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CONNECTING OUR GLOBAL HAND SURGERY FAMILY

HAND THERAPY  
REGAINING FOREARM ROTATION

SHARE SECTION  
EPONYMS OF FRACTURES  
- PERSONAL NAMES

# Neurological classification of AMC



SPECIAL FEATURE: CLASSIFICATION OF UPPER LIMB  
DEFORMITIES IN CHILDREN WITH ARTHROGRYPOSIS  
MULTIPLEX CONGENITA

TIPS AND TECHNIQUES: SIMPLE  
ROTATION OSTEOTOMY FOR  
CONGENITAL RADIO-ULNAR SYNOSTOSIS

THE JOURNAL OF  
**HAND  
SURGERY**  
ASIAN-PACIFIC VOLUME



# THE JOURNAL OF HAND SURGERY

(Asian-Pacific Volume)

An International Journal Devoted to Hand and Upper Limb Surgery and Related Research  
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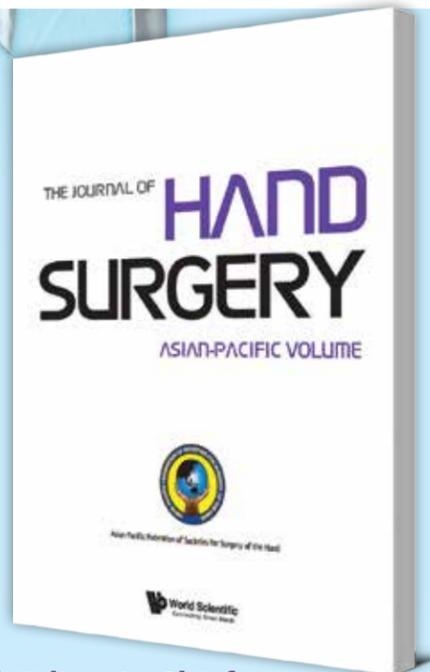
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# Lest we forget: We are scientists

One of the glaringly problematic consequences of the COVID-19 pandemic is the blurring between science and fiction.

Politicians on the whole have arrogantly assumed the role of expert spokespersons for this dreaded disease which affects all of our lives. They even want to interfere with medical standards which are set to safeguard the public. We are dealing with a viral pandemic, not a war. It is about evidence-based scientific information, not a political ball game. A prime example is the well-researched fact that mask wearing is an effective method to curb the spread of the virus. Politicians have over-ruled scientists and turned this simple preventative measure into a political choice.

Many people have been fooled by pseudo-science and in numerous cases by outright lies. Unsupported statements, conspiracy theories and unverified fear mongering have caused the public to distrust scientific data and scientists. Many people have started to disregard evidence-based facts entirely. These facts are being received and propagated as propaganda and hoaxes.

It took a very long time, much debate, disbelief, ridicule and suffering by numerous scientists to convince non-believers that planet Earth is not flat, and that Earth is not the centre of the universe.

How does one regain the public's trust and confidence?

As scientists gather more tested data based on good quality research, management guidelines are updated as soon as the information is peer reviewed. It does not mean that scientists are changing their minds. Our knowledge and application of new knowledge is ever-evolving as ongoing research proves or disproves new hypotheses. The scientific method is to ask questions. It is a quest to understand better, continually. The ultimate aim is to get answers to clear questions and gain new indisputable understanding of how it all fits together. It is about informing our fellow citizens for their good.

Trusting science is following the evidence and verified data. Let us stick to our principles of honest research, trustworthy reporting of results and formulation of logical conclusions.

Above all, let us be humble in our claims. Because tomorrow we will hopefully know even more!

Yours,  
Ulrich



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# Communicating our History

The IFSSH is, as always, adapting to changes in the world. One adaptation is that the IFSSH Executive Committee has decided that the previous role of Historian is changing to become the Communications Director.

My predecessor Frank Burke did an extraordinary job finding and organising material which describes the illustrious history of IFSSH. In my first 3 years as Historian, with the help of Belinda Smith our incredible administrator, we have added some more material to the website. The website has been re-designed and has readily accessible material on many historical facts-member societies, minutes from meetings, educational awards, Pioneers, Past Presidents and so on. Take a look at [www.ifssh.info](http://www.ifssh.info) to see what is new.

But now it is apparent that historical archiving of IFSSH history is nearly complete. It is also apparent that nowadays, history is a digital resource which is held on the website with some other material in an IFSSH DropBox archive.

As well as the refreshed IFSSH Website, we now have a presence on Twitter (@IFSSHHand) and Instagram (@ifsshhand). This has been supported by Belinda and my colleagues Zaf Naqui and Max Horwitz. Please follow us!

In addition we have the wonderful IFSSH Ezine which under the enthusiastic and tireless editorship of Ulrich Mennen, is available, again digitally, to all hand surgeons and therapists across the world.

The IFSSH will communicate more and more. So the Historian role will disappear, to be replaced by a Communications Director. This role will of course include a responsibility to collect and archive IFSSH documents as they occur, with updating from time to time of member histories, review of what is kept on the Dropbox archive.

But the main role is communication. To constantly refresh the website, to present our archives in an accessible and interesting way, to use social media such as Twitter and Instagram, and the IFSSH Ezine to spread messages to the hand surgeons and therapists of the world- meetings, interesting research, accident prevention, educational opportunities and so on.

When my term is up in 2 years, we will recruit someone with real talent for social media and with the skills to develop this essential future direction of the IFSSH.

If you have any material to share on Twitter, Intagam or the Ezine, if you have a history of your society, or if you have ideas on improving the IFSSH website then please let me know [davidwarwick@handsurgery.co.uk](mailto:davidwarwick@handsurgery.co.uk).



**David Marwick**  
Historian: IFSSH

David Warwick

# Biennial Congress schedules after 2025

Dear colleagues,

First of all, I would like to thank again the representatives of all Member Societies of the IFSSH for their active participation in the recent virtual Delegates Council meeting and ratification of our new bylaws. As you probably remember, one of the subjects that were most debated during that meeting included the possibility and effects of planning our congresses every two years, instead of every three years. What follows is a synthesis of our thoughts in this regard.

Let's admit the obvious: the IFSSH Congresses are unique and growing, particularly when combined with the International Federation of Societies for Hand Therapy (IFSHT). The likelihood to attract more and more attendees, presenters and industry to one single venue should not be underestimated. The 14th IFSSH/11th IFSHT Congress in Berlin (17-21 Jun 2019) was one of the largest hand surgery congresses ever held. Not only were the subjects discussed interesting and the meeting well attended, the Congress was also financially successful.

An interesting observation is that when the IFSSH joins with a National Hand Surgery Society in a combined congress, there is a synergy developing and an attraction difficult to achieve by a stand-alone meeting of a National Society. Of course, there should not be a competition between national hand surgery meetings and those of the IFSSH. That is not the aim. The two events, however, are very much complementary. If the two are organized together, or one after the other, the mutual and positive influence of one over the other, and vice versa, will prove to be more successful. Following these ideas, over the past several years congress attendance has never decreased, and in some cases a gradual increase has been observed.

The schedule of the biennial Congresses after 2025 indicates that an IFSSH Congress will be hosted in each region once every eight years. It would seem reasonable to anticipate that the regional Federations and National Societies would be able to incorporate strategies in their long-term plans to successfully accommodate an octennial IFSSH International Congress.

Whilst some may have concerns of the current effects of SARS-CoV-2 disruptions on this future scheduling, these concerns could also be voiced in regard to the 2022 and 2025 congresses. Neither the British Society nor the American Societies have indicated their intend to rescind their offer to host the IFSSH congresses. It seems reasonable to assume that by 2027 SARS-CoV-2 will be contained, that a vaccine will be available, and its true virulence defined. Indeed, it is quite possible that once the confinement practices are lifted there may actually be a resurgence in attendance of face-to-face meetings. While virtual meetings can provide valuable

information, face-to-face meetings provide an environment which is much more intellectually stimulating and socially fulfilling.

The IFSSH executive feels that both actions - the increase in frequency and the facilitation of access by more members - may give more opportunities for younger Societies and Societies of developing nations to bid for the meeting. The cost of organizing these meetings is also less at these venues. Rotation of the IFSSH Congress in such venues also serve the purpose of increasing the visibility of the specialty of Hand Surgery in these regions; certainly one of the most important aims and objectives of the Federation: to reach out.

The interaction among our young colleagues and their mentors and role models is very important and cannot be replaced by "pixels dancing across a screen". Furthermore, our profession requires solid and frequent interaction between industry and hand surgeons. The best place for this to occur is during in-person meetings. Hands-on demonstrations are not something that can be done virtually. IFSSH Congresses are not only about education, but also about providing a venue for that irreplaceable person-to-person interaction. Not that we do not appreciate the utility of virtual meetings. Indeed, going forward the IFSSH may begin integrating aspects of virtual meetings with in-person meetings, the so-called "hybrid" education system.

In short, the Exco of the IFSSH prefers the biennial Congress schedule with two main reasons for this decision: 1) it will allow more Societies to host the IFSSH Congress and 2) there will be greater access to the governance of the Federation. The Exco believes that a move to a biennial Congress schedule could be done without endangering the future of our organization. Should the biennial Congress schedule prove to be problematic, the new bylaws allow the Federation to embrace alternative virtual/in-person congresses and alternative schedules.

Sincerely yours,



**Marc Garcia-Elias**  
President: IFSSH

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# IFSSH Secretary-General Report



## IFSSH Delegates' Council Meeting 2020

For the first time in our history, the IFSSH conducted its annual Delegates' Council Meeting online. This was held on the 12 September 2020 and we recognise the dedication of our Delegates and Guests who attended across a wide range of time zones. For Dr Zong-Ming Li, the Hand and Wrist Biomechanics International representative, the meeting commenced at 4am in his Arizona location; for Dr Wolfgang Heiss-Dunlop, the New Zealand Hand Surgery Society delegate, it was 11pm. A further 50 Exco members, delegates and allied organisation representations joined from locations in time zones in between. We were delighted to have so many participants given the new format and timing!

The Exco and Delegates discussed progress since the Berlin meeting and plans for the future. Financially, the IFSSH has made pleasing gains. As happened to most, Covid-19 impacted negatively on our investment portfolio; however this has already returned to higher levels than those prior to Covid-19. We also received a positive profit share from the Berlin congress. This financial position has allowed the IFSSH to provide a number of educational grants over the past 12 months, as well as cover the standard expenses.

Dr Daniel Nagle, Chair of the IFSSH Committee for Educational Sponsorship, detailed the recipients of CES funding. These include:

- Colombia/Venezuela combined congress in Cucuta, Colombia (\$2500; this particular meeting has been postponed but money remains allocated for this purpose when the congress is rescheduled).
- Hand surgery fellowship, Komfo Anokye Teaching

Hospital, Kumasi, Ghana: (\$1450 x 3 years paid annually).

- International Consortium for Healthcare Outcomes Measurement (ICHOM) Adult Hand Set (\$5000).
- Touching Hands / IFSSH workshop, Mount Kenya University, Nairobi, Kenya (\$3500)
- APFSSH 2020 Congress Developing Country Registration Grant (\$10,000)
- IFSSH Harold Kleinert Visiting Professorship - Dr Steven Moran (\$7500). This funded the first IFSSH Harold Harold Kleinert Visiting Professor, nominated by the Asian Pacific Federation of Societies for the Hand (APFSSH). Dr Moran visited multiple sites/meetings within Australia in March 2020.

Prof David Warwick, the IFSSH Historian, reported on the progress of the IFSSH website and social media. Society histories, Past-President profiles and further educational resources have all been added to the website - [www.ifssh.info](http://www.ifssh.info) - as well as the 2019 IFSSH Pioneers of Hand Surgery booklet. The social media followers continue to rise. The IFSSH Twitter and Instagram accounts are found via @IFSSHHand.

Dr Jörg van Schoonhoven provided the 2019 IFSSH Berlin congress' final report. He reported that the German Society remains very grateful for being given the opportunity to host the 2019 IFSSH Congress. Given the current international changes, the DGH is thankful that this was hosted in 2019 rather than 2020! The final statistics relating to the congress include:

- 4002 registrations from delegates (65% surgeons, 17% therapists, 10% industry, 8% guests) - 560 from

Germany, followed by UK, Switzerland, Japan.

- 1812 abstract submissions
- 1503 oral presentations
- 95 industry supporters (37% Germany, 42% Europe, 21% worldwide)

The DGH was able to provide a final income share to the IFSSH of 115,300 Euro. Overall, the organising committee was very happy with the congress and pleased that the atmosphere of the meeting displayed that everyone felt welcome and had a good time.

The German Society won the rights to host this congress back in 2013 during the Delhi congress and the IFSSH has enjoyed their support and friendship over the past 7 years. It is now time to pass on the baton and look towards the London 2022 Congress.

Drs David Shewring and Jonathan Hobby reported of the London organising committee's plans. Most importantly, there has been a change of venue and also a change of date: the venue is the ExCeL Centre, which is situated in the Docklands, East London, and the congress will run from 6 to 10 June 2022.

The organising committee and the PCO are meeting regularly, planning the symposia and keynote speakers, as well as the instructional course book: "Tendon Disorders of the Hand and Wrist". Social events will include the IFSSH Presidential Dinner at The Barber Surgeon's Hall and a Gala Dinner with the Old Billingsgate Market as a potential site for this. The British Society is proposing a fellowship programme to occur around the 2020 IFSSH meeting.

The organising committee has recommended two parallel programmes: one for trainees from Europe, America and Asia, and a second programme for those from low income/resource countries. These would be for 2-3 week periods in a travelling fellowship programme, allowing for attendance at the congress as well as a number of centres throughout the UK.

With the reports completed, the Exco moved on to the major business works that have been developed since

Berlin. The Exco had earlier presented the Amended and Restated IFSSH Bylaws to the Delegates via email. The motivation to undertake this review came from the Delegates. In Berlin there were requests for greater access to governance and greater opportunity to host the International Congress. In parallel, the Exco was concerned about the protection of the presidential line and institutional memory. The Exco reviewed the old bylaws to determine the extent of the changes that may be necessary to achieve these requests. It was noted that the existing bylaws are now not compliant with the Illinois not-for-profit law, they were imprecise, and they contained extraneous material. With these findings, the Exco agreed to revise the entire bylaws document rather than update specific articles.

The drafting process was a joint endeavour of the attorney specializing in Illinois not-for-profit medical association law (Jed Mandel, Chicago Law Partners) and the Executive Committee. Multiple drafts were constructed, based on the old bylaws. Deficiencies were corrected and standard practices for not-for-profit organizations were followed. This process took 1 year. The final draft, with the existing deficiencies now corrected, is compliant with Illinois law. **It increases member participation in the IFSSH governance through two methods: it increases Members-at-large from 1 to 5; and it adds two non-Exco members to the Nominating Committee. In addition, it further increases opportunities to serve on the Exco as the Exco terms are decreased to two years. This is accomplished enhanced by changes to the Exco composition which in turn eliminate the Secretary General-elect (2022) and President-elect (2025) positions.** The final draft increases the opportunity to host the International Congress and protects IFSSH institutional memory carried by the presidential line.

In June the Amended and Restated IFSSH Bylaws were distributed to the Delegates and a voting process undertaken online. These were accepted by the majority required and therefore now come into effect.

The Exco and Delegates discussed the implications of these bylaw alterations in depth. The basis of increasing member participation within the Exco is enhanced by the biennial terms and therefore a biennial congress schedule was suggested to align these two events. We are aware that some delegates have questioned the move to biennial terms from 2025. The basis of this is to increase member participation in IFSSH governance and increase opportunity to host International Congress (e.g. South America hosted the 2016 congress but the next hosting option under the current triennial system is not until 2040; this would move to 2029 under the proposed biennial rotation).

This opened a discussion, led by Dr Don Lalonde on behalf of the American Society for Surgery of the Hand. Many views and opinions were shared as to the advantages and disadvantages of biennial vs triennial congresses and it was requested that a further vote be taken specifically on this item. As the congress schedule/frequency is not documented within the Bylaws, this can be done without reassessing the full Bylaw process. The Exco agreed to do so and all Delegates will receive an invitation to vote on behalf of their Society in the near future. We will provide the results to all societies as soon as this voting is completed.

The final item of the meeting was that of the IFSSH Scientific Committees. Prof Jin Bo Tang, IFSSH Member-at-Large, announced that prior to the London 2022 meeting, the Journal of Hand Surgery (E) plan to publish a special issue to honour the relationship with the IFSSH and also to publicise the London meeting. This will be approx. 6 months prior to the meeting. The issue will typically have 10-14 full length articles that will be commissioned by the Editor to the IFSSH leading experts. These invites will be sent worldwide to accomplish this very important landmark work and to promote the mission of the IFSSH.

Again, we thank all of Delegates and Guests for their wonderful support at all times and especially their

valuable input during the annual meeting. We hope to meet again in person for the 2021 Delegates' Council Meeting! The proposed schedule is to join the FESSH Congress in Rotterdam, The Netherlands, 16-19 June 2021.

#### Future Meetings

A detailed list of national and regional hand surgery meetings is available on the IFSSH website. The triennial IFSSH Congresses are as follows:

XVth IFSSH – XIIIth IFSHT Congress – London, United Kingdom

6th - 10th June, 2022

XVIth IFSSH – XIVth IFSHT Congress – Washington D.C., USA

29th March - 3rd April, 2025

Sincerely,  
Goo Hyun



**Goo Hyun Baek**

Secretary-General, IFSSH  
Email: secretary@ifssh.info

# Classification of upper limb deformities

## IN CHILDREN WITH ARTHROGRYPOSIS MULTIPLEX CONGENITA - AGRANOVICH O.E. & LAKHINA O.L.

Patients with multiple congenital arthrogryposis (AMC) have upper limb deformities in up to 95% of cases. They usually have a typical appearance : the shoulder is held in adduction and internal rotation, the elbow in extension (less often in flexion), the wrist is held in flexion, the thumb is adducted, and the finger joints are held in varying degrees of flexion<sup>[1,2]</sup>. Most patients have deformities of both upper extremities (84%), and contractures are usually symmetrical<sup>[3]</sup>.

Gibson and Urs (1970) examined 140 patients with AMC and found that in their series 72% had lesions of the upper extremities, of whom 32% had deformities of the wrists,, 26% of the hands, 25% of the elbows, and 19% of the shoulders<sup>[4]</sup>.

In the available literature, we found several classifications of upper limb deformities in patients with arthrogryposis.

Weeks (1965) divided patients with upper limb lesions into three groups. The first group included patients with isolated pathology of any one segment of the upper limb (pronation contracture of the forearm, thumb-in-palm, and lack of active extension of the hand or fingers). The second group included patients who had lesions of the upper limb with rigid contractures. The third group included patients with stiff or loose joints of upper limb and lack of active function<sup>[5]</sup>.

Smith (1973) also divided patients with arthrogryposis of their upper extremities into three groups. The first group included patients with contractures of all joints of the upper limb and a deficit of subcutaneous fat. The upper extremities in these cases were characterized by extensor contractures of the elbow, pronation contractures of the forearm, wrist flexor contractures with ulnar deviation, and finger flexor contractures. The second group included patients with normally developed subcutaneous fat and flexor contractures of the MCP joints of the thumb and fingers. The third group included patients whose joint contractures were combined with congenital malformations of the hand<sup>[6]</sup>.

In 1980 Brown et al. examined 11 patients with AMC and identified two types of upper limb deformities depending on the segmental level of the spinal cord injury. The patients with type I anomalies (the level of lesion was C5, C6) had shoulder adduction and internal rotation, elbow extension contracture, and finger flexor contracture with ulnar deviation (13 limbs). In 2 cases, in which the T1 segment was involved, there was a restriction of the hand function due to damage to the intrinsic muscles of the hand. In type II (the level of lesion was partly C5, C6, C7), patients were characterized by adduction and internal rotation of the shoulder, flexor contracture of the elbow, and flexor contracture with ulnar deviation of the fingers (3 limbs). In 2 cases with involvement of the T1 spinal cord segment, the patients showed restriction of the

hand function due to damage to the intrinsic muscles of the hand [7].

Mennen (2005) identified two clinical types of contractures of the upper extremities: "free" (it is possible to restore a good movement in the joint) and "rigid" (the range of motion in the joint is reduced). He further proposed a method to measure the efficacy of AMC management [8].

From 2004 to 2015, 268 patients with upper limb deformities due to amyoplasia were examined and treated in the H. Turner National Medical Research Center for Children's Orthopedics and Trauma Surgery in St. Petersburg, Russia. We modified Brown's et al. classification of upper limbs deformities in patients with AMC and identified 2 main forms: isolated and complex.

A. **Isolated forms** were divided into several sub types according to the level of myotome injury:

- Type 1 - C6-C7,
- Type 2 - partial C5, C6-C7,
- Type 3 - C5-Th1,
- Type 4 - C6.

All types differ from each other by range of passive and active motion in all joints of the upper limb and have different clinical appearances.

B. **Complex forms** presented with AMC in combination with other pathologies: obstetric palsy, intra-natal cervical injury, cerebral disorders and congenital upper limbs anomalies.

**A. Isolated forms of the upper limb deformities in patients with AMC**

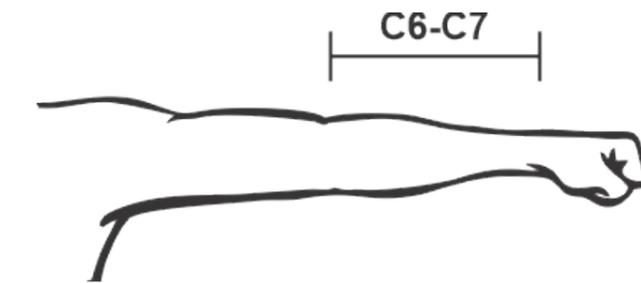
**Type 1 - level C6-C7**

Clinical appearance

- The shoulder has full passive movements, active movements are full or moderately limited (abduction  $\geq 70^\circ$ ), the muscles of the shoulder-girdle are saved or moderately hypoplastic.

- The elbow has full passive movements or moderately limited, active flexion is limited or absent, and active supination is limited.
- The wrist has full passive movement or is limited. Active wrist flexion is preserved, and active extension is limited or absent.
- The function of the hand is good. Some patients have finger contractures and limitation of thumb abduction.

The prognosis for treatment is good (Fig. 1, 2).



**Fig. 1. Type 1: upper limb deformities in patients with AMC**



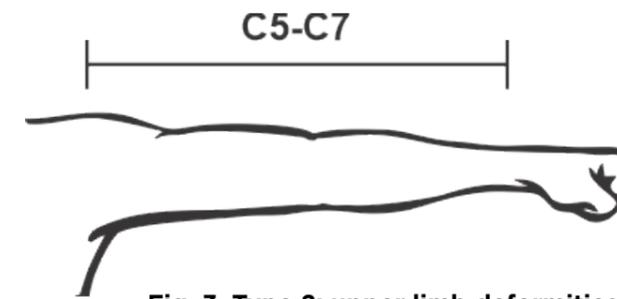
**Fig. 2. Type 1: upper limb deformities in patients with AMC (level C6-C7)**

**Type 2 - level partial C5, C6-C7**

Clinical appearance

- The shoulder has full passive or moderately limited movements, active movements are limited (abduction  $30-45^\circ$ ), and the muscles of the shoulder-girdle are hypoplastic.
- The elbow has full passive movement or moderately limited, active flexion is severe limited or absent, and active supination is absent.
- The wrist has flexion contracture with ulnar deviation. Active wrist flexion is limited, and active extension is limited or absent.
- The hand has a good or moderately limited function. Some patients have finger contractures and thumb-in-palm deformity.

The prognosis for treatment is good or satisfactory (Fig. 3, 4).



**Fig. 3. Type 2: upper limb deformities in patients with AMC**



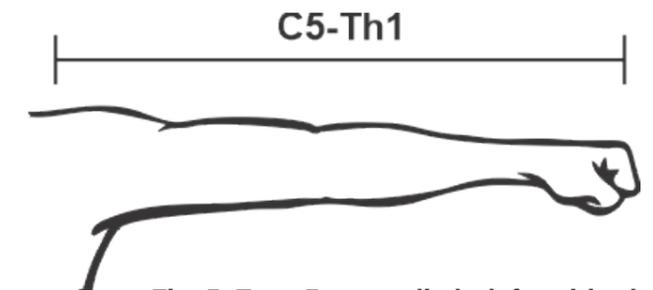
**Fig. 4. Type 2: upper limb deformities in patients with AMC (level partial C5, C6-C7)**

**Type 3 - level C5-T1**

Clinical appearance

- The upper extremities are held in internal rotation. The shoulder passive movement is limited; active movements are severely limited or absent (abduction  $10-30^\circ$ ); severe hypoplasia or aplasia of the muscles of the shoulder-girdle.
- The elbow passive movements are limited or absent (extension or flexion contracture), active movements are severely limited or absent, and active supination is absent.
- The wrist has flexion contracture with ulnar deviation or only in rare cases the hand has the middle position. Active wrist flexion is severely limited or absent, and active extension is severely limited or absent.
- The hand function is poor or absent. The patient has finger contractures, thumb-in-palm deformity and symphalangism.

The potential for treatment is satisfactory or poor (Fig.5, 6).



**Fig. 5. Type 3: upper limb deformities in patients with AMC**



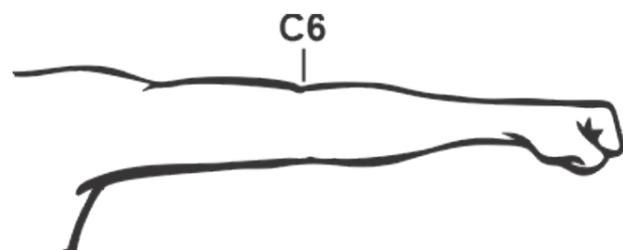
**Fig. 6. Type 3: upper limb deformities in patients with AMC (level C5-Th1)**

**Type 4 – level C6**

**Clinical appearance**

- The shoulder has full passive movements, active movements are full or moderately limited, the muscles of the shoulder-girdle are saved or moderately hypoplastic.
- The elbow passive flexion can vary from severely limited to full, the active extension is present, and the active flexion is moderately or severely limited.
- The wrist passive movement varies from limited to full.
- The hand has a good function.

The potential for treatment is good especially in cases with good elbow passive flexion (Fig.7, 8).



**Fig.7. Type 4: upper limb deformities in patients with AMC**



**Fig. 8. Type 4: upper limb deformities in patients with AMC (level C6)**

**B. Complex forms of the upper limb deformities in patients with AMC**

These deformities are rare. In these cases, the clinical picture of upper limb deformities is characterized by a combination of AMC with other pathologies, and the result of treatment is correlated with the level of spinal cord injury (Fig.9, 10).



**Fig.9. AMC in combination with obstetric palsy**



**Fig.10. AMC in combination with ectrodactyly**

**Conclusion**

The presented classification of upper limbs deformities in patients with AMC is useful for hand surgeons and hand therapists in the clinical setup and it helps to choose the optimal mode of treatment and can predict the results of treatment.



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Acknowledgement: Thanks to Alyona Melchenko who assisted in preparing this article.

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# Jörg Böhler, M.D.

(1917-2005)



Jörg Böhler was born in Gries near Bozen in South Tyrol, Austria. His parents were Lorenz and Leopoldine (née Settari) Böhler. The family moved to Vienna where Jörg completed his schooling (matura) in 1935.

In 1941 he qualified with distinction as a doctor at the University of Vienna. During the Second World War, he was involved with underwater photography in many parts of the world. He started his surgical training in 1943 at the Accident Hospital of the University of Vienna where his father worked as a Professor in the Surgical Department. Böhler obtained his surgical qualification in 1949 as a Specialist in Traumatology.

During the following two years he travelled to various hand surgery centres in the UK and USA. He worked with Sterling Bunnell in San Francisco for 6 months, and, later, in 1958 translated Bunnell's book "Surgery of the Hand" into German.

Back in Austria he became the Chief of the new Accident Hospital in Linz in 1951. In 1957 he wrote his 'habilitation' thesis entitled "The treatment of acute hand injuries with special reference to tendon injuries" This earned him the title Professor in 1964. In 1971 he moved back to Vienna to become the head of the "Lorenz Böhler Accident Hospital"

Jörg Böhler was a prolific writer with over 350 publications including contributions in major textbooks. He presented 94 courses in hand surgery with practical training on fresh deep frozen cadaver hands. Many of the 6000 participants became well known Hand Surgeons in their own right in their native countries. Böhler presented more than 500 official lectures, amongst others the "Scudder lecture" at the meeting of the American College of Surgeons in 1962 and the 7th annual Sterling Bunnell Memorial Lecture on reconstructive surgery in 1969. He was a Member of over 50 medical societies and honorary member of over 25, including the Austrian and the German Society of Hand Surgery, the German Society of Traumatology, the Swiss Society of Traumatology, the American Fracture Association, the South African Orthopaedic Association, the Hungarian Society of Traumatology, and the European Society of Traumatology. He was President of the Austrian Society for Surgery in 1965 and 1966, and from 1971 to 1973 President of the Austrian Society for Traumatology and then its Honorary President for life.

Jörg married Susi Foest-Monshoff in 1947 and they had 4 children: Nikolaus, Elisabeth, Alexander and Peter. He died on 11 December 2005, 4 days before his 88 birthday.

The honour of "Pioneer of Hand Surgery" was bestowed on Jörg Böhler by the IFSSH at its Eighth International Congress in Istanbul, Turkey on 14 June 2001.

# Richard J. Smith, M.D.

(1930 - 1987)



Richard Jay Smith was born on 14 June 1930 in the Bronx, New York, USA, and attended the Bronx High School of Science. He received his medical degree from the New York Medical College in 1955 and entered an orthopaedic surgery residency at the

Hospital for Joint Diseases in New York. After being awarded a Frauenthal Traveling Fellowship in Surgery of the Hand in 1962, he spent 6 months with Joseph Boyes in Los Angeles, USA, and 6 months with R. Guy Pulvertaft in Derby, England. From 1960 to 1962 he did a 2 year USA public service stint. In 1963 he joined Emmanuel Kaplan at the Hospital for Joint Diseases in New York, and became the Chief of the Hand Service in 1968. In 1972 Smith accepted an appointment as Chief of the Hand Surgery Service in the Department of Orthopaedic Surgery at the Massachusetts General Hospital (MGH) in Boston, and Clinical Professor of Orthopaedic Surgery at the Harvard Medical School.

In Boston he became known as a remarkable lecturer who was in great demand both in the United States and overseas. He published more than 100 professional papers on hand surgery, many considered classics. One of his special interests was the anatomy, function and dysfunction of the intrinsic muscles of the hand.

Richard Smith was the president of the American Society for Surgery of the Hand in 1982. His insights as

an outstanding educator can be summarized in his 1983 Presidential Address entitled "Education of the Surgical Specialist" (J. Hand Surgery 8, 509-515, 1983)

He was a honorary member of the British and Columbian Societies for Surgery of the Hand, and an overseas member of the Groupe d'Etude de la Main, the Caribbean Society for Surgery of the Hand, and the Peruvian Orthopaedic Association.

His activities on behalf of the International Federation of Societies for Surgery of the Hand (IFSSH), and the Joint Committee for a Certificate of Added Qualifications in Hand Surgery, were well-known, as well as his work for the American Orthopaedic Association, the American Academy of Orthopaedic Surgeons, and the American College of Surgeons.

In 1989 the MGH Orthopaedic Hand Service designated a day in honour him. The Richard J. Smith Memorial Lectureship is part of this annual conference commonly known as "Smith Day".

Richard was married to Jane and they had two daughters (Lisa and Tracey) and a son (James). Richard died on 30 March 1987 at the relative young age of 56 from a brain tumour.

At the Eight Congress of the IFSSH in Istanbul, Turkey, 10-14 June 2001, Richard J Smith was honoured as "Pioneer of Hand Surgery"

# The “One-80° Pronosupinator”: Regaining forearm rotation

The One-80° Pronosupinator is a new and versatile orthosis that is helping patients regain supination and pronation range of motion. We were driven to design the One-80° Pronosupinator through our experience as hand therapists, working with patients following wrist and elbow injuries. We know that regaining forearm rotation can be a challenge for patients and therapists alike, that traditional therapies are often not as effective as we hope, and that rotation is key to function. Research demonstrates that orthoses remain effective in these cases, despite therapy plateau, the presence of some malunion or hard end-feel. In practice, however, there are barriers to implementing orthoses to address forearm rotation. The One-80° Pronosupinator design aims to reduce these barriers and allow more patients to achieve optimal outcomes.

Forearm rotation is a key movement that allows positioning of the hand for both fine and gross motor tasks. Functional range is commonly reported as 50 degrees of each supination and pronation<sup>(1)</sup>. However, more recent studies report greater range is required for day-to-day functional tasks, with means as high as 65 degrees of pronation (keyboard use) and 77 degrees of supination<sup>(2)</sup>. The relationship of rotation and function is demonstrated in patient populations, with rotation being a predictor of Disabilities of the Shoulder and Hand (DASH) questionnaire score<sup>(3,4)</sup>. Rotational gains of 34 degrees, which were

achieved using orthoses, have resulted in a 24 point improvement in DASH score<sup>(3)</sup>, well above a minimal clinically important difference<sup>(5)</sup>.

Forearm rotation is a compound movement involving both the proximal and distal radioulnar joints. As a result, pronation and supination can be affected by injuries involving the elbow, forearm and/or wrist. Limitations of joint motion are often considered in relation to bony malunion and/or soft tissue contractures<sup>(6,7)</sup>. At the wrist, osseous malunion which alters the articulation of the sigmoid notch or ulnar head may contribute to stiffness in rotation.

However, cadaveric studies examining the effect of malunion on rotation demonstrate only a modest amount of limitation until severe malalignment is present<sup>(8,9)</sup>. Soft tissue contracture is the greater contributor to movement loss in many cases<sup>(10)</sup>. What this means for us in the clinical setting is a patient's movement restriction may be due to malunion, soft tissue contracture or a combination. And unless malunion is severe, patients still have potential to improve their range of motion through addressing the soft tissue contracture component. When malunion is determined to be the main contributor to stiffness, surgical intervention may be indicated<sup>(11)</sup>.

Early, protected motion is recommended where possible to prevent the development of soft tissue contracture and fibrosis<sup>(12)</sup>. Once stiffness develops,

it can be challenging to resolve. Traditional hand and physical therapy techniques, such as heat modalities, manual stretching and joint mobilisation, are often the first line treatment for subsequent soft tissue contracture. This can be effective for those with mild to moderate stiffness in early stages of treatment. In cases where stiffness persists, these techniques are often ineffective<sup>(13)</sup>. There is the misconception that when traditional hand therapy fails, or when there is a hard end-feel, malunion, chronicity or plateau, that two options remain. One is for the patient to compensate for any lack of movement, potentially resulting in further injury up the kinetic chain<sup>(12)</sup>; and the other is more invasive treatment<sup>(10)</sup>. However, research involving sustained stretching with orthoses shows substantial change can be achieved despite these factors<sup>(14,15)</sup>.

“...regaining forearm rotation can be a challenge for patients and therapists alike”

Researchers have investigated the effect of sustained stretching via mobilisation orthoses on forearm rotation range. The results demonstrate significant gains in supination and/or pronation using a variety of orthosis designs. Mean improvements range from 25.8 degrees (pronation)<sup>(16)</sup> to 48.3 degrees (supination)<sup>(14)</sup>. These gains were made despite participants plateauing with standard treatment and despite time since injury. In practice, these features may have historically justified a cessation of rehabilitation efforts, but this research demonstrates a potential for substantial movement gains.

There are two key components when considering the success of these orthoses: 1) forearm position within the orthosis (is the orthosis providing adequate stretch?) and 2) duration of wear (is the stretch sustained long enough to allow tissue adaptation?). When applying a mobilisation orthosis, it is critical to assess whether it is holding the patient in a position of stretch. These studies achieved this by advising regular progression of stretch whilst wearing the orthosis<sup>(15)</sup>, or by comparing maximum active range within the orthosis<sup>(14)</sup>. Alternative options, such as neoprene rotation straps or taping are never sufficiently levered for the stiff wrist or elbow. This results in limited movement gains.

Another commonly chosen orthosis is a static wrist orthosis strapped to a static elbow orthosis in either pronation or supination. This often fails to be applied by patients in a way to reliably hold the position at end-of-range, so it commonly fails to stretch a truly stiff forearm. If orthoses are not effectively holding the forearm at end-of-range, they are not going to provide an efficient and effective stretch.

Prefabricated orthoses such as the JAS Sup/Pro<sup>(3,15)</sup> or the custom-moulded design by Parent-Weiss and King<sup>(16)</sup> provide a reliable force and results. Thermoplastic orthoses, such as the Colello orthosis<sup>(17)</sup>, and designs described by Shah, Lopez et al<sup>(18)</sup>, and Lee and LaStayo<sup>(14)</sup> also provide reliable stretch, holding people at end-of-range.

The proposed mechanism of sustained stretch via mobilisation orthoses allows lengthening adaptation of the soft tissues. Consequently, duration of stretch is critical. Flowers and LaStayo<sup>(19)</sup> and Glasgow, Fleming, et al<sup>(20)</sup> have examined this in detail relating to the proximal interphalangeal joint and total end range time (TERT). Most hand therapists and surgeons would be very familiar with Capener and other mobilisation orthoses for the PIP joint.

The same principles apply to forearm rotation. In many upper limb joints, the most efficacious stretch by far, is one which lasts for hours, giving tissues a stimulus and time to adapt.

Despite the evidence supporting their use, our clinical experience tells us that these orthoses are under-utilised. So, what are the barriers? A reliable orthosis is often not easily accessible, and custom-making one in the clinic that reliably holds a firm stretch at end-of-range is technically demanding and time consuming. These are especially barriers for clinicians who may be inexperienced with these orthoses. Fabricating a reliable design, such as a Colello orthosis<sup>(17)</sup>, remains time consuming for even the most experienced therapist.

From a patient's perspective, cumbersome designs are often not well tolerated. Patients report they don't like to wear them or that they find it difficult to fit in the required time in order to achieve gains in range. The bulk and position make most orthoses hard to wear and usually prevents function of the entire limb. If patients are unable to achieve a sufficient number of hours per day, the tissues do not adapt<sup>(21)</sup>.

We set about designing a patient-friendly option which also provides a reliable stretching force, to achieve optimal outcomes. The result is the One-80° Pronosupinator. The hinged elbow articulation allows free elbow flexion and extension. The wearer's digits are free, allowing them to hold items in their hand and briefly perform tasks whilst wearing the One-80° Pronosupinator (Fig. 1).

When the task is complete, it promptly and firmly stretches them back to end-of-range (Fig. 2). The soft wrist cuff allows some wrist flexion and extension, making function easier. The light-weight aluminium frame allows it to apply ample stretching torque, while weighing under 400g (0.9lbs). This means the

patient can wear the One-80° Pronosupinator for hours of their day, while still using their hand for brief function. They can go about their activities and only have the discomfort of constant stretch. From a therapist perspective, the One-80° Pronosupinator is ready-to-go and easy to adjust. One size can be adjusted to fit most people (Fig. 3). And it is easily adaptable for use on either left or right; for pronation or supination. A single orthosis can be in the clinic cupboard ready for a 2-3 minute customisation for the next patient who presents with stiffness. Patients are happy to wear it, finding they get the best result for the least effort and inconvenience (Fig. 4). Clinicians are reporting their patients typically achieve improvements in keeping with the 40° to 50° suggested in the literature<sup>(14, 15, 18)</sup>.

We have been further encouraged by recognition of the One-80° Pronosupinator as a finalist in IFSHT Cristina Alegri Award for Innovation in Hand Therapy in 2019. It was also the winner of the Physiotherapy Research Foundation's inaugural Pitchfest in 2019.



**Figure 1: The One-80° Pronosupinator is a dynamic mobilisation orthosis for forearm rotation. It applies a dynamic stretch for supination or pronation whilst allowing free elbow flexion and extension, and free use of the digits.**



**Figure 2: Whilst wearing the One-80° Pronosupinator, patients can actively move out of a stretched position (eg from supination to pronation) and are then dynamically stretched back into position when they relax. The orthosis can be applied in either a supinated (pictured) or a pronated position.**



**Figure 3: One size fits most people. The distal length of the orthosis can easily be adjusted to the desired forearm length.**



**Figure 4: The wearer can briefly move out of a stretch position for function. This makes it easier for patients to achieve the required total end range time for soft tissue adaptation.**

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# IFSHT News

## November 2020



International Federation of Societies for Hand Therapy

www.ifsht.org

### NEW! IFSHT MEMBER-TO-MEMBER MENTORING PROJECT

The IFSHT is excited to announce the IFSHT Member-to-Member Mentoring Project. Purpose: IFSHT has seen significant growth in the Associate and Corresponding Member categories, who demonstrate a passion for hand therapy. The IFSHT mission to develop and enhance the practice of hand therapy recognizes the need to address issues that these countries face in forming a national hand therapy society comprised of OT and PT hand therapists. Survey: All IFSHT delegates were invited to participate in a survey regarding hand therapy development in their country. Full Member countries shared how their society was formed and its current scope of activity.

Associate and Corresponding member delegates shared their opportunities and issues for growth of a professional society. Based on the survey responses, one or two full member countries have been paired with associate or corresponding member countries to foster a mentoring relationship. Guidelines, outcome and timelines: each participating country has been given a guideline for the mentoring relationship and IFSHT will be asking for feedback every six months. We hope this initiative helps to further the development of hand therapy around the world as per the IFSHT mission.

VIRTUAL CONGRESS



EFSSH OnLine! Week

SEPTEMBER 1-4 | 2020



## FEEDBACK FROM EFSHT VIRTUAL CONGRESS: 1 – 4 September 2020

From 1 to 4 September 2020, the “EFSHT online! Week” took place. It was organised by the Swiss Society for Hand Therapy on behalf of the European Federation of Societies for Hand Therapy (EFSHT), and took place instead of the triennial European Hand Congress (FESSH-EFSHT congress), which had to be cancelled due to the Covid-19 pandemic.

The therapists program consisted of 8 focused symposia on various important topics of hand rehabilitation (fractures, tendon injuries, joint instabilities, chronic hand conditions, neuropathic pain, amputations, as well as evidence-based practice and client-centred aspects). The symposia were broadcasted live, with a panel discussion held by the speakers and live question-and answers from the audience, which were submitted via the chat-function of the congress platform. During three „Ask the Expert“ sessions, participants were able to ask their burning questions to experts in their field, respectively. This new format was very successful, and the discussions were lively and provided new insights into outcome measurements, relative motion splinting and CRPS. On the congress platform, numerous free papers and e-posters from therapists and surgeons could be watched „on demand“. Participants were allowed to rate the free papers, thus nominating the two winners of the EFSHT Free Paper Award. There was also a virtual exhibition, where participants could exchange with the industry partners of the EFSHT congress.

Of course, the social contacts and networking that are so important in a congress were sorely missed, but a virtual party on Instagram was organised, to celebrate together safely from a distance. The five best posts even won a prize, which was sent out to Brazil, Belgium, Ukraine, Ireland and Switzerland! The first edition of the EFSHT online Week has been a great success - welcoming 400 participants from 46 countries from all over the world! It has been a new and very instructive experience, enabling on-going professional education and exchange in these very unusual times.

Vera Beckmann-Fries and Marianne von Haller (EFSHT online! Week - Congress Presidents)

## COVID 19 & HAND THERAPY: MESSAGE FROM THE IFSHT PRESIDENT, NICOLA GOLDSMITH (2019 – 2022)

The world pandemic Covid-19 has interrupted our lives in 2020 in ways that none of us could have imagined. It has been heart-wrenching hearing the stories our members sent to us about the extraordinary changes hand therapists have been faced with. This includes both trying to deliver quality care in almost impossible situations and being transferred to work with Covid patients. The Executive of IFSHT want to send our best wishes to you all. May this all pass and, when it does, we look forward to seeing you all in London 2022. Stay safe and stay in touch. Warm wishes, Nicola Goldsmith, President, IFSHT 2019-2022

# Art Exhibit # 13



Credit Card Holder - carved wood

# Member Society



## ISRAELI SOCIETY FOR SURGERY OF THE HAND (ISSH)

In the early 1960's, a few members of the Israeli Orthopedic Society and the Israeli Plastic Surgery Society developed a special interest in surgery of the hand. Professor Isidor Kessler was the first to convert his occupation from general orthopedics to surgery of the hand as his primary and then sole profession. In order to do so he first studied under the Boyes group in California, where he was also active in the development of the Niebauer Prostheses.

After his return to Israel, he opened the first service for hand surgery at the Kaplan Medical Center in the city of Rehovot. The largest initiative to advance hand surgery in Israel was taken, without a doubt, by the late Professor Kessler. His work on topics such as lengthening of fingers, repair of flexor tendons, among others, are international milestones.

In 1967, after the Six-day War, many upper limb injuries needed efficient and professional care. There were other wars to come ie. the War of Attrition and the Yom Kippur War. Over 10,000 were injured, of which about a third suffered upper limb injuries. To deal with these injured, the Ministry of Health founded five medical units dedicated to surgery of the hand.

Today there are Hand Surgery Units in all medical centers in Israel as well as a Department of Hand Surgery at the Sheba Medical Center in Ramat Gan.

According to guidelines of the scientific board of the Israeli Health Organization, in order for the Center to initiate a Hand Surgery Fellowship program, there must be at least two full-time attending surgeons. In 1975, hand surgery activities in Israel became known internationally following the first international symposium with the participation of the American Association for Surgery of the Hand as well as a few other societies. In 1979 another international symposium was held in Tel Aviv.

In 1989, the Israeli Society for Surgery of the Hand (ISSH) was founded and hosted the fourth meeting of the International Federation of Societies for Surgery of the Hand in Tel Aviv. Later on, more meetings were organized in cooperation with the Greek, Italian and French Societies.

In 2000 the Israeli Society celebrated its founding with an international convention in Jerusalem with the participation of Societies from around the world.

Since 1990, the Israeli Medical Association acknowledged Hand Surgery as an official specialty. In order to be registered as a consultant Hand Surgeon in Israel, a fellow must undergo an orthopedic or plastic surgery residency, followed by a fellowship in hand surgery. The fellowship lasts two and half years, during which the candidate must participate in a specified list of surgical procedures as well as participate in symposiums, journal clubs and academic activities. The fellow must also pass written and oral board exams in hand and micro-vascular surgery.

The largest Department of Hand Surgery was founded by Professor Joel Engel in the Sheba Medical Center, a large public medical center in Israel. Engel finished his residency at the Sheba and later his hand surgery fellowship with Tubiana in Paris, Nalebuff and Tupper in the United States and Vanio in Finland.

The late Professor Weinberg founded the Hand Surgery Unit at the Hadassah Medical Center in Jerusalem. He and his associate Professor Neuman, the chief of Plastic Surgery, were among the founders of Hand Surgery in Israel.

Professor Reiss founded the Hand Surgery Unit at the Ziv Medical Center in Safed, after which he continued to work at the Rambam Medical Center in Haifa. He is one of the developers of the Kullen Nicole Reiss prosthesis for metacarpophalangeal joint arthroplasty. This prosthesis has had great success in the treatment of patients suffering from arthritis in Great Britain.

Dr. Karev took over as head of the Department of Hand Surgery at the Kaplan Medical Center after Prof. Kessler. He did his fellowship training in the United States under Kleinert.



Delegates of the ISSH at the IFSSH Congress in Berlin June 2019.

Since the 1970's, these founders of Hand Surgery in Israel, taught and guided a generation of students who would grow to become the leaders of hand surgery in Israel and would serve the public with innovative treatment of diseases and injuries of the upper limb.

The Israeli Society organizes two annual meetings, and hosts numerous foreign guests each year. It grants two annual prizes, one for the best achievement in the fellowship board test and one for the best study presented by a young surgeon at an international meeting.

In 2012 the Israeli Hand Therapist Society was formed and was subsequently recognized by the International Federation of Societies for Hand Therapy. The Hand Therapists are an integral part of hand surgery in Israel.

The Israeli Society is a member of the International Federation of Societies for Surgery of the Hand (IFSSH), as well as an associate member of the Federation of European Societies for Surgery of the Hand (FESSH). There are approximately 50 active members in ISSH.

In 2017, a joint meeting with the German Hand Society was held in Jerusalem, including the participation of the Secretary General of FESSH. In 2019, the Israeli Society was the guest society at the annual meeting of the Brazilian Society for Hand Surgery in Gramado, Brazil. ISSH continues to nurture international cooperation, advancing the care of hand surgery patients and the education of young surgeons, promoting research initiatives as well as public awareness of our profession in Israel.

Hand Surgery is no longer a profession in the making, but a well-recognized specialty with a short past, but a great future.

### Joel Engel and Shai Luria

The Israeli Society for Surgery of the Hand

## THE ACUTE MANAGEMENT OF

# *Unstable Intra-Articular Fractures of the Base of the Middle Phalanx: A Systematic Review*

THE JOURNAL OF HAND SURGERY (ASIAN-PACIFIC VOLUME) VOL. 23, NO. 04, PP. 441-449 (2018)

### 1. What were your main reasons for writing this article?

Thank you so much for your interest in my work. The research involved in this Systematic Review was performed for my Dissertation in Master of Science in Trauma and Orthopaedics. I focussed heavily on the correct methodology when performing Systematic Reviews and received a distinction for my Dissertation. I hope the detailed explanation of how to perform a thorough Systematic Review will be useful to other researchers. I chose this topic as these fractures were such an unknown quantity. They often occurred in young healthy patients and had devastating effects on movement, often leading to time off work or even change of career or sporting hobbies. I felt that the disparate and confusing descriptions and management options would benefit from a Systematic Review to see if a sensible treatment algorithm could be generated.

### 2. What are the most interesting/important results and conclusions of your article?

Unfortunately my review shone a light on the generally poor quality of Orthopaedic scientific research papers. Studies were of low quality, providing only Level IV Evidence. There was significant selection, publication and detection bias throughout. Confounding factors included hand dominance, surgeon skill, pain relief and rehabilitation regime. Different terms and techniques were used by different surgeons making it very difficult to directly compare outcomes.

### 3. What should all hand surgeons (and or hand therapists) reading your article understand about the findings of your research?

The overriding message from my research is that the range of movement will be reduced in the finger regardless of management. More complex injuries

and open procedures were more likely to result in more stiffness. Aggressive hand therapy reduced stiffness across the board, and some surgeons who were experienced with open techniques and instigated intensive hand therapy achieved excellent results. Regardless of stiffness, patients were able to regain good function in their hand, and all were able to regain near full grip and pinch strength. Unfortunately many patients did have on-going pain despite good function, which often correlated with inadequate joint reduction. Every study that performed radiographs at follow-up showed degenerative changes in the joint, suggesting that this happened at the time of injury, and would likely have long term consequences for the patient.

A simple algorithm for management would therefore suggest Extension Block Pinning (EBP) for more stable fractures, as simple is usually best in hand surgery. External fixation for unstable fractures that would not respond to EBP, but these must be monitored closely for infection or slipping of reduction as swelling improves. More complex injuries requiring open reduction or hemi-hamate arthroplasty must be reserved for experienced surgeons who have shown good outcomes using these techniques. And all interventions rely heavily on focussed, intensive hand therapy for their success.

A simple flowchart was published by Caggiano et al in 2018. ("Management of Proximal Interphalangeal Joint Fracture Dislocations" Hand Clinics, 2018-05-01, Volume 34, Issue 2, Pages 149-165

Nicholas M. Caggiano MD, Carl M. Harper MD and Tamara D. Rozental MD.

Fig. 5 Treatment algorithm for dorsal PIP joint fracture dislocations. CRPP, closed reduction and percutaneous pinning; ORIF, open reduction and internal fixation)

### 4. Will you be conducting further research/publishing further work on this topic? If so, what will it entail?

Yes, it will include developing a treatment algorithm for dorsal PIP joint fracture dislocations as well as research

in the role of CRPP, the efficacy of closed reduction and percutaneous pinning, and open reduction and internal fixation.

Improvements in treatment must rely on better data. Since my research was performed in 2016 there have been very few new publications providing detailed outcomes on the management of these injuries. This is partly due to low numbers of these injuries, but also publication bias which often looks for large studies with good outcomes. I feel the only way we will improve our management of these rare but devastating injuries, is with an International database with standardised classification and management protocols, so that direct comparison can be made between outcome measurements. In the mean time we must all do the best we can with limited data, and appropriate counselling of the patient. And yet again in hand surgery, we must rely heavily on our excellent hand therapists to achieve the best outcomes for our patients.



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# Eponyms of fractures: personal names

I like the Beatles. One of the funniest and most ironic Beatles' songs is "When I'm Sixty Four". Today this song is especially relevant to me, because I am the same age as the hero of this song. It is not surprising that with age, interest in the history of medicine in general and the history of surgery in particular increases.

The life of a modern person is impossible to imagine without eponyms. The term "eponym" in translation from ancient Greek means, "who gives a name." In fact, eponymous names are our history and recognition of the merits of outstanding scientists, researchers, travelers, heroes, imperators, and extraordinary people. Eponyms are widely represented in almost all areas of human life. A large number of eponyms are in engineering, mathematics, chemistry, astronomy and geography.

There are many eponyms in medicine. Medical doctors understand each other clearly when they use eponymous terms, for example Lister's tubercle, Kernig's symptom, Reiter's syndrome, Parkinson's disease.

In the Orthopaedic surgery section of clinical medicine there is also a large number of eponyms, including in the description of bone fractures. For several centuries, eponyms were a convenient basis for communication between medical doctors with different specialties.

Information about eponyms of bone fractures, presented in various textbooks, manuals and periodical editions, were often incomplete, inaccurate, and sometimes controversial. Introduced incorrectly in one publication, the error may be replicated in the next publications.

It confuses and hinders analysis, comparison and discussion of the results of treatment of a number of "eponymous" fractures.

In the available literature and Internet resources I have encountered a description of 60 of the most established eponyms of human bone fractures and published a short tutorial guide with pictures of each fracture for students and young surgeons (In Russian) (Fig. 1).

The bright publication of T.B. Hunter et al. in the "Radio Graphics" was inspiring for me [1]. The authors collected about 40 eponymous fractures in the upper extremity, lower extremity, head, spine and pelvis.

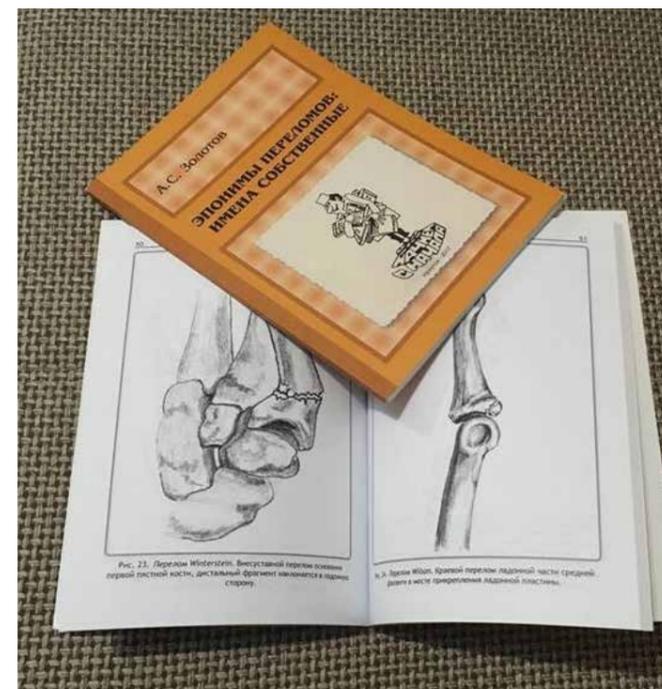
Most eponymous fractures in my list (26) occur in the hand and upper extremity:

Hill-Sachs	Skillern
Bankart	Colles
Holstein-Lewis	Smith
Malgaigne	Barton
Posada	Hutchinson
Laugier	Moore
Kocher	De Quervain
Mouchet	Bennett
Malgaigne	Rolando
Monteggia	Winterstein
Brecht	Seymour
Essex-Lopresti	Wilson
Galeazzi	Busch

Eponyms of bone fractures have been described by surgeons and radiologists who lived and worked in the 18th-20th centuries. They were mainly experienced, mature, outstanding specialists from countries with a high level of development of traditional medicine and often representatives of reputable surgical schools (Europe and North America).

Information about eponyms is very useful for students and young doctors of different specialties, including hand surgeons, in the study, diagnosis and treatment of bone fractures. Furthermore, this knowledge is necessary to understand the history of our specialty. Knowledge of eponyms helps in communication.

Unfortunately, it was not possible to find detailed complete information about the life and achievements of many authors of the eponyms. I would like to continue this work, collect additional information about the above-mentioned famous doctors, revise and re-publish a tutorial guide in English (free on-line edition).



**Fig. 1 Tutorial guide with pictures for students and young surgeons (In Russian).**

**“I would be grateful to readers of the IFSSH Ezine for links to any biographical sources...”**

I would be grateful to readers of the IFSSH Ezine for links to any biographical sources, texts, photographs of the authors of the eponyms of fractures of the bones of the hand and upper extremity. Most of all, I would like to get good photos of the authors of eponymous fractures.

#### Reference

- Hunter T.B., Peltier L.F., Lund P.J. Musculoskeletal eponyms: who are those guys? // Radio Graphics. – 2000. – Vol. 20, N 3. – P. 819–836.



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# Simple rotation osteotomy for congenital radio-ulnar synostosis



Congenital synostosis occurs in various parts of the body and may influence joint motion or alignment. Some may cause functional impairment.

Congenital proximal radio-ulnar synostosis impairs the pronation-supination of the forearm. Moreover, most patients with congenital synostosis have a pronation contracture, which, when severe, causes difficulties in washing the face, using chopsticks, and caring for themselves.

Great efforts have been made to mobilize the stiff forearm. Osteotomy with vascularized soft tissue interposition successfully separates the radius from the ulna. However, the supinator muscle inactivity and the radio-ulnar deformity do not allow for active pronation-supination motion. Results unfortunately show deteriorating forearm motion and radial head dislocation or subluxation, which are different from those of post-traumatic radio-ulnar synostosis. Approximately 70% of radio-ulnar synostosis

cases are associated with posterior radial head dislocation, which causes extensive radial bowing and severe forearm pronation contracture. Conversely, cases with anterior radial head dislocation show a relatively straight radius and a contracture in an almost neutral position; moreover, such patients have few difficulties in performing activities of daily living (ADL) and often do not seek medical care.

Other studies have reported that patients with a stiff forearm in the neutral position, and who have difficulties in performing ADL, were treated with a rotation osteotomy in a pronated position. Forearm derotation osteotomy has been performed since the 1970s; however, proximal site osteotomy may cause various complications such as nerve palsy. Various other osteotomy techniques have been reported. Since 2000, we have performed a rotation osteotomy at the radial diaphysis. The surgical procedure is simple and lasts only about 30 minutes.

A 4-cm skin incision is made at the mid-forearm, and care is taken to protect the radial sensory nerve. The pronator muscle insertion as well as the periosteum is split longitudinally. The periosteum is then circumferentially detached from the bone. The edges are marked using a strong suture. A transverse radial osteotomy is performed within the periosteal sleeve. The radius is manually rotated until the forearm is in a neutral position.

The position is temporally maintained with a Kirschner wire (k-wire). The periosteum is closed. After the skin closure, a long-arm cast is applied with the forearm in the neutral position and the palm in almost full supination. Thereafter, the k-wire is removed and the correction is maintained with cast fixation alone. The cast is changed at intervals of 2 weeks with the forearm in a neutral position for a total of 5-6 weeks. In all our patients, rapid flexion-extension motion recovery followed after the cast removal. Postoperative rehabilitation was therefore unnecessary.



Mid-term results showed almost no complications, and the correction was maintained in the long term. This simple, minimally invasive surgical procedure is especially applicable for patients with comorbidities. In a few patients, who were active athletes, some experienced a little pain after exercise. This pain occurred due to the development of ulno-humeral joint instability during exercises when performing pronation-supination motions.

Good results depend on effective bone healing and remodeling; therefore, this technique is only recommended for patients aged less than 12 years.



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## IFSHT REPORT TO IFSSH, SEPTEMBER 2020

Nicola Goldsmith, President IFSHT

### EXECUTIVE COMMITTEE

At the IFSHT Congress in Berlin, the delegates from our member countries voted in the next executive officers. President, Nicola Goldsmith (U.K.); President-Elect, Peggy Boineau (U.S.); Secretary General, Maureen Hardy (U.S.); Treasurer, Stacey Doyon (U.S.); Information Officer, Susan de Klerk (South Africa) and Past President, Anne Wajon (Australia). These six hand therapists will lead IFSHT from 2019-2022. All meetings are virtual apart from one at the Triennial Congress and one in between. All six descended on London in February 2020 for a hard working three days (thankfully just before Covid-19 hit) and the goals and priorities were set for the three-year period.

### MAIN GOALS 2019-2022

- Work with and support the British Association of Hand Therapists (BAHT) towards the next IFSHT Congress in London 2022
- Initiate the Member-to-Member mentorship programme
- Launch new newsletter publication (R.E.A.C.H)
- Replace the Commercial Membership category and develop a sponsorship process, options and recognition
- Commission, design and implement a new website
- Review all grants and awards
- Develop Publications Committee

### NEXT IFSHT TRIENNIAL CONGRESS

The two scientific co-chairs are always nominated one by the host society, BAHT and one nominated by IFSHT. Dr Fiona Sandford, Consultant Hand Therapist, St Thomas' Hospital NHS Trust, London and Dr Helen Buchanan, Associate Professor, University of Cape Town, South Africa have taken these vital roles and we thank them in advance for all the hard work they are already putting in.

These two amazing leaders in the world of hand therapy are already working hard with The British Society for Surgery of the Hand (BSSH) to ensure the congress has broad and applicable content and a large component of combined surgeons and therapists' sessions. They have built an international scientific committee and doing the same now for an abstract committee. Currently, the plan is for combined sessions on extensor and flexor tendons, sports injuries, outcome measures, hand surgery and hand therapy partnerships around the world and prevention of hand injuries. There will also be surgeons participating in the therapy sessions on tendinopathies and the musician's hand. The UK is proud to have close collaborative working of the surgeons and therapists and the intention is to showcase this partnership throughout.

### IFSHT MEMBERSHIP

IFSHT now has 36 full members. All individual members of the full member societies are automatically members of IFSHT and therefore IFSHT represents approximately 10,000 hand therapists worldwide. We also have seven associate members and eleven corresponding members, including the welcome addition of Ethiopia and Nigeria in this last year. We are very much looking forward to working with these countries to support the development of our speciality in their countries.

Council voted to dissolve the category of membership "Commercial Membership" and have the relationships with our supporting commercial companies on hold. We are exploring a range of sponsorship options in return for a spectrum of exposure opportunities. IFSHT aims to have this model complete by the end of 2020.

### COMMUNICATION

IFSHT is making major changes to our communication channels in the next six months. Until now, we have been sending out the:

- Update - A quarterly newsletter with information on member countries, major events and IFSHT activities published on our website and in the ASSH and BAHT journals
- Connections - A newsletter sent by e-mail to those signed up to receive it. These two newsletters are being replaced by a new combined quarterly publication called "R.E.A.C.H.". REACH stands for research, education, achievements and clinical/clinicians (working) in hand and upper extremity. A new committee has been set up to support this venture.
- Website - We have commissioned a new website from a UK developer. This will provide a modern look, enhanced functionality and increased interaction. New functionality includes the ability to manage our invoicing and payments for fees from member countries automatically. We would be delighted to share this information and our in-house expertise with IFSSH and recommend our developers should IFSSH be contemplating a new website. Cross-site links would help both websites reach their audience.
- Ezine. Susan de Klerk is doing a superb job of recruiting articles for EZINE and working with Ulrich Mennen. IFSHT value this publication for instilling a close working relationships between the two professions.

### GRANTS

**Evelyn Mackin Grant:** Sponsorship of a therapist/s from a developing country to attend the triennial congress. IFSHT will be looking to reach out for applicants during 2021. IFSSH has many member countries who do not have IFSHT membership. Perhaps the IFSSH delegates from those countries might have therapists to recommend?

**IFSSH/IFSHT Triennial Congress Grant:** We will be opening applications for this in 2021 and hope to support a similar number, or more, therapists to attend London 2022. Eighteen were supported in 2019. Thank you to IFSSH for your contribution to this grant.

**IFSHT-IFSSH International Hand Therapy Teaching Grants:** Three teaching grants were awarded in the past year:

- Debs Stanton, UK, travelled to Malawi to teach in July 2019
- Shrikant Chinchalkar, Canada, travelled to Sri Lanka to teach in February 2019
- Pascale Smith, UK who had planned to travel to teach in Sierra Leone in June 2020 but plans were disrupted by the pandemic

### MEMBER-TO-MEMBER MENTORING SCHEME

Owing to the outbreak of Covid-19, we have delayed the announcements to all member countries about the mentoring scheme. Each full member has been allocated either a corresponding or associate country to support in their development of hand therapy. We will be writing to each participating country with an outline of intent and the pairings soon. We are hopeful that this will help our developing countries move forwards with the growth of hand therapy in their country.

In the interim, many of our member countries sent information about how they are coping with Covid-19 to us and we have posted this on our website. Do check it out. It is fascinating. <https://ifsht.org/page/hand-therapy-and-covid-19>

**THE 12TH ASIAN PACIFIC FEDERATION OF SOCIETIES FOR SURGERY OF THE HAND (APFSSH) AND THE 8TH ASIAN PACIFIC FEDERATION OF SOCIETIES OF HAND THERAPISTS (APFSHT)**

The year 2020 has been a very active year for the Asian Pacific Federation in spite of the pandemic. The 12th Congress of the Asian Pacific Federation of Societies for Surgery of the Hand (APFSSH) and the 8th Congress of the Asian Pacific Federation of Societies of Hand Therapists (APFSHT) was held in Melbourne from 11 to 14 March 2020 with Dr. Anthony Berger as the Organizing Chairman. In spite of the travel restrictions and the ban on flights from many countries of the Asian region, there were 911 registrants at the conference. This was a record attendance and the conference was conducted in an extremely nice manner. Prof. Wayne Morrison delivered the "Tajima Oration" entitled "Replantation, transplantation and beyond- experience and observations".

On similar lines as the International Federation of Societies for Surgery of the Hand (IFSSH) and the American Society for Surgery of the Hand (ASSH) a new lecture termed President's Invitation Lecture was introduced at the APFSSH and Dr. S. Raja Sabapathy delivered this lecture with the title "Building an Institution and Beyond". Dr Stevan Moran, the Inaugural Harold Kleinert Professor of the IFSSH participated in the APFSSH at Melbourne as part of the IFSSH commitment.

When the APFSSH meeting concluded, the delegates just had time to get back to their countries. Perhaps the Melbourne APFSSH was the last of the major in-person Hand Surgery congresses in the world before the Covid19 pandemic made academic meetings virtual for the foreseeable future.

At the Executive Council and Delegates Meeting many important decisions were taken based the resolutions that were passed at the Cebu Conference of the APFSSH in November, 2017. The main issue was the decision on a location for the Headquarters of the APFSSH. After considerable deliberations, Singapore was chosen. For the purposes of registration of the APFSSH as a non-profit body and to adhere to the laws of the land a new constitution was drafted and was adopted unanimously.

This facilitated the registration of the APFSSH and the opening of a bank account for APFSSH.

The Hong Kong Society for Surgery of the Hand (HKSSH) was kind enough to transfer US \$ 20,000 out of their savings from a conference held in Hong Kong. Establishment of the Head Quarters and starting a bank account will help in the efforts to take care of many educational initiatives of the APFSSH.

The following are the members of the Executive Council for the next period:

President	- Dr. S. Raja Sabapathy, India
President Elect	- Dr. Anthony Berger, Australia
Immediate Past President	- Dr. Goo Hyun Baek, South Korea
Secretary General	- Dr. Fuminori Kanaya, Japan
Treasurer	- Dr. Alphonsus Chong, Singapore

Members at Large:

Dr. Sandeep Sebastin, Singapore, Dr. Michael Boland, New Zealand and Dr. Norimasa Iwasaki, Japan

To ensure more participation, we decided to have a maximum of 5 members at large and therefore 2 more will be co-opted in the coming year. At present 13 countries of the Asia Pacific region are members of the Federation.

The next meeting of the APFSSH will be held in Singapore from 31 May to 3 June 2023.

Dr S Raja Sabapathy,  
President

Dr Fuminori Kanaya,  
Secretary-General

September 14, 2020

### Hand and Wrist Biomechanics International (HWBI)

[www.hwbi.org](http://www.hwbi.org)



The hand and wrist represent one of the most challenging structures in the study of biomechanics, as well as in the evaluation of many biomechanical principles. Hand and wrist biomechanics has been somewhat under developed in comparison to mainstream biomechanics research over the past century. While numerous biomechanical studies have been initiated by surgeons and engineers, collaborative efforts among scientists and clinicians are required in order for continuing progression in research and further improvement of treatment modalities and outcomes.

For 28 years, the International Symposia on Hand and Wrist Biomechanics have provided the opportunity for global scientific exchange and mutual encouragement among basic science and clinical investigators. In 2012, the International Advisory Board decided to form Hand and Wrist Biomechanics International (HWBI) to further enhance the development of hand and wrist biomechanics and its clinical applications. It is our hope that through the structured organization of HWBI, research activities related to hand and wrist biomechanics will be elevated and clinical translation will be improved. Currently, HWBI has 81 members from 23 countries. We invite those who are interested in hand and wrist biomechanics to join HWBI membership by filling out the online form (<https://www.hwbi.org/membership>). HWBI membership is free.

HWBI is affiliated with International Federation of Societies for Surgery of the Hand (IFSSH) and the International Society of Biomechanics (ISB). With these affiliations, the HWBI benefits from IFSSH's and ISB's established excellence as premier international organizations and their vast umbrella networks in promoting basic science and clinical applications. In turn, the HWBI contributes its specialty knowledge to the broad fields of hand surgery and biomechanics. HWBI regularly organizes symposia in conjunction with IFSSH and ISB congresses.

Due to COVID-19, the Organizing Committee decided to hold off the *20th Annual New Technology in Upper Extremity Surgery: The Cutting Edge With Advancing Translational Research and Hand and Wrist Biomechanics International (HWBI) Symposium* during June 14-17, 2020 in Cleveland, Ohio, USA. This same event is rescheduled to take place during May 2-5, 2021 in Cleveland, Ohio, USA. Invited faculty speakers and free paper presenters committed to the 2020 meeting are expected to join us in 2021. See the enclosed flyer and website (<https://www.hwbi.org/symposium/2021>) for more information.

As an Allied Organization of IFSSH, HWBI has contributed to previous triennial congresses by organizing biomechanics symposia/sessions. HWBI will continue to participate in IFSSH 2022 to assist with the biomechanics topic and program.

## 20th Annual New Technology in Upper Extremity Surgery: The Cutting Edge With Advancing Translational Research & Hand and Wrist Biomechanics International (HWBI) Symposium

Cleveland, Ohio, USA

May 2-5, 2021

[www.hwbi.org/symposium/2021](http://www.hwbi.org/symposium/2021)

1



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# 2022 IFSSH-IFSHT Congress, London UK

Preparations are continuing apace for the 2022 IFSSH-IFSHT Congress in London:

## Date

As previously indicated, there has been a change of date to earlier in June.

The venue is booked for 5 - 11 June 2022, with the Congress proper running 6 - 10 June.

## Venue

The new venue, the ExCeL Centre <https://www.excel.london>, which is situated in London Docklands, was

one of the venues for the 2012 London Olympics. It has significant functional advantages. ExCeL has a horizontal footprint and so will be very easily navigable during the Congress. It is a huge, versatile venue, with easily enough space to accommodate 4000 delegates, or more if necessary and can provide a vast central space for industry.

Accommodation for delegates in the vicinity of ExCeL is plentiful and will be less expensive than in central London. If delegates decide that they would prefer to stay in central London, then transport options from the centre to ExCeL are good. There is the Docklands Light

Railway and also an underground tube connection, due to be completed next year. If people want to take a particularly scenic route then there are river boats departing from major London piers every 20 minutes <https://www.thamesclippers.com/route-time-table>. All in all, we see all of the change of venue as a very positive development.

## Assisztencia

We have engaged the services of Assisztencia to help us organise and run the Congress. I have had experience in dealing with Assisztencia over the last few years during my time on FESSH Council and I have found them to be invariably extremely competent and efficient. They will be a great asset.

## Programme

The programme committee, led by Jonathan Hobby and co-chaired by Wee Lam, is meeting regularly by Zoom, and the programme is rapidly taking shape. Suggestions have been sought from an International panel of 17 representatives from each of the world's continents. Their suggestions have been very helpful and are helping us to shape the programme.

## Instructional Course & Book

There will be a core series of plenary instructional lectures, the topic for which is Tendon Disorders of the Hand and Wrist. A publishing deal has been negotiated with Thieme to produce an accompanying book, edited by Grey Giddins, Dean Boyce and David Shewring, which will be included in the registration fee for surgeons. Invitations to chapter authors/speakers have been sent and have all been accepted.

## Symposia

There also will be a range of other instructional courses and symposia covering the whole range of hand surgery

## FESSH

After the successful meeting in Berlin and with the Congress being held for a consecutive time in Europe, there will be an inevitable impact on FESSH. This Congress will therefore be a combined meeting with

FESSH XXVII. We will be providing facilities for all of the requirements of FESSH, including the EBHS Diploma examination.

## Budget

We have a preliminary budget with a planned break-even attendance of 2,500. We are aiming to keep the registration fees at the same level as Berlin 2019. We are hoping to support applicants from low income countries with some sponsored places. Options are being explored to safeguard from a COVID type cancellation.

## Social Programme

Opening Ceremony: Ideas are being developed with help from Assisztencia and the Excel centre.

Gala Dinner: We have approached the Old Billingsgate Market as a potential site for this. Maximum seating is 1800.

Other ideas being considered include a pop-up nightclub at the ExCeL and an organised tour of some quintessentially British hostelrys in the City and West End.

## Website

The website for IFSSH/IFSHT 2022 is up and running <https://www.ifssh-ifsht2022.co.uk>. It is constantly being developed and there are several pages yet to be written.

We look forward to welcoming you to London in 2022...



**David Shewring**

Chair, Organising Committee  
IFSSH & IFSHT 2022

