliding.

Figure 8a ***Figure 8b***

Camptodactyly: Night orthosis, straps made of Fabrifoam©.

Figure 9

Camptodactyly: Day orthosis.

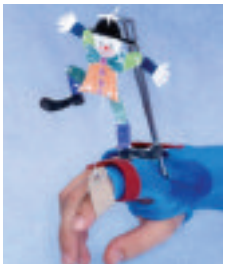
Figure 10a ***Figure 10b***

Arthrogryphosis: Day orthosis made of Fabrifoam© and night orthosis made of Turbocast - the thermoplastic material that doesn't stick to other materials or to itself if not moulded or pressed together. This material can be dry heated, which helps when some parts cannot be heated with hot water.

Figure 11a **Figure 11b**

Delta phalange orthosis made of Orfit. The orthosis is just 2 cm long, so there is a risk that the child swallows it. Therefore it is attached to a strap made of Fabrifoam©, which is secured around the wrist.

Figure 12a **Figure 12b**



Exercise orthosis: Flexion of the finger makes the doll move.

Figure 13a **Figure13b**

Figure 14a **Figure 14b**

Postoperative orthosis for a radial clubhand.

Figure 15

Exercise orthosis: this Velcro rabbit on the tip of the finger can 'eat' the counterpart of the Velcro in the palm of the hand.

About the authors

Margareta Persson is a Hand Therapist in Sweden and Griet van Veldhoven is a Hand Therapist in Norway. Both authors have more than 25 years' experience in making orthotics for children. This article is based on their broad clinical experience and on their knowledge of recent scientific literature on this topic.

Resource literature:

- *Autti-Rämö I, Suoranta J, Antilla H, Malmivaara A, Mäkelä M. Effectiveness of upper and lower limb casting and orthoses in children with cerebral palsy: An overview of review articles. American journal of physical medicine & rehabilitation. [review]. 2006;85(1):89-103.*
- *Burtner PA, Poole JL, Torres T, Manhke Medora A, Abeyta R, Keene J, et al. Effect of wrist hand orthoses on grip, pinch, manual dexterity, and muscle activation in children with spastic hemiplegia: A preliminary study. Journal of hand therapy. 2008;21(1):36-42.*
- *Casey CA, Kratz EJ. Soft splinting with Neoprene: The Thumb Abduction Supinator splint. The American Journal of Occupational Therapy. 1988;42(6):395-8.*
- *Coppard B, Lohman H. Introduction to splinting. 2nd ed. St.Louis: Mosby; 2001.*
- *Fess E, Gettle K, Philips C, Janson JR. Hand and upper extremity splinting; Principles and methods. third ed. St.Louis: Elsevier Mosby; 2005.*
- *Goodman G, Bazyk S. The effects of a short thumb opponens splints on hand function in cerebral palsy: a single-subject study. The American Journal of Occupational Therapy. 1991;45(8):727-31.*
- *Hsu JD, Michael JW, Fisk JR, editors. AAOS Atlas of Orthoses and Assistive Devices2008.*
- *Jacobs M, Austin N, editors. Splinting the hand and upper extremity; principles and process. Baltimore: Lippincott Williams & Wilkins; 2003.*
- *Langlois S, Pederson L, JR MK. The effects of splinting on the spastic hemiplegic hand: Report of a feasability study. Canadian Journal of Occupational Therapy. 1991;56(1):17-23.*
- *Lin S-C, Huang H-Y, C-J. L, Chiu H-Y. A simple splinting method for correction of supple congenital clasped thumbs in infants. Journal of Hand Surgery. 1999;24:612-4.*
- *Lusardi M, Nielsen C, editors. Orthotics and prosthetics in rehabilitation. St.Louis: Saunders Elsevier; 2007.*
- *Mackay S, Wallen M. Re-examining the effects of the soft splints on acute hypertonicity at the elbow. Australian Occupational TherapyJournal. [single system design]. 1996;43:51-9.*
- *McKee P, Morgan L. Orthotics in rehabilitation; Splinting the hand and body: F.A. Davis Company; 2008.*
- *Morris C, Dias L. Paediatric orthotics: orthotic management of children: Mac Keith Press; 2007.*
- *Østensjø S, Øien I, Fallang B. Goal-oriented rehabilitation of preschoolers with cerebral palsy—a multi-case study of combined use of the Canadian Occupational Performance Measure (COPM) and the Goal Attainment Scaling (GAS). Developmental Neurorehabilitation. 2008;11(4):252-9.*
- *Reid DT. A survey of Canadian occupational therapists' use of hand orthoses for children with neuromuscular dysfunction. Canadian Journal of Occupational Therapy. [survey]. 1992;59(1):16-27*
- *Van Lede P, van Veldhoven G. Therapeutical handorthoses, a rational approach volume 2: practical applications. Antwerp: Provan; 2006.*
- *Wilton J. Hand splinting, principles of design and fabrication: WB Saunders Company Ltd; 1997*

Pioneers in Hand Surgery

IFSSH pioneer profile

Sir Benjamin Rank

Benjamin Rank was born in Heidelberg, Melbourne in 1911, educated at Scotch College and graduated in Medicine from the University of Melbourne in 1934. After initial experience as a Resident at the Royal Melbourne Hospital in 1935-36, he travelled to England for surgical training in the new and challenging speciality of plastic and facio-maxillary surgery. In 1940, he enlisted in the Army, and in 1941, was sent to Egypt to establish a plastic and facio-maxillary surgical unit at the 2nd Australian General Hospital.

In 1942, he returned to Melbourne to set up a similar unit at the Heidelberg Military Hospital. In 1946, he was appointed Honorary Plastic Surgeon in charge of the newly established Plastic and Facio-maxillary Unit at the Royal Melbourne Hospital, a position he held until 1966. In addition, he was the Foundation Chairman to the hospital's Board of Post-Graduate Medical Education from 1968-75; Medical Advisor on Policy and Development to the Board of Management from 1971-76; a member of the hospital's Board of Management from 1976-82; and Foundation Chairman of The Royal Melbourne Hospital Archives Committee from 1979-87. In this latter role, he, together with former Chief Executive Len Swinden and Clinical Photographer Arthur Wigley, was instrumental in the creation of the original Historical Room.

In 1963, he established the Victorian Plastic Surgery Unit at the Preston and Northcote Community Hospital. From 1955, Rank was a Councillor of the Royal Australasian College of Surgeons and was its President in 1966-1968. In 1958, he was appointed Sims Commonwealth Professor of Surgery and in 1965 he became the only overseas President of the British Association of Plastic Surgeons. Rank was made a Companion of the Order of St. Michael and St. George in 1955 for his work in training Asian surgeons under the Colombo Plan, was knighted by the Queen in 1972, and made a Knight Commander of the Order of St. John in 1988. In 1984, he was instrumental in the establishment of Interplast, a partnership between Rotary clubs in Australia and the Royal Australasian College of Surgeons offering plastic surgical expertise and training to South Pacific and Asian nations. Sir Benjamin Rank is regarded as one of the pioneers of plastic and reconstructive surgery in Australia. He died in 2002.

Sources: Alan Gregory: The Ever Open Door: A History of The Royal Melbourne Hospital, Hyland House, 1998; Obituary in Chiron, Volume 4, Number 5, June 2002; RMH Archives.

IFSSH Pioneer profile

Graham Stack

H. Graham Stack came from Bristol where his father was an eye surgeon. He gained a scholarship from Clifton to Bristol University where he studied Physics and Chemistry before starting medical training at St Bartholomew's Hospital (Barts).

The turning point in his career came in 1955. He had returned from America the previous year where he had studied hand surgery. Intent on pursuing this interest he found the only available outlet in this country closed to him. He resolved to start an alternative group and wrote to several interested surgeons of his own seniority; thus was born the Second Hand Club. With single mindedness of purpose he was secretary and treasurer, he recorded the proceedings and circulated the members.

With his wife Lorna's devoted help he organised twice yearly meetings at home and abroad. It is impossible to overstate the enormous amount of work which Lorna put in all sorts of ways to make the club and later the society a success. She and her husband must for years have been the best customers of the Bonnington Hotel near the Royal College of Surgeons. From the outset most orthopaedic and plastic surgeons with a major interest in the hand joined the club and so started that fruitful co-operation between the two specialties which grew into the British Society for Surgery of the Hand, collecting on the way anatomists, rheumatologists and specialists in rehabilitation who could lend their expertise to this fascinating and intricate field of surgery.

This initial vision has finally taken practical form in the recognition of the principle of inter-specialty training. The Second Hand Club was remarkable for something else. Within a few years it had attracted hand surgeons worldwide and especially from the countries of Europe, who were regular attenders at its meetings. International federations of surgery may be the talk of today but in hand surgery it was a subject of the 1960s. He was the second secretary of the International Federation of Societies for Surgery of the Hand in 1972, president in 1978 and was recognised as one of the pioneers at a ceremony in Tokyo in 1986. Supported by sympathetic publishers, the proceedings of the Second Hand Club grew into a specialist journal, 'The Hand'. Graham's role as editor, production manager and supervisor of the printing is part of the folk-lore the British Society and continued until the journal's very success forced an expansion of its staff culminating in affiliation with the American Society to become the British volume of the Journal of Hand Surgery.

**The IFSSH ezine acknowledges the above information from an obituary published in the Journal of Hand Surgery(Br)1993 18:270*

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Latest issue is: Volume 28 ▪ Issue 2 May 2012

- The Evolution of Distal Radius Fracture Management: A Historical Treatise Rafael J. Diaz-Garcia, Kevin C. Chung
- The Epidemiology of Distal Radius Fractures Kate W. Nellans, Evan Kowalski, Kevin C. Chung
- Common Myths and Evidence in the Management of Distal Radial Fractures Rafael J. Diaz-Garcia, Kevin C. Chung
- Management of Distal Radial Fractures from the North American Perspective Albert Yoon, Ruby Grewal
- Extra-Articular Fractures of the Distal Radius – A European View Point A. Karantana, T.R.C Davis
- An Asian Perspective on the Management of the Distal Radial Fractures Sandeep J. Sebastin, Kevin C. Chung
- Anatomy and Biomechanics of the Distal Radioulnar Joint Jerry I. Huang, Douglas P. Hanel
- How to Measure Outcomes of Distal Radius Fracture Treatment Andrew W. Ritting, Jennifer M. Wolf
- Treatment Strategies of Distal Radius Fractures Joshua G. Bales, Peter J. Stern
- Avoiding and Treating Perioperative Complications of Distal Radius Fractures Peter C. Rhee, David G. Dennison, Sanjeev Kakar
- Management of the Distal Radioulnar Joint and Ulnar Styloid Fracture Douglas M. Sammer, Kevin C. Chung
- Management of Malunions of the Distal Radius Steven C. Haase, Kevin C. Chung
- The Use of Bone Grafts and Substitutes in the Treatment of Distal Radius Fractures Kagan Ozer, Kevin C. Chung
- Management of Soft-Tissue Injuries in Distal Radius Fractures Fraser J. Leversedge, Ramesh C. Srinivasan
- Recovery After Fracture of the Distal Radius Arjan G.J Bolt, David C. Ring
- Future Treatment and Research Directions in the Distal Radius Fracture Jesse Jupiter

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Hand

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- A three-dimensional finite element analysis of finger joint stresses in the MCP joint while performing common tasks Kent D. Butz, Greg Merrell and Eric A. Nauman
- Complete digital amputations undergoing replantation surgery: a 10-year retrospective study Ryan M. Neinstein, Linda T. Dvali, Suzanne Le and D.J. Anastakis
- Difference in treatment of digital amputation injuries based on community transfer versus tertiary initial presentation Benjamin Amis and Jeffrey Friedrich
- Review of theological and doctrinal considerations of three religions impacting digital replantation decision making Ryan M. Neinstein, Linda T. Dvali, Suzanne Le and Dimitri J. Anastakis
- Use of the transverse carpal ligament for soft tissue reconstruction of a Mannerfelt lesion Raymond Tse, Jeffrey B Friedrich and Vincent R. Hentz
- Hand function in female patients with hand osteoarthritis: relation with radiological progression Esma Ceceli, Sebahat Gül, Pınar Borman, Selma Ramadan Uysal andMüyesser Okumuş
- Digital nerve injuries: a review of predictors of sensory recovery after microsurgical digital nerve repair Joline F. Mermans, Bas B. G. M. Franssen, Jan Serroyen and Rene R. W. J. Van der Hulst
- Primitive neuroectodermal tumor of hand and forearm: A rare clinical entity Raja Tiwari, Satya S. Tripathy and Ramesh K. Sharma
- Elongated muscle belly of the flexor digitorum superficial causing carpal tunnel syndrome Antonios Kerasnoudis
- Should we stop oral anticoagulants in the surgical treatment of carpal tunnel syndrome? K. Naito, T. Lequint, A. Zemirline, S. Gouzou and S. Facca, et al.

Journal of Hand Surgery (European Volume)

July 2012 J Hand Surg Eur Vol 37, Issue 6

- Pyrocarbon proximal interphalangeal joint arthroplasty: outcomes of a cohort study – D.T Mc Guire, C.D White, S.L. Carter and M.W. Solomons
- Medium-term outcomes of pyrocarbon arthroplasty of the proximal interphalangeal joint - J. R. B. Hutt, O. Gilleard, A. Hackerand N. Citron
- Pyrolytic carbon arthroplasty for the proximal interphalangeal joint: results after minimum 3 years of follow-up S.A Mashhadi, L. Chandrasekharan and M.A Pickford
- Three-dimensional deformity analysis of malunited distal radius fractures and their influence on wrist and forearm motion J. Miyake, T. Murase, Y. Yamanaka, H. Moritomo, K. Sugamoto and H. Yoshikawa
- The quadriga phenomenon: a review and clinical relevance T.A.R. Schreuders
- In de Quervain's with a separate EPB compartment, ultrasound-guided steroid injection is more effective than a clinical injection technique: a prospective open-label study K. Kume, K. Amano, S. Yamada, K. Amano, N. Kuwaba and H. Ohta
- Commentary on 'In de Quervain's with a separate EPB compartment, ultrasound-guided steroid injection is more effective than a clinical injection technique: a prospective open-label study' by K. Kume et al. J Hand Surg Eur. 2012, 37: 523-527 Robert Turner
- Neurophysiological and morphological responses to treatment with acetyl-L-carnitine in a sciatic nerve injury model: preliminary data S. Karsidag, A. Akcal, S. Sahin, S. Karsidag, F. Kaukcuoglu and K. Ugurlu
- Tolerance and effects of FK506

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- Tissue-engineered Collateral Ligament Composite Allografts for Scapholunate Ligament Reconstruction: An Experimental Study - Ryan Endress, MD, Colin Y.L. Woon, MD, Simon J. Farnebo, MD, PhD, Anthony Behn, MS, Joel Bronstein, BS, Hung Pham, BS, Xinrui Yan, MD, PhD, Sanjiv S. Gambhir, MD, PhD, James Chang, MD
- Scapholunate Ligament Reconstruction Using an Acellular Dermal Matrix: A Mechanical Study - Amirhesam Ehsan, Dong G. Lee, Adam J. Bakker, Jerry I. Huang
- Distal Radius Fracture Risk Reduction With a Comprehensive Osteoporosis Management Program - Neil G. Harness, Tadashi Funahashi, Richard Dell, Annette L. Adams, Raoul Burchette, Xuan Chen, Denise Greene
- An Anatomical Study of the Watershed Line on the Volar, Distal Aspect of the Radius: Implications for Plate Placement and Avoidance of Tendon Ruptures - Junya Imatani, Keiichi Akita, Kumiko Yamaguchi, Hirotaka Shimizu, Hidenori Kondou, Toshifumi Ozaki
- The Natural Course of Traumatic Triangular Fibrocartilage Complex Tears in Distal Radial Fractures: A 13–15 Year Follow-up of Arthroscopically Diagnosed but Untreated Injuries - Ante Mrkonjic, Mats Geijer, Tommy Lindau, Magnus Tägil
- Ganglions of the Wrist and Associated Triangular Fibrocartilage Lesions: A Prospective Study in Arthroscopically-treated Patients - I. Langner, P.C. Krueger, H.R. Merk, A. Ekkernkamp, A. Zach
- Reconstruction of the Ulnar Head With a Vascularized Second Metatarsal Head: Case Report - Francisco del Piñal, M. Llanos Guerrero-Navarro, Alexis Studer, Carlos Thams, Eduardo Moraleda
- Metaphyseal Ulnar Shortening Osteotomy for the Treatment of Ulnocarpal Abutment Syndrome Using Distal Ulna Hook Plate: Case Series - Fiesky A. Nunez Jr, Jonathan Barnwell, Zhongyu Li, Fiesky A. Nunez Sr
- Clinical Outcomes of Total Wrist Arthroplasty - Jason A. Nydick, Scott M. Greenberg, Jeffrey D. Stone, Bailee Williams, John A. Polikandriotis, Alfred V. Hess
- Outcome of Endoscopic Carpal Tunnel Release in Patients With Chronic Nonhand Pain Compared With Those Without Chronic Pain - Keith E. Follmar, Monica D. Chetelat, Scott D. Lifchez
- Accuracy of Ultrasonography and Magnetic Resonance Imaging in Diagnosing Carpal Tunnel Syndrome Using Rest and Grasp Positions of the Hands - Yi-Shiung Horng, Hsu-Chao Chang, Kun-Eng Lin, Yue-Liang Guo, Dung-Huan Liu, Jung-Der Wang
- Incidence of Carpal Tunnel Release: Trends and Implications Within the United States Ambulatory Care Setting - Marc Fajardo, Sunny H. Kim, Robert M. Szabo
- Brachialis-to-Extensor Carpi Radialis Longus Selective Nerve Transfer to Restore Wrist Extension in Tetraplegia: Case Report - Jan Fridén, Andreas Gohritz
- The Effects of Targeted Muscle Reinnervation on Neuromas in a Rabbit Rectus Abdominis Flap Model Peter S. Kim, Jason H. Ko, Kristina K. O'Shaughnessy, Todd A. Kuiken, Eric A. Pohlmeyer, Gregory A. Dumanian

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- Role of the extensor carpi ulnaris and its sheath on dynamic carpal stability G. Salva-Coll, M. Garcia-Elias, M. M. Leon-Lopez, M. Llusa-Perez and A. Rodríguez-Baeza
- Commentary on 'Role of the extensor carpi ulnaris and its sheath on dynamic carpal stability' by G. Salva-Coll et al. J Hand Surg Eur. 2012, 37: 544–548
- Fibre bundles in the human extensor carpi ulnaris tendon are arranged in a spiral – N.S. Kalson, P.S.C. Malone, R.S. Bradley, P.J. Withers and V.C. Lees
- The mechanics of flexor tendon adhesions O.A. Branford, D.A. Lee, D.L. Bader and A.O Grobbelaar
- The attachment of intrinsic and extrinsic, mobilized and immobilized adhesion cells to collagen and fibronectin O.A Branford, D.A. Lee, K.J. Rolfe and A.O. Grobbelaar

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- Posterior Interosseous and Ulnar Nerve Motor Palsies After a Minimally Displaced Radial Neck Fracture Matthew T. Stepanovich, Christopher J. Hogan
- The Effects of Oblique or Transverse Partial Excision of the A2 Pulley on Gliding Resistance During Cyclic Motion Following Zone II Flexor Digitorum Profundus Repair in a Cadaveric Model Tamami Moriya, Andrew R. Thoreson, Chunfeng Zhao, Kai-Nan An, Peter C. Amadio
- The Effect of Suture Coated With Mesenchymal Stem Cells and Bioactive Substrate on Tendon Repair Strength in a Rat Model Jeffrey Yao, Colin Yi-Loong Woon, Anthony Behn, Tatiana Korotkova, Don-Young Park, Varun Gajendran, R. Lane Smith
- Anomalous Tendon to the Middle Finger for Sagittal Band Reconstruction: Report of 2 Cases John D. Beck, John T. Riehl, Joel C. Klena
- Adverse Events of Open A1 Pulley Release for Idiopathic Trigger Finger Hanneke Bruijnzeel, Valentin Neuhaus, Sigrid Fostvedt, Jesse B. Jupiter, Chaitanya S. Mudgal, David C. Ring
- The Influence of Seatbelts on the Types of Operated Brachial Plexus Lesions Caused by Car Accidents Radek Kaiser, Pavel Haninec
- Anterior Release of Elbow Flexion Contractures in Children With Obstetrical Brachial Plexus Lesions Antonio García-López, Pablo Sebastian, Francisco Martinez-López
- Early Results of Surgical Intervention for Elbow Deformity in Cerebral Palsy Based on Degree of Contracture Michelle G. Carlson, Krystle A. Hearns, Elizabeth Inkellis, Michelle E. Leach
- The Fate of the Index Metacarpophalangeal Joint Following Pollicization Heather V. Lochner, Scott Oishi, Marybeth Ezaki, Kanchai Malungpaishrope, Richard B. Moore
- Idiopathic Multicentric Osteolysis: Upper Extremity Manifestations and Surgical Considerations During Childhood Charles A. Goldfarb, Jennifer A. Steffen, Michael P. Whyte
- Hand Fractures in Children: Epidemiology and Misdiagnosis in a Tertiary Referral Hospital Ee Ming Chew, Alphonsus K.S. Chong

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- An Exercise Program for Carpometacarpal Osteoarthritis Based on Biomechanical Principles - Kristin Valdes, Rebecca von der Heyde
- Prognosis and Prognostic Factors for Patients with Persistent Wrist Pain Who Proceed to Wrist Arthroscopy Rosemary Prosser, Mark J. Hancock, Leslie L. Nicholson, Lisa A. Harvey, Paul LaStayo, Ian Hargreaves, Peter Scougall, Robert Herbert
- Clinical Commentary in Response to: Prognosis and Prognostic Factors for Patients with Persistent Wrist Pain Who Proceed to Wrist Arthroscopy - Kristin Valdes, Susan L. Michlovitz
- The Brachial Plexus Outcome Measure: Development, Internal Consistency, and Construct Validity - Emily S. Ho, Christine G. Curtis, Howard M. Clarke
- Packaging—A Problem for Patients with Hand Disorders? A Cross-sectional Study on the Forces Applied to Packaging Tear Tabs - Miriam Marks, Carina Muoth, Jörg Goldhahn, Andrea Liebmann, Ina Schreib, Stephan F. Schindele, Beat R. Simmen, Thea P.M. Vliet Vlieland
- Hand Grip Function Assessed by the Box and Block Test Is Affected by Object Surfaces - Na Jin Seo, Leah R. Enders
- Static Progressive Orthosis for Patients with Limited Radial and/or Ulnar Deviation: An Innovative Orthotic Design - Marie-Lyne Grenier, Shrikant J. Chinchalkar, Joey G. Pipicelli
- New Clinical Motor Test for Cubital Tunnel Syndrome - Sergey A. Goloborod'ko

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- The 9th Congress of the Asian Pacific Federation Societies for Surgery of the Hand (APFSSH) in conjunction with the 5th congress of the Asian Pacific Federation of Societies for Hand Therapy (APFSHT), October 10-13, 2012, Grand Hotel, Bali, Indonesia - Moroe Beppu
- Comparison Of Three Different Peripheral Suturing Techniques For Partial Flexor Tendon Lacerations: A Controlled In-Vitrobiomechanical Study - A. Gulihar, L. Hajipour, J. J. Dias
- The Emergent Assessment Of Supracondylar Fractures Of The Paediatric Humerus - K. Patel, P. A. McCann
- Spontaneous Distal Biceps Tendon Ruptures: Are They Related To Statin Administration? - Christiana Savvidou, Rodrigo Moreno
- Outcome Of Unstable Distal Radius Fractures Treated With Open Reduction And Internal Fixation Versus External Fixation Emmanuel P. Estrella, Paulo L. Panti
- Treatment With Or Without Internal Fixation For Ulnar Styloid Base Fractures Accompanied By Distal Radius Fractures Fixed With Volar Locking Plate - Yukichi Zenke, Akinori Sakai, Toshihisa Oshige, Shiro Moritani, Toshitaka Nakamura
- Various Patterns Of Traumatic Triangular Fibrocartilage Complex Tear - Y. Abe, Y. Tominaga, K. Yoshida
- Pyogenic Flexor Tenosynovitis: One Year's Experience At A Uk Hand Unit And A Review Of The Current Literature - Dariush Nikkhah, Jeremy Rodrigues, Khabab Osman, Lodewikus DeJager
- The Study Of Work Behaviours And Risks For Occupational Overuse Syndrome Niyom Laoopugsin, Suwannee Laoopugsin
- The Bilatral Ulnar Artery Involvement in Type IV Ehlers-Danlos Syndrome – A Case Report Kazuo Ikeda, Naoki Osamura, Satomi Kasashima
- Linburg-Comstock Syndrome: A Case Report Kayoko Furukawa, Kunitaka Menuki, Akinori Sakai, Toshihisa Oshige, Toshitaka Nakamura
- Linburg-Comstock Phenomenon Following Forearm Laceration B.Lin, S. Sreedharan, Andrew Y.H. Chin
- Osteoid Osteoma Of The Radial Styloid Mimicking Wrist Arthritis: A Case Study Christos K. Yiannakopoulos, Konstantina Foufa, Stylianos Theocharakis, Efthimios Stamoulis, Vassilios Maniatis
- Bicipital Tuberosity Osteochondroma Causing Painful Clicking Around The Wrist: Case Report And Literature Review Abdulrahman Alsawadi, Mustafa Abbas, Jeremy Stanton
- Wrist Synovial Chondromatosis: Case Report And Literature Review

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- Concomitant Avascular Necrosis Of The Scaphoid And Lunate Praveen Bhardwaj, Chetna Sharma, S. Raja Sabapathy
- Synovial Fringe (Plica) Of Scapho-Trapezial Joint Following Trauma Hideki Ishii, Akihiko Asami, Motoki Sonohata
- Avulsion Fracture of the Extensor Carpi Radialis Longus Tendon: Case Report and Literature Review Srinivasan Shyamsundar
- Open Wedge Flexion Osteotomy of the Metacarpal Neck for the Avascular Necrosis of the Third Metacarpal Head: Case Report Souichi Ohta, Ryousuke Kakinoki, Satoshi Fujita, Takashi Noguchi
- Paradoxical Extension Phenomenon Of The Little Finger Due To Repetitive Trauma To The Palm Yukio Abe, Yasuhiro Tominaga
- An Unusual Case of Primary Cutaneous Lymphoma Presenting in the Upper Extremity: A Case Report Wei-Tee Sia, Puay-Ling Tan, Khoon-Leong Chuah, Lam-Chuan Teoh
- Myxoinflammatory Fibroplastic Sarcoma of the Finger: A Case Report Katsuyasu Fukasawa, Makoto Samejima, Koichi Kobayashi
- Rare Digital Tumours: Two Case Reports and Mini Review C.W.M. Horner, A.Speller, T. McBride, R. Dias
- Subungual Glomangiomyoma – A Case Report Adi Wollstei, Ronit Wollstein
- An Unusual Case of Subungal Ossification in the Finger Colin Weixuan Tan, Puay-Ling Tan, Lam-Chuan Teoh
- A Simple Reduction Technique in Intramedullary Nailing (Micronail) of Distal Radius Fracture – Intrafocal Elastic-Spring Pinning Method Kosuke AJIMA, Takeshi Koba, Eiryu Takao
- Dorsal Percutaneous Cannulated Mini-Screw Fixation For Fractures of the Hamate Hook Oliver Scheufler, Sebastian Radmer, Reimer Andresen
- Scaphoid Fracture in the Elderly: A Review Abdulrahman Alsawadi, Jeremy Stanton

Upcoming events

Sino-European Meeting on Brachial Plexus Surgery

September 14-16 2012
Milan, Italy
www.sem-brachialplexus.com

In 2007 we set an academic collaboration between our department and the department of Hand Surgery in HuaShan Hospital in Shanghai and it's still successfully pursuing its aim: to create a platform for colleagues around the world sharing common interest in this beautiful and fascinating field of surgery, bringing them all together to discuss specific aspects of the treatment of these injuries. We want to compare and exchange experiences, learning from each other in order to enrich our knowledge of this pathology.

Up till now, our invitation has been received with enthusiasm and we have gathered numerous and valuable contributions: I am therefore delighted and privileged to say that the Sino-European meeting on brachial plexus surgery has become a traditional appointment several colleagues from around the world look forward to.

We want to go on offering an exciting, educational and memorable experience: we thank YOU for being part of it!

Dr Debora Garozzo, Dept. Of Neurosurgery, Rovigo, Italy

The Ulnar Side of the Wrist: problems and solutions

17 October 2012
London, United Kingdom
www.aesculap-academia.co.uk

This one day course, which includes lectures and discussion together with a cadaveric laboratory, is designed for senior trainees and consultants who have an interest in this fascinating area of wrist surgery.

The international faculty all have considerable expertise in this field and there is plenty of time for discussion. Participants are encouraged to bring their most challenging cases. The cadaveric section will allow ample time to become familiar with the implants and techniques available.

International Committee for Quality Assurance Medical Technologies & Devices in Plastic Surgery (IPRAS/ IQUAM) Congress and Consensus Conference

2-4 November 2012
Athens, Greece
www.iquam2012.com

17 World Congress of the International Confederation for Plastic, Reconstructive and Aesthetic Surgery

24 February – 1 March 2013
Santiago, Chile
www.ipraschile.cl

3000 expected participants and 350 Top International Speakers from more than 95 countries

IFSSH & IFSHT Triennial Congress

Delhi, India
4-8 March 2013
http://www.ifssh-ifsht2013.com/

Welcome to Incredible !ndia
The members of the Indian Society for Surgery of the Hand look forward to welcoming all of you to the 12th Triennial Congress of the IFSSH and the 9th Triennial Congress of the IFSHT to be held in Delhi from the 4th to 8th March 2013. If it is going to be your first visit to India we will make sure you will enjoy it. If you have come before, we will show you a different India. That should not be difficult in a land of contrasts, a combination of tradition and modernity.

The venue will be the Imperial city of New Delhi. We have reserved good accommodation in all ranges and hope to offer you unmatched hospitality and an academic feast. Every delegate booking in the conference hotels will be received in the airport and airport transfers will be complimentary irrespective of the time of arrival of your flight.

We are planning a colourful inauguration. Every registered delegate is invited to the President's dinner on the 5th March and it again will give you an opportunity to connect with everyone. The Banquet on the 7th March will make you experience the cultural and the culinary diversity of India. We will see that the accompanying persons have a better time than you with the Delhi sightseeing tours and the shopping opportunities!

On the academic front, the Swanson's Lecture will be delivered by Prof Wayne Morrison. This time, we have a special session wherein four senior surgeons each a legend in his own way, talking about their life and work in a session titled, 'Reflections of the Legends'.

This will be a combined congress of the therapists and the surgeons. The scientific committee of the IFSHT is busy planning a great session and we are collaborating on a plenary session on the 'Paralytic Hand'. In addition there will be the symposia, panel discussions and the free papers to bring to you the best that today can offer. Be a part of it. Deadline for abstracts is 31st Aug 2012

To make it complete, a day trip to the Taj Mahal is planned the day after the congress is over (optional). Make this trip to India your family holiday of the year. Please visit the website www.ifssh-ifsht2013.com to know more about the pre and the post congress tours. We have chosen very experienced and committed congress managers in Plan it by Creative Travels. They will do everything they can to make your trip comfortable.

You just have to come. We will take care of the rest.
Dr S Raja Sabapathy
Congress Chairman, IFSSH-IFSST 2013,
Feel free to contact me anytime on email rajahand@vsnl.com or on 91 9842219328

About our conference logo

The symbolic gestures of the hands called 'mudras' are pictorial tools of identification of deeper meaning. We have chosen the hand posture, 'Chin Mudra', which symbolises mentoring, learning and teaching. It is placed on lotus, the national flower of India and it symbolises peace and happiness. As depicted by the logo, we wish every delegate a fantastic learning experience, peace and happiness.

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INTERNATIONAL FEDERATION OF SOCIETIES FOR SURGERY OF THE HAND