THE SOUTH AFRICAN SOCIETY FOR SURGERY OF THE HAND

# 44тн CONGRESS













KWA MARITANE BUSH LODGE PILANESBERG, NORTH WEST PROVINCE SOUTH AFRICA

30 AUGUST - 1 SEPTEMBER 2013



### UPPER LIMB SOLUTIONS.



24-HOUR EMERGENCY NUM 3ERS

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## Welcome Message from the President



### Johan van der Westhuizen

#### Dear Colleagues

Welcome to the North West Province and specifically to Kwa Maritane Bush Lodge.

Rustenburg is known for its Platinum Mines and Sun City for the Pilanesberg Game Reserve.

Congress 2013 promises to be a highlight event. We are fortunate to have three very well known international guests, i.e.

- 1. Alexander Shin, Professor and Consultant at the Mayo Clinic, Rochester, Minnesota USA
- 2. Scott Wolfe from the Hospital for Special Surgery, New York USA
- 3. Greg Bain from the University of Adelaide, South Australia

They will share their vast experience and update the audience on their results.

Do not forget the input of the local speakers. We thank them for their contribution.

I would also like to acknowledge and thank the Trade for their loyal support over many years.

A special word of thanks to Michael Carides for organizing this meeting and to Hendrika van der Merwe for her hard work and input.

Enjoy the congress!

# Welcome Message from the Congress Organiser



### Michael Carides

It gives me great pleasure to welcome you all to Kwa Martane for this, the 44th Annual Congress and Instructional Course of the South African Society for Surgery of the Hand.

The Pilanesberg National Park is home to the "Big Five" with the attractions of Sun City not far away and hope that many of you will be able to take some extra time out to enjoy these surroundings.

I would like to thank all those who have contributed to this meeting, including the trade as always for their loyal and generous support. The record number of submissions this year promises a busy, varied and exciting congress with a special "Boma Braai" evening topping the weekend's social activit es.

We are privileged this year to have Alexander Shin, Scott Wolfe - who returns to our shores once more - and Greg Bain as invited guest speakers. We bid them a warm welcome and hope their visit will be a memorable one.

I wish you all an enjoyable congress.



14th Congress Proyour



### **Philos.** The anatomic fixation system with angular stability.

- Angular stability
- Anatomic design
- Versatile adaptability



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## International Visitor



### Alexander Shín

Born to Korean Immigrant parents, Dr Shin grew up in rural Pennsylvania. His undergraduate studies were at Cornell University, followed by medical school at the University of Pennsylvania, the Oldest Medical School in the United States.

After completing his internship and orthopedic residency at the Naval Medical Center San Diego, he pursued a hand and microvascular surgery fellowship at the Mayo Clinic. He returned to the United States Navy and headed the Hand Division unt I 2001. He then returned to Mayo Clinic to join the Orthopedic Hand Division.

Currently, D<sup>-</sup> Shin is a Professor of Orthopedic Surgery and the Director of the Hand Surgery Fellowship Program. Academically, he is an author of 215 peer reviewed journal articles and over 50 book chapters. He has been awarded multiple basic research grants evaluating nerve regeneration. Dr Shin is an active member American Society for Surgery of the Hand and is currently their Director of Education overseeing the annual meeting, courses and publications programs.

On a personal note, he enjoys gourmet cooking, fine wines and chain sawing trees with the love of his life and wife of 18 years, Patricia. He also enjoys spending his remaining free time with his four children.

## International Visitor



### Scott Wolfe

Scott is currently the Professor of Orthopedic Surgery at Weill-Cornell College, New York. He is also the Faculty Director of Orthopedics at Hospital for Special Surgery where he also serves as Director of the HSS Center for Brachial Plexus and Complex Nerve Injury. His CV reads like a book with nearly 100 peer reviewed bublications, 42 book chapters, and 43 guest lectureships. He has delivered countless presentations at American and International meetings and is involved in numerous research projects and grafts. To all of us he is well known as the current editor emeritus of Green's Operative Hanc Surgery – the iconic textbook of our field.





## International Visitor



Greg Bain

Greg runs an extremely busy private practice in Upper Limb Surgery and is an Associate Professor at the University of Adelaide in The Department of Orthopaedics and Trauma.

He is widely known around the world for his pioneering work on distal biceps rupture, Kienbocks Disease and carpal instability.

He has more than 80 peer reviewed papers to his name as well as more than 30 chapters in Orthopaedic Texts.

As a well respected and acknowledged teacher in Upper Limb concepts we look forward to his lectures and comments.

## Ethics Lecturer



Efraím Kramer

Prof Efraim Kramer is the Head of the Division of Emergency Medicine and Honorary Adjunct Professor of Exercise Science + Sports Medicine, Faculty of Health Sciences at the University of the Witwatersrand.

He is very involved in the field of Ethics in Emergency Medicine and completed his MScMed in Health Law + BioEthics at the Steve Biko Centre for BioEthics at the University of the Witwatersrand.

He is a member of the FIFA Medical Assessment + Research Centre (F-MARC) in Zurich and appointed as the Football Emergency Medicine Advisor to the FIFA Chief Medical Officer for the FIFA Confederations Cub Brazil 2013 and FIFA World Cup Brazil 2014.



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### Trade Exhibitor Floor Plan



- 1 Affordable Medical
- 2 Biomet
- 3 Surgitech
- 4 Stratmed
- 5 Werkomed
- 6 Evolabs

- 7 BoneSA
- 8 Macromed
- 9 SA Biomedical
- 10 DePuy Synthes
- 11 DJO Global



() DePuy Synthes



Printing of official Congress Brochure

Air fare and accommodation: Scott Wolfe

Registration

- Congress bags
- Stationery
- Name tags

Workshop



Air fare: Alexander Shin



Financial contribution to Gala Dinner



Printing of Mini Program

The President and Executive Committee of SASSH would like to thank the trade for their attendance and participation of this event





General Announcements/ Congress Information

### **CPD REGISTER**

- Discovery Health will handle the CPD formalities on a daily basis
- Scanning will be done twice daily
- Approximately 7-10 days post-congress, you will receive notification to download your certificate from the website www.mycpd.co.za. You need to have your log-in and password details available to download your certificate

#### DRESS CODE

- Casual attire for congress sessions, game drive and boma braai
- Smart casual for gala dinner

#### IMPORTANT

- Name badge: It is important to wear your name badge during the congress. Only delegates wearing name badges will be permitted to enter the lecture hall, exhibition area and the social functions
- Please note that the use of **mobile phones** in the lecture hall is not permitted

### INFORMATION FOR SPEAKERS

Keeping to your allocated time is a courtesy to all following speakers. The chairs of the sessions have been instructed to exert tight control and interrupt lengthy presentations. Please make sure you are aware of the time allotted to you for your presentation

Please hand your presentation to the audiovisual technicians at least 3 hours prior to the session in which the presentation is being given. The technicians will be available in the congress venue to receive your material

#### **INFORMATION/REGISTRATION DESK**

The Information/Registration Desk will be situated outside the Auditorium. Please feel free to visit the Desk should you require any assistance

### LANGUAGE

The official language of the congress will be English. No simultaneous translation service will be provided

### **SMOKING**

In accordance with Government Legislation regarding smoking in public areas, kindly note that this venue is a non-smoking area

### TRADE EXHIBITORS

Kindly make every effort to visit all the stands

Teas and lurches will be served in the trade exhibition area

2013 Congress Organizing Committee

Congress Chairman Congress Coordinator Michael Carides Hendrika van der Merwe

Social

Game Drive (Optional)	Friday 30 August 2013 1630-1930 Delegates will meet at the top parking area, next to the tennis courts Dress: casual, warm clothes
Boma Braai	Friday 30 August 2013 1930 Dress: casual, warm clothes Those delegates not going on the game drive but attending the boma braai, will be transferred at 1900 for 1915. Please meet at the main hotel foyer
Congress Dinner	Saturday 31 August 2013
1930 for 2000	Conference Centre Kwa Maritane Dress: Smart Casual

Future Events

#### **ANNUAL REFRESHER COURSE**

2014

February Topic: The Wrist Date 21-23 February 2014 Venue to be confirmed

#### **ANNUAL CONGRESS**

2014

Cape Town 45th Congress and Instructional Course Date: to be confirmed





# Office Bearers

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President Elect

Honorary Secretary/Treasurer

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Executive Secretary/Congress Coordinator

Office

Johan van der Westhuizen

Erich Mennen

Martin Wells

Michael Carides Roger Nicholson Michael Solomons

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### Past Presidents

1969-1971
1971-1973
1973-1975
1975-1977
1977-1979
1979-1981
1981-1983
1983-1985
1985-1987
1987-1989
1989-1991
1991-April 1992
April 1992 – 1993
1993-1995
1995-1997
1997-1999
1999-2001
2001-2003
2003-2005
2005-2007
2007-2009

I Kaplan AC Boonzaier M Singer JH Youngleson TL Sarkin CE Bloch SL Biddu ph WMM Morris LK Pretorius KS Naidco SL Biddu ph BJ van R Zeeman SL Biddu ph JH Fleming U Mennen EJ Bowen-Jones LT de Jager JJ van Wingerden **M** Carides TLB le Roux MC Wells **M** Solomons

## AC Boonzaier

# Memorial Lectures

1997	PROF ULRICH MENNEN
	"In Appreciation of the Hand"
1998	DR JOHN YOUNGLESON
	"Reminiscing the Past"
1999	DR EDWARD BOWEN-JONES
	"Bamba Isandla Qualities of a Leader in Hand Surgery"
2000	PROF KS NAIDOO
	"Overview of Hand Surgery"
2001	DR LT (WIKUS) DE JAGER
	"The Future of Hand Surgery in South Africa"
2002	PROF SYD BIDDULPH
	"The Hand – A Mirror of Disease"
2003	DR JAN VAN WINGERDEN
	"The Joy of Medical Discovery"
2004	DR INGRAM ANDERSON
	"The Hand – Cogitations of a Rheumatologist"
2005	DR MICHAEL CARIDES
	"But, on the other hand"
2006	PROF MICHAEL TONKIN
	"On Surgeons, Heads, Hearts and Hands – A Philosophy"
2007	PROF THEO LE ROUX
	"Hand-outs from the Mind"
2008	PROF ALAN MORRIS
	evolution of the hand"
2000	
2009	"Standing on the Shoulders of Giants"
2010	
2010	"The Analog Digit"
2011	DR MICHAEL SOLOMONS
	"Where do we come from?"
2012	DR ZSOLT SZABO
	"The Human Hand – The Most Beautiful Tool"





## Annual General Meeting

#### Saturday 31 August 2013 1630 - 1700

Venue: Rhino Room Kwa Maritane Bush Lodge (Members only / Slegs Lede)

Welcome Address by the President Verwelkoming deur die President

> 2 Apologies and Proxies Verskonings en Volmagte

3 Minutes of the Previous Annual General Meeting Notule van die Vorige Algemene Jaarvergadering

> 4 Matters Arising from the Minutes Sake wat uit die Notule Voortspruit

> > 5 President's Report President se Verslag

6 Honorary Secretary/Treasurer's Report Ere-Sekretaris/Tesourier se Verslag

7 Proposed Increase in Entrance Fee and Annual Subscription Voorgestelde Verhoging in Intreefooi en Jaargeld

8 Announcement of Executive Committee Members Aankondiging van Uitvoerende Besturslede

> 9 Membership Lidmaatskap

> > 10 General Algemeen

1 1 Next Annual General Meeting Volgende Algemene Jaarvergadering





Scientífic Program

44Th Annual Congress and Instructional Course 30 August – 1 September 2013 Kwa Maritane Bush Lodge, Pilanesberg, North West Province

Friday 30 August 2013

1000-1600	Trade Exhibitor Set-up in Exhibiting Area
1330-1400	Delegate Registration
SESSION 1	MACROMED WORKSHOP
	"New Horizons in Locking Technology"
1400-1600	KinematX Wrist Hemiarthroplasty
	CarpalFix Implants for Four Corner Fusion
	CarpalFix for PIP Joint Fusions
	XMCP Implants for Thumb MP Fusion
1630-1930	Evening Game Drive (optional)
Evening	Boma Braai

#### **Scott Wolfe**

### Saturday 31 August 2013

0730-0750	Delegate Registration	
0750-0800	Welcome and Announcements Michael Carides	
SESSION 2	CHAIR : JOHAN VAN DER WESTHUIZEN	
0800-0810	Thumb CMC Arthritis Treatment by Trapeziectomy and Haematoma Distraction using the Mini Tightrope: 2 Year Results	<u>Martin Wells</u> , A Ikram, C Anley, S Pretorius
0810-0815	Discussion	
0815-0825	Total Elbow Arthroplasty: A Comparison of Cementing Technique and Post Operative Range of Motion between Triceps-detaching and Triceps-sparing Approaches	<u>Rob Dachs</u> , D Chivers, M Fleming, B Vrettos, S Roche
0825-0830	Discussion	
0830-0840	Using Sense Substitution to Enhance Sensory Retraining after a Peripheral Nerve Injury	<u>Evanthia Pavli,</u>
		C van Velze
0840-0845	Discussion	
0845-0855	The "Solomons" Sign in TB Wrist	Michael Solomons
0855-0900	Discussion	
0900-0910	Ultrasound Diagnosis of Carpal Tunnel Syndrome	Erich Mennen
0910-0915	Discussion	
0915-0925	A Novel Technique for Scapholunate Ligament Reconstruction using the Arthrex Mini Tightrope	Steve Carter



0925-0930	Discussion	
0930-0940	A Randomised Trial Comparing Locked Intramedullary Fixation with Anatomically Contoured Locked Plating of Clavicle Shaft Fractures	<u>Reggie King</u> , A Ikram
0940-0945	Discussion	
0945-0955	Reconstruction of the 'Unreconstructable' Median Nerve Defect	<u>Michael Solomons,</u> M Maree
0955-1000	Discussion	
1000-1030	TEA	
SESSION 3	CHAIR : MARTIN WELLS	
1030-1040	Restoring Elbow Extension in Tetraplegic Upper Limb Reconstruction	<u>Francois deV Theron</u> , H Myburgh, E Mennen, M Skeen, W Mann, M Winterbach
1040-1045	Discussion	
1045-1055	Complications of Locked Volar Plating for Distal Radius Fractures in an	James Watt, A Ikram Academic Institution
1055-1100	Discussion	
1100-1110	Anatomy of the Baboon Hand	Erich Mennen
1110-1115	Discussion	
1115-1125	Traumatic Finger Amputations: Experience at the CH Baragwanath	<u>George Oduah</u> , Academic Hospital G Biddulph, MT Ramokgopa
1125-1130	Discussion	
1130-1140	Fragment Specific Fixation: Which Fractures is it indicated for?	<u>Mari Thiart</u> , A Ikram
1140-1145	Discussion	
1145-1155	A Prospective Randomised Controlled Study to Determine the Radiological and Functional Outcomes of "IMN" Fixation of Distal Radius Fractures using a Novel Device, the Sonoma Wrx Distal Radius Nail compared to Volar Locking Plate	<u>Mark van der Kaag</u> , A Ikram
1155-1200	Discussion	
1200-1210	An Atypical Presentation of Glomus Tumour mimicking Medial	Michael Solomons Epicondylitis
1210-1215	Discussion	
1215-1225	A Retrospective Study to Evaluate the Efficacy of Treating Non-unions, Un-nailable and Un-plateable Fractures of the Humerus with a Taylor-spatial Frame	<u>Karl Strauss</u> , S Pretorius
1225-1230	Discussion	

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1230-1330		
SESSION 4	CHAIR : ROGER NICHOLSON	
1330-1340	The Tetraplegic Thumb	<u>Francois deV Theron</u> , H Myburgh, E Mennen, M Skeen, W Mann, M Winterbach
1340-1345	Discussion	
1345-1355	Factors influencing the Compliance of Post-operative Rehabilitation of Flexor Tendon Injury	<u>George Oduah</u> , R Wentzel, T Spark, G Biddulph, MT Ramokgopa,
1355-1400	Discussion	
1400-1410	Grip Strength after Arthrodesis of the Wrist and Four Corner Fusion: A Retrospective Study	<u>M Swart</u> , O Koch, TLB le Roux
1410-1415	Discussion	
1415-1425	An Overview of the Outcomes following the Use of a Passive Motion Protocol in Flexor Tendon Rehabilitation at CH Baragwanath Academic Hospital – An Impetus for Change?	<u>Roxanne Wentzel</u> , E Pavli, C van Velze
1425-1430	Discussion	
1430-1440	Evaluation of an Evidence-based Patient Pathway for Non-surgical and Surgically managed Metacarpal Fractures	<u>Robyn Midgley</u> , A Toemen
1440-1445	Discussion	
1445-1455	Anterior Needle Scope Release for Internal Rotation Contracture of the Shoulder in Obstetric Brachial Plexus Injury: A New Surgical Technique	<u>M Maree</u> , A Horn, S Roche, M Solomons
1455-1500	Discussion	
1500-1530	TEA	
SESSION 5	CHAIR : ANDREW BARROW	
1530-1550	Lunotriquetral Ligament Injuries	Alexander Shin
1550-1600	- Discussion	
1600-1620	Scapholunate Instability	Greg Bain
1620-1630	Discussion	
1630-1700	Annual General Meeting (members only)	
1930 for 2000	Congress Dinner	

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### Sunday 1 September 2013

0730-0750	Delegate Registration	
SESSION 6	CHAIR : MICHAEL SOLOMONS	
0800-0820	Current Concepts in the Treatment of Scaphoid Non-unions	Alexander Shin
0820-0830	Discussion	
0830-0850	SLAC Wrist: New Directions for an Old Problem	Scott Wolfe
0850-0900	Discussion	
0900-0950	SYMPOSIUM: Brachial Plexus Injuries	Alexander Shin Scott Wolfe
0950-1000	Discussion	
1000-1030	TEA	
SESSION 7	CHAIR : MICHAEL CARIDES	
1030-1050	Distal Radius Fractures – A Personal Journey	Alexander Shin
1050-1100	Discussion	
1100-1120	1-2 Year Results of Midcarpal Wrist Hemiarthroplasty	Scott Wolfe
1120-1130	Discussion	
1130-1230	AC BOONZAIER LECTURE: "SASSH - Why do We Belong?	Johan vd Westhuizen
1230-1330	LUNCH	
SESSION 8	CHAIR : ERICH MENNEN	
1330-1430	Ethics Lecture: "Ethics in the Emergency Setting"	Efraim Kramer
1430-1450	Ulna Sided Wrist Pain	Alexander Shin
1450-1500	Discussion	
1500-1520	Arthritis of the Wrist	Greg Bain
1520-1530	Discussion	
1530-1545	Current Concepts in the Treatment of Kienbock's Disease	Alexander Shin
1545-1555	Discussion ·	
1555	Announcement of the Stratmed Prize for Best Research and The Macromed Barry O'Kelly Memorial Prize	
1600	Closure of Congress	

**Erich Mennen** 



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### Abstracts

#### TITLE THUMB CARPOMETACARPAL ARTHRITIS TREATMENT BY TRAPEZIECTOMY AND HAEMATOMA DISTRACTION USING THE MINI TIGHTROPE (ARTHREX): 2 YEAR RESULTS

#### Author(s) Martin Wells, A Ikram, C Anley, S Pretorius Dr Martin Wells, PO Box 2704, Bellville, 7535

The carpometacarpal (CMC) joint of the thumb is the second most common site of osteoarthritis in the hand, leading to pain and instability of the thumb, which significantly influences activities of daily living. Initial treatment involves conservative measures. If these fail, surgery is considered. Multiple surgical options have been suggested, the most common procedure remains trapeziectomy with or without tendon suspension and interposition. Although it has been shown that the results of simple excision of the trapezium are similar to those produced by excision of the trapezium with ligament reconstruction and tendon interposition, a recent study concluded that many surgeons prefer ligament reconstruction and tendon interposition following trapeziectomy. Other surgical options include osteotomy, arthrodesis, hemiarthroplasty and total arthroplasty.

**Goal:** We investigated the use of a Mini TightRope(Arthrex) to suspend the thumb metacarpal, replacing the need for the tendon suspension and interposition. The goal of our study was to assess whether the use of a Mini TightRope(Arthrex) to suspend the thumb after a trapeziectomy is a viable option.

**Methods:** Patients with CMC arthritis requiring surgery were enrolled for this prospective study. The surgical technique included an open trapeziectomy and subsequent suspension of the thumb metacarpal from the second metacarpal via a Mini TightRope. Patients were immobilised for three weeks after which range of motion exercises were encouraged.

Patients were followed up at 3wks, 6wks, 3mnths, 6mnths and 2 yrs. At follow-up a visual analogue score (0-10) and a quickDASH score were obtained. Clinically the extension, first webspace angulation and opposition (1 - 10 via the Kapandji method5) and key pinch grip of the thumb were assessed. Subsidence was measured using the trapezial space ratio on radiographs. Any complications were documented.

**Results:** To date we have operated 85 thumbs. 22 patients (21F, 1M) have over 2 years follow-up, while the remaining patients have had 6mnths to 1 year follow-up. For the patients with a 2 year follow-up the average age is 60.5 yrs. The average visual analogue score and quickDASH scores improved from 8.7 and 51.8 to 1.2 and 14.6 respectively. The extension and first webspace angulation remained unchanged (38° pre-op vs 39° post-op) but the range of motion improved from an average of 7 to 9 according to the Kapandji score. The pinch grip was 90% of the contralateral side. The trapezial space ratio averaged 0.33.

One patient, who was also treated for Carpal tunnel syndrome and Dupuytrens, had persistent pain. No other complications were encountered in this study.

**Conclusion:** The use of the Mini TightRope (Arthrex) to suspend the thumb metacarpal following a trapeziectomy is a simple, safe and effective method that allows for early mobilisation of the thumb following surgery. In addition it provides significant improvement in both pain and function (according to the quickDASH and VAS scores), while improving range of motion and maintaining extension of the thumb and the first webspace.

#### TITLE TOTAL ELBOW ARTHROPLASTY: A COMPARISON OF CEMENTING TECHNIQUE AND POST-OPERATIVE RANGE OF MOTION BETWEEN TRICEPS DETACHING AND TRICEPS-SPARING APPROACHES

### Author(s) Dr Robert Dachs: Dr David Chivers: Dr Mark Fleming: Dr Basil Vrettos: Dr Stephen Roche

Dr Robert Dachs, Department of Orthopaedic Surgery, University of Cape Town

Aim: Comparing outcomes between triceps-detaching and triceps-sparing approaches in elbow arthroplasty, focusing on cementing technique and post-operative range of motion.

**Methods:** A retrospective review of 44 consecutively managed patients who underwent a primary total elbow arthroplasty. Data analysed included patient demographics, range of motion pre-operatively and at various stages post-operatively, approach utilized, operative time and complications. Cementing technique was graded as adequate, marginal or inadequate according to Morrey's criteria.

**Results:** 15 patients had a triceps-sparing approach, and 29 had a variation of a triceps-detaching approach. Follow-up averaged 56.1 months. Range of motion at final follow-up in the triceps-sparing group was  $10^{\circ}-140^{\circ}$  (±22.5°) compared to  $27^{\circ}-129^{\circ}$  (±35.0°) in the triceps-detaching group. Tourniquet time averaged 85.4 (±17.0) minutes for the triceps-sparing group and 96.1 (±22.6) minutes for the triceps-detaching group. The complication rate in the triceps-sparing group was 13.3%, and in the triceps-detaching group was 24.1%, including five triceps ruptures. Three patients who had repairs of the rupture developed deep infections requiring further surgeries. Cementing technique was adequate in 91.7% in the triceps-sparing group and in 70.6% in the triceps-detaching group.

**Conclusion:** A triceps-sparing approach results in a predictable improvement in range of motion with no compromise of the cement mantle.



#### TITLE USING SENSE SUBSTITUTION TO ENHANCE SENSORY RETRAINING AFTER A PERIPHERAL NERVE INJURY

#### Author(s) Evanthia Pavli & Corrianne van Veize

Evanthia Pavli, Private practice: Linksfield Medical Centre, Johannesburg & Groenkloof, Pretoria

**Aim:** To identify an effective low - tech method of using auditory stimuli to substitute for the sense of touch in the early phase of a sensory retraining programme

**Background:** Sense substitution has been identified and used as one of the treatment modalities in early sensory re-learning programmes. Apart from vision, hearing has been proven to be an excellent method of preserving the sensory hand map in the somatosensory cortex of the brain. The most well-known method of amplifying sounds produced when different textures are stroked, is the Sensor Glove developed by Birgitta Rosén. However, this glove is not commercially available. As a result, other methods of amplifying sound have been explored.

**Method:** 15 subjects with median and/or ulnar nerve injuries were recruited for the study. Two tests were carried out, one using textured dowel sticks (hearing alone) and the other using a stethoscope (to amplify the sound). In both tests, each subjects ability to identify 4 different fabrics, based solely on the sound created when touching the fabric, was evaluated.

**Results:** Results indicate that the use of a stethoscope to amplify sounds created when stroking different textures, may assist in the identification of the sound, though a significant difference between the two methods has not been established.

**Conclusion:** Using a stethoscope to amplify sound during the early sensory retraining period after a peripheral nerve injury may facilitate texture identification and discrimination. This is largely related to the increased degree of concentration required during this relearning period which is essential in facilitating patients' preservation of the sensory hand<sup>i</sup> map. As such a stethoscope is recommended for use in early sensory re-learning programmes.

#### TITLE THE "SOLOMONS" SIGN IN TB WRIST

#### Author(s) Michael Solomons

In patients presenting with a painful monoarthritis involving the wrist, the diagnosis might include Rheumatoid Arthritis, Gonococcal Arthritis, Gout, Acute bacterial septic arthritis, Haemophilia and Tuberculosis. The author has identified a clinical sign that is pathognomonic in tuberculosis. The sensitivity and specificity of this sign will be reported. A theoretical explanation as to its cause will be discussed.

#### TITLE ULTRASOUND DIAGNOSIS OF CARPAL TUNNEL SYNDROME

#### Author(s) Dr Erich Mennen

Postnet Suite 373 Private Bag X10 Elarduspark 0047

Aim: How useful is ultrasound in the diagnosis of carpal tunnel syndrome ?

**Method:** By measuring and comparing the surface area of the median nerve at different levels proximal to and in the carpal tunnel the diagnosis of this condition may be confirmed.

**Results:** Consecutive patients were evaluated for carpal tunnel syndrome based on the history, clinical examination and classical tests e.g. Phalen.

**Conclusion:** The correlation between these clinical findings and ultrasound examination was analysed. The various ultrasound techniques of measurement will be discussed. Our study concludes that ultrasound is a useful tool in the diagnosis of carpal tunnel syndrome.

#### TITLE A NOVEL TECHNIQUE FOR SCAPHOLUNATE LIGAMENT RECONSTRUCTION USING THE ARTHREX MINI TIGHTROPE

#### Author(s) Dr Steve Carter

3rd Floor, Orthopaedic Unit, Vincent Pallotti Hospital, Pinelands

Aim: All patients who presented over a period of 3yrs with symptomatic Scapholunate instability and MRI confirmation of 100% ligament disruption were included.



**Background:** All were isolated Scapholunate ligament disruptions with no other ligament injuries, fractures, or evidence of Arthrosis.

**Method:** Surgical reconstruction was performed using the Arthrex mini tightrope.

**Results:** We reviewed the results of 6 patients, 2 females and 4 males, average age 26, over the 3 year period. Results showed improvement in instability in all patients, improved grip strength, return to sport and x-ray documentation of normalization of Scapholunate angles.

**Conclusion:** We conclude that this previously undescribed technique offers a valuable alternative to conventional techniques in order to achieve stability in symptomatic Scapholunate ligament disruption.

#### TITLE A RANDOMIZED TRIAL COMPARING LOCKED INTRAMEDULLARY FIXATION WITH ANATOMICALLY CONTOURED LOCKED PLATING OF CLAVICLE SHAFT FRACTURES

#### Author(s) Dr Reggie King, 76 Charles Hoffe str, Melkbosstrand

Dr Ajmal Ikram, Department of Orthopaedics, Tygerberg Academic Hospital

**Aim:** Clavicle shaft fractures can be treated operatively by anatomically contoured locked plating or locked intramedullary fixation. The aim of this study is to compare the effectiveness of these treatment options for displaced clavicle shaft fractures.

**Method:** Forty patients with acute displaced and shortened clavicle shaft fractures were randomly treated with anatomically contoured locked plating or a novel locked intramedullary device, conducted al! by the same surgeon. Operative time and scar size were captured directly after the intervention, while union rate, DASH scores and Constant Shoulder scores were determined 6 months post-operatively. **Results:** No differences between the two groups were found for age, gender, fracture comminution and displacement. Mean operating time was shorter in the nailing (44±7.03 min) than he plating (59±18.83 min) group (p=0.0009). Nailing was associated with significantly smaller scar sizes (39mm +/-8.77 vs. 117 +/- 18.36mm (p<0.0001), respectively). Six months post-operatively, similar DASH and Constant Shoulder scores between the two groups were shown with a 100% union rate in both groups.

**Conclusion:** Both anatomically contoured locked plating and locked intramedullary fixation resulted in successful treatment of displaced and shortened clavicle shaft fractures. However both operative time and scar size were significantly shorter and smaller in the nailing group. Based on these finding and the absence of prominent subcutaneous hardware necessitating removal of the nail, the novel locked intramedullary device is a good alternative to treat displaced clavicle shaft fractures.

#### TITLE RECONSTRUCTION OF THE "UNRECONSTRUCTABLE" MEDIAN NERVE DEFECT

#### Author(s) Michael Solomons Michelle Maree

In certain scenarios the median nerve defect reconstruction can be seriously challenging. This can be due to large length deficits or very

poor soft tissue environment. Two different reconstruction options will be discussed and reported. In two patients we have performed a vascularised ulnar nerve graft when there was a major injury to both nerves. In three patients we have performed a radial sensory to median nerve transfer. The results will be presented.

#### TITLE RESTORING ELBOW EXTENSION IN TETRAPLEGIC UPPER LIMB RECONSTRUCTION

Author(s) Dr. F de. V Theron, Prof Hans Myburgh, Dr. Erich Mennen, Mrs. Melanie Skeen, Miss. Magriet Winterbach, Miss Wendy Mann.

Aim: To evaluate different surgical methods to re-establish elbow extension in tetraplegic patient.

Method: Retrospective chart review of surgery in the last 5 years.

**Results:** Over the last couple of years several different methods of re-establishing elbow extension, as the first part of reconstruction of the tetraplegic upper limb, has been employed in the SUMMIT upper limb unit. These can be broadly grouped into two groups, namely: interposition grafts using the posterior deltoid as motor and direct transfer of the biceps to the triceps tendons. The different methods have been employed and will be reviewed.

**Conclusion:** Simple methods yield reliable results but the importance of post-op rehabilitation needs to be emphasized.



### TITLE COMPLICATIONS OF LOCKED VOLAR PLATING FOR DISTAL RADIUS FRACTURES IN AN ACADEMIC INSTITUTION

Author(s) **Dr. JP Watt**, Orthopaedic Registrar, Tygerberg Academic Hospital **Dr Ajmal Ikram**, Specialist Hand Surgeon, Tygerberg Academic Hospital

**Abstract:** Distal radius fractures are among the most common fractures of the upper extremity. Roughly 40% of distal radius fractures are treated with open reduction and internal fixation. Currently the mainstay of surgical treatment is volar locked plating. However, recent advances in surgical fixation with fragment specific fixation and low profile dorsal plating has put complications of volar locked plating back in the limelight. A recent publication by Becker et al reported a very high complication rate of 28% in a study of 153 subjects who had volar plating for distal radius fractures. The most common complications seen were attributed to sensory nerve disturbances, hardware associated problems and tendon irritation and injury. Conversely, Nydick et al found tendon complications in only 8 per 1000 patients. When compared with previous reports on traditional methods of dorsal plating, volar plates appear to have a higher incidence of fracture collapse but a lower rate of hardware-related complications. In a study published in 2011 by Yu et al, fewer neuropathic complications were encountered with low profile dorsal plating than with volar plates.

We report on a retrospective audit of early and late complications in 100 patients who had volar locked plating done for extra-articular distal radius fractures, from 2010 - 2011. The surgeons performing the surgeries ranged from most junior registrar to the senior investigator himself. All patients were treated for distal radius fractures at Tygerberg Academic Hospital and were reviewed clinically and radiographically, utilising the most current clinical scoring systems

#### TITLE ANATOMY OF THE BABOON HAND

#### Author(s) Dr Erich Mennen

Postnet Suite 373 Private Bag X10 Elarduspark 0047

Aim: The aim of this study is to compare the anatomy of the baboon hand with other primates and the human hand.

Method: Fresh frozen baboon hands were dissected.

**Results:** Anatomical characteristics e.g. the forearm muscle groups are described.

**Conclusion:** Findings are correlated with the numerous studies available in the literature on primate upper limb anatomy.

#### TITLE TRAUMATIC FINGER AMPUTATIONS: EXPERIENCE AT THE CHRIS HANI BARAGWANATH ACADEMIC HOSPITAL

#### Author(s) G O Oduah, G Biddulph, M T Ramokgopa

Dr George Oduah, Registrar, Orthopaedic Surgery, University of the Witwatersrand, Chris Hani Baragwanath Academic Hospital, Johannesburg

Aim: To determine the clinical presentation and management of patients with traumatic finger amputations.

**Method:** Patients who presented with traumatic finger amputation to the emergency unit of the Chris Hani Baragwanath Academic Hospital were reviewed prospectively. Data collection form indicating the mechanism of injury and the treatment given was completed for each patient. Parametric, continuous variables were described using means and standard deviations. Medians and interquartile ranges were used for non-parametric data. Categorical variables were described using frequencies and percentages

**Results:** A total of 123 patients were reviewed. The majority of the patients were males (82%). Ninety-one per cent of the patients presented to the nearest healthcare facility within six hours of the injury. Traumatic finger amputations occurred in the dominant hand in 76% of the patients. Industrial accidents and social violence were the predominant cause of finger amputations. A majority of the multidigit amputations resulted from industrial accidents. Majority of the patients (90%) underwent single stage reconstructive procedure. The average period of time off work was 17.2 days.

**Conclusion:** Single stage reconstructive procedures and prompt hand therapy in patients with traumatic finger amputations expedite rehabilitation and early return to work.



#### TITLE FRAGMENT SPECIFIC FIXATION: WHICH FRACTURES IS IT INDICATED FOR?

#### Author(s) Dr M Thiart; Dr A Ikram

Dr Mari Thiart, 36 Robins Road, Observatory

Aim: To assess which distal radius fractures can be fixed with fragment specific fixation.

**Method:** Patients with distal radius fractures that we thought would need fragment specific fixation were included in this study. We did pre-operative CT scans to visualize the fracture adequately. Pre-operatively, the approach and number of fixation devices was planned. 62 patients also received an intra-operative arthroscopy to confirm reduction. This did not change the management of the fracture. Our patients were followed up for complications; fracture healing; ROM and DASH scores.

**Results:** In order to improve the statistical power of this study, data collection is still ongoing. Early results show that this method of fixation has different surgical approaches and different indications than the standard volar plate. We would like to present these in detail and provide early ROM and DASH scores.

**Conclusion:** Fragment specific fixation is a good method to reduce and maintain the reduction of intra-articular distal radius fractures as well as very distal extra-articular fractures.

#### TITLE A PROSPECTIVE, RANDOMIZED CONTROLLED STUDY TO DETERMINE THE RADIOLOGICAL AND FUNCTIONAL OUTCOMES OF "IMN" FIXATION OF DISTAL RADIUS FRACTURES USING A NOVEL DEVICE THE SONOMA WRX DISTAL RADIUS NAIL COMPARED TO VOLAR LOCKING PLATE

#### Author(s) M van der Kaag, A Ikram

Dr M van der Kaag, 96 11th Ave, Boston Bellville

Aim: Assess and compare the functional, radiological and cosmetic results as well as patient satisfaction in patients treated with the IMN Device Vs Volar Locking Plate

**Method:** All patients who presented to our institution with extra articular distal radius fractures and met the inclusion criteria were invited to take part in the study. The patients were randomly allocated to two groups, those who underwent intramecullary distal radius fixation using the Sanoma Wrx Distal radius nail and those who underwent fixation using a volar locking plate. The patients were then followed up at 2 weeks, 6 weeks, 3 months, 6 months and 1 year. The radiological parameters, ie radial height, inclination and tilt were compared as well as the functional outcomes by means of DASH score. The range of motion of the wrist was compared as well as the scar size. Complications were reviewed.

**Results:** We present our early results. Currently we have included 9 patients in the IMN group and 7 patients in the volar plate group with follow-ups longer than 3 months. Current results show smaller scars (2.5 vs 6.7cm), comparable flexion and extension (40 vs 40 and 45 vs 40), slight improvements in pronation and supination (80 vs 75 and 85 vs 80). Radial and ulnar deviation is comparable. The radiological parameters showed improvements in the radial height (2.5 vs 2.2 mm), inclination (3.6 vs 3.2 degrees) and tilt 13,7 vs 12 degrees). Dash scores will be compared at 6 months.

**Conclusion:** Intra medullary nailing of the distal radius seems to compare to volar plating in terms of radiological parameters and rotational stability but has the added benefit of early range of motion, minimal invasive technique, less post op pain and less complications such as tendon irritation.

#### TITLE AN ATYPICAL PRESENTATION OF GLOMUS TUMOUR MIMICKING MEDIAL EPICONDYLITIS

#### Author(s) Michael Solomons

A 65 year old male presented with medial elbow pain. Two years previously he had consulted an elbow surgeon and a diagnosis of Golfers Elbow was made.

The clinical presentation, radiological assessment and surgical management will be discussed as well as a brief overview of Glomus Tumours arising in sites other than the finger tips.



#### TITLE A RETROSPECTIVE STUDY TO EVALUATE THE EFFICACY OF TREATING NON-UNIONS, UNNAILABLE AND UN-PLATEABLE FRACTURES OF THE HUMERUS, WITH A TAYLOR-SPATIAL FRAME

#### Author(s) Karl Strauss, Sean Pretorius

Karl Strauss, Tygerberg orthopaedic department (Registrar), 2 Sinnya crescent, Avalon Estate Durbanville

**Aim:** This paper presents the outcomes of 12 cases treated with a taylor-spatial frame of the humerus, as a salvage procedure. The purpose of the study is to show that a ring-fixator can be used effectively with predictable and reproducible results, in cases of salvage surgery of the humerus, when all other conventional modalities have failed. Literature review on this topic yields sparse results, with no studies conducted of this kind.

**Method:** The cases are interviewed, clinically examined, DASH scores are recorded and radiological parameters are evaluated. A Retrospective review of the notes is conducted.

**Results:** Results are excellent in 7, good in 2, fair in 1 and in 2 cases the frames were removed due to patient factors. Union is achieved in all but 2 cases, with a mean time to union of 218 days, or 7,2 months. DASH scores range from 8 to 55. Overall patient satisfaction is excellent.

**Conclusion:** Whilst salvage surgery of the humerus remains a difficult challenge, we have found that the use of a ring fixator for this purpose is both effective and acceptable, yielding excellent results in cases of un-nailable, un-plateable fractures and non-unions of the humerus. However, proper patient selection remains paramount.

#### TITLE THE TETRAPLEGIC THUMB

#### Author(s) Dr F de V Theron: Prof Hans Myburgh; Dr Erich Mennen; Mrs. Melanie Skeen; Miss Magriet Winterbach; Miss Wendy Mann

The evaluation, surgical treatment and rehabilitation of the tetraplegic thumb is discussed.

Ouadriplegic patients are seen for tetrahand reconstruction at Summit Rehab in Pretoria.

Pinch grip, the first web space, tendon transfer to Flexor Pollices Longus, the split FPL procedure, first Carpometacarpal Arthrodesis and Opponensplasty are among the key points that will be addressed.

#### TITLE FACTORS INFLUENCING THE COMPLIANCE OF POST-OPERATIVE REHABILITATION OF FLEXOR TENDON INJURY

#### Author(s) GOOduah, T Spark, G Biddulph, M T Ramokgopa

Dr George Oduah, Registrar, Orthopaedic Surgery, University of the Witwatersrand, Chris Hani Baragwanath Academic Hospital, Johannesburg

**Aim:** To determine the patients' socio-demographic and pre-surgery related factors that might influence the compliance of post-operative rehabilitation of flexor tendon injury.

**Method:** A prospective study of 62 patients who underwent primary repair of acute flexor tendon injury was done. Questionnaires containing patients' socio-demographic details were completed. All the patients were followed up for eight weeks postoperatively. The attendance rate for hand therapy sessions and adherence to rehabilitation protocol were docurrented. The relationship between patients' demographic factors and the various measures of compliance was assessed.

**Results:** Patients who had a job at the time of injury had a better compliance than those who were unemployed. Patients with good family support had better compliance than those without family support.

**Conclusion:** Patients with acute flexor tendon injuries who are not gainfully employed and have no family support may comply poorly with post-operative rehabilitation and may benefit from pre-operative counselling and modification of post-operative flexor tendon rehabilitation protocol.



#### TITLE GRIP STRENGTH AFTER ARTHRODESIS OF THE WRIST AND FOUR CORNER FUSION: A RETROSPECTIVE STUDY

#### Author(s) M Swart: O Koch; TLB Le Roux

**Background:** A stable painless wrist joint is essential for normal function of the hand (1). Arthrodesis and four corner fusion of the wrist are commonly performed procedures for traumatic and non-traumatic disorders of the wrist(1,3,5). Loss of grip strength is a consequence of arthrodesis. This may be due to relative lengthening of the musculotendinous units because of bone removal and loss of movement in the radio-carpal and the inter-carpal joints, allowing for optimal positioning of the wrist(19) Reliable evaluation of grip strength is important to evaluate the effectiveness of the different surgical options in management (10). Previously there has been great variance in the literature with regards to loss of grip strength after wrist fusion. Previous authors have found loss of grip strength to range from 57% to 78% (2,4,6,7,11,13,15,16,17,18). Some authors have reported an improvement in grip strength (14). We aim to show that loss of grip strength is less than has previously been reported.

**Materials and Methods:** We have retrospectively looked at 32 healthy patients undergoing wrist fusion or four corner fusion between the periods of 2008 to 2013 at our institution. A Jamar dynamometer was used to measure the grip strength for all the participants (12). All measurements were taken in standardized position with the participant sitting with their arm held in zero abduction and the elbow in 90° flexion with the forearm in the neutral position (7,8,9). The Jamar was set on the second handle position for all subjects. The average of three trails was used. Results have been standardized to allow for differences in age and gender (10).

Post -operative follow up ranged from a mean of 6-48 months. Exclusion criteria were that of systemic disease such as rheumatoid arthritis and pathology of the contralateral wrist. The results were compared to the normative data for adults as published by Mathiowetz et al (10).

Population	Wrist arthrodesis 21 (14 M; 7 F)
	Four Corner Fusion 11 (10 M; 1 F)
Comparison	Grip strength compared to 1)unaffected side and to the 2)normative values according to age
Outcome	Wrist arthrodesis 1) 68% 2) 60%
,	Four Corner Fusion 1) 72% 2) 64%
Method	Retrospective

:

**Conclusions:** The final data of the subjects are not finalised but provisional results show 68% grip strength according to Mathiowetz's tables for total wrist fusion and 72% for the four corner fusion group. A large majority of the subjects, however, still need to be tested

#### TITLE AN OVERVIEW OF THE OUTCOMES FOLLOWING THE USE OF A PASSIVE MOTION PROTOCOL IN FLEXOR TENDON REHABILITATION AT CHRIS HANI BARAGWANATH ACADEMIC HOSPITAL – AN IMPETUS FOR CHANGE?

#### Author(s) Roxanne Wentzel, Evanthia Pavli, Corrianne van Velze

Roxanne Wentzel, Chris Hani Baragwanath Academic Hospital, Old Potchefstroom Road, Johannesburg

**Aim:** To evaluate the effect of the current passive motion protocol in the post-operative treatment of patients with zone II-V flexor tendon injuries at CHBAH.

**Method:** Patients with zone II-V flexor tendon injuries were recruited for the trial. Post operatively patients were fitted with dynamic splints - following a protocol of passive flexion and active extension. Between 4 - 12 weeks a programme of active flexion and graded strengthening was implemented. The outcomes of rehabilitation were measured, recorded and classified at 4, 6, 8 and 12 weeks, according to established criteria.

**Results:** Results indicated that the majority of patients treated with dynamic splinting achieved poor – fair results (according to established criteria for flexor tendon rehabilitation).

**Conclusion:** The trial indicates that outcomes following the use of the current passive motion protocol are not optimal. Factors influencing outcomes vary and need to be identified and addressed. Current trends in flexor tendon rehabilitation have moved toward the use of controlled active movement. The researchers propose the implementation of a prospective randomised control trial to compare outcomes of controlled passive motion with controlled active motion within the South African context. Such a trial will provide the hand therapy/ surgery world with relevant data regarding the necessity for and the implications of such a change.



#### TITLE EVALUATION OF AN EVIDENCE-BASED PATIENT PATHWAY FOR NON-SURGICAL & SURGICALLY MANAGED METACARPAL FRACTURES

#### Author(s) Robyn Midgley: Angela Toemen

Robyn Midgley, Medical Suite B7A, Hobart Grove, Bryanston, Johannesburg

**Aim:** Surgical and non-surgical metacarpal fractures are managed according to their anatomical location and fracture stability using an evidence-based pathway. The aim of this paper is to evaluate functional outcome, splint compliance, range of motion (ROM), residual pain, return to work and patient satisfaction following treatment based on the pathway.

**Method:** Fifty patients referred for surgical or non-surgical management of metacarpal fracture(s) were selected to participate in the clinical evaluation. Patient demographics, fracture site, management approach, type of splint, number of appointments attended and complications were recorded. A telephone questionnaire was used to evaluate patient satisfaction, compliance with splinting, ROM, pain, return to work and functional outcome. Recorded complications included infection, malunion, nonunion, rotational deformity and angulation deformity.

**Results:** Thirty-six patients were contactable 10–24 weeks post-injury. A total of 23 metacarpal neck/head, eight shaft and four base fractures were included. Ninety-four percent (34/36) of fractures were treated non-operatively. Patients were compliant with splinting in 17/36 (47%) cases. There were no reported complications. Seventy-two percent reported no pain at follow-up. All employed patients returned to work. Full ROM was reported in all cases. Full functional use of the hand was present in 92% of cases. Patients reported high satisfaction with the service (8/10) and required an average of three therapy appointments.

**Conclusion:** The metacarpal fracture evidence-based pathway was successful with 92% of patients returning to full function. The absence of complications emphasizes hand therapy's ability to efficiently and cost effectively manage these fractures following referral. The pathway has been further refined as a result of the clinical evaluation, with alteration of the metacarpal shaft fracture splint, removal of repeat X-rays.

#### TITLE ANTERIOR NEEDLE SCOPE RELEASE FOR INTERNAL ROTATION CONTRACTURE OF THE SHOULDER IN OBSTETRIC BRACHIAL PLEXUS INJURY: A NEW SURGICAL TECHNIQUE

#### Author(s) A Horn, S Roche, M Maree, M Solomons

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A Horn, Department of Orthopaedics, Groote Schuur Hospital, University of Cape Town

**Aim:** Arthroscopic release of the shoulder for secondary internal rotation contracture in obstetric brachial plexus injury can be challenging due to the small size of the shoulder and the contracted nature of the joint. Due to this, release is usually postponed to the age of 2 years or older. We present a series of three patients in whom we performed this release at the age of 14 months or younger, using a needle arthroscope with a hypodermic needle to release the contracture instead of conventional instruments.

**Method:** The patients in our series had internal rotation contractures of their shoulders despite passive stretching programmes, and were less than 18 months of age. Patients were positioned in the lateral decubitus position and a 1.0mm arthroscope was inserted using the posterior portal. The inferior and middle glenohumeral ligaments were identified as well as the subscapularis tendon. A 14-gauge needle was inserted through the rotator interval. The subscapularis tendon and anterior capsule were released using the cutting edge of the needle until adequate passive external rotation was achieved. Post-operatively the limb was left free and physiotherapy was initiated.

**Results:** The average intra-operative improvement of external rotation was 40° and 45° in adduction and abduction respectively. At 6 months post-operatively, passive range of external rotation had deteriorated slightly, but remained better than pre-operative range. Active external rotation remained limited due to persistent weakness of infraspinatus. The patients did not exhibit an external rotation contracture.

**Conclusion:** Our method of using a needle scope and needle facilitates early arthroscopic release for internal rotation contracture and may potentially decrease the secondary changes associated with a longstanding internal rotation contracture such as glenoid dysplasia. At 6 month follow up, an acceptable passive range of external rotation was maintained despite weakness of active external rotation.

#### TITLE LUNOTRIQUETRAL LIGAMENT INJURIES

#### Author(s) Alexander Shin

Injuries of the lunotriquetral interosseous ligament complex and associated structures are less common and are poorly understood compared with the other proximal-row ligament injury, scapholunate dissociation. The spectrum of injuries ranges from isolated partial tears to frank dislocation, and from dynamic to static carpal instability. The diagnosis may be difficult to establish because of the many



possible causes of ulnar-sided wrist pain and the often normal radiographic appearance. The mechanism of injury is variable and includes attrition by age, positive ulnar variance, and perilunate or reverse perilunate injury. Appropriate treatment requires assessment of the degree of instability and the chronicity of the injury. Options include corticosteroid injection, immobilization, ligament repair, ligament reconstruction with tendon grafts, limited intercarpal arthrodesis, and ulnar shortening.

#### TITLE SCAPHOLUNATE INSTABILITY

Author(s) Greg Bain

#### TITLE CURRENT CONCEPTS OF SCAPHOID NONUNIONS

#### Author(s) Alexander Shin

The treatment of scaphoid nonunions can be challenging in the face of avascular necrosis and carpal collapse. The historical perspectives, treatment options and outcomes will be discussed. The role of more complex microsurgical procedures and their outcomes will also be discussed.

#### TITLE SLAC WRIST: NEW DIRECTIONS FOR AN OLD PROBLEM

#### Author(s) Scott Wolfe

New algorithms for wrist MRI enable high resolution cartilage-sensitive sequencing; calling into question the traditional 3-stage SLAC arthritis grading system. Concurrently, better understanding of wrist kinematics and coupled wrist motion have ushered in new treatment possibilities for SLAC and SNAC arthritis. It is proposed that cartilage-sensitive MR sequencing can lead to customized treatment recommendations for post-traumatic and osteoarthritis of the wrist, with improved patient outcomes.

#### TITLE BRACHIAL PLEXUS SYMPOSIUM

#### Author(s) Alexander Shin & Scott Wolfe

The loss of upper extremity function following a traumatic brachial plexus injury causes devastating functional deficits that require complex surgical reconstruction. Because of advances and innovations in surgical techniques, it is now

possible to reliably restore elbow flexion and shoulder stability, provided intervention is prompt. Recently, innovations have provided additional surgical reconstructive options that can be expected to improve functional outcomes.

For example, methods are available that may, at times, restore basic grasp function in patients with lower plexus rupture or avulsion. Surgeons from all disciplines must be cognizant of these new possibilities and seek out additional training or

partnerships across specialty boundaries to provide the best possible care in these devastating injuries. In many such reconstructive schemes, nerve transfer from multiple intra- and extraplexal donor nerves and microvascular transfer of functioning free muscles to the paralyzed limb are integral parts of the total reconstructive plan. Successful outcomes require not only consideration of the nature of the plexus injury (including location, mechanism, and elapsed time from injury) and presence of associated injuries but also surgical expertise, practical operative time constraints, and ability to provide and attend prolonged postoperative rehabilitation.

#### TITLE BRACHIAL PLEXUS SYMPOSIUM

#### Author(s) Scott Wolfe & Alexander Shin

**Nerve Transfers:** Nerve transfers are key components of the surgeon's armamentarium in brachial plexus and complex nerve reconstruction. Advantages of nerve transfers are that nerve regeneration distances are shortened, pure motor or sensory nerve fascicles can be selected as the donor, and nerve grafts are generally not required. The overall theme of nerve transfers is similar to tendon transfers; expendable donor nerves are transferred to denervated nerves with the goal of functional recovery. Transfers may be subdivided into intra plexal, extra plexal, and distal types; they all have their unique roles in the reconstructive process. A thorough diagnostic workup and intra operative decision-making help guide the surgeon in reaching the most predictable and efficient solutions. Nerve transfers have made a positive impact on the outcomes of nerve surgery and are essential tools in complex nerve reconstruction.

**Nerve Grafts:** While previous research suggests that long nerve grafts lead to modest outcomes in brachial plexus reconstruction, we demonstrated excellent and comparable results in a comparison of long nerve grafts to nerve transfers in treating axillary nerve palsy. When healthy donor roots or trunks are available and the time from injury is less than six months, long nerve grafts should not be overlooked as an effective intervention for the treatment of axillary nerve palsy in adult brachial plexus injuries.



#### TITLE DISTAL RADIUS FRACTURES: A PERSONAL JOURNEY

#### Author(s) Alexander Shin

Distal radius fractures are treated by nearly every hand surgeon. There are so many different treatment options available and each surgeon believes that their method of treatment is the best. The various methods of treatment, outcomes, and current concepts for treatment complex intraarticular fractures will be discussed. A personal perspective of a hand surgeon who sustained an intra-articular distal radius fracture will be discussed.

#### TITLE 1-2 YEAR RESULTS OF A NOVEL MIDCARPAL HEMIARTHROPLASTY

#### Author(s) Scott Wolfe

Wrist hemiarthroplasty is a novel technique that is still in its infancy, but early outcomes are encouraging. A novel prosthetic design, incorporating design considerations specific to emulation of the midcarpal joint, demonstrates statistically improved range of motion, DASH and MAYO scores in 17 patients with a low complication rate. While no definitive conclusions can be reached about the utility of such implants as of yet, from a theoretical standpoint, the restoration of physiological kinematics offered by proximal row implants are consistent with the improved early outcomes demonstrated. The elimination of the distal component, whenever possible, should also reduce component-related loosening, fracture, and cut-out. However, the concerns about the use of prostheses in cases of inflammatory arthritis have not yet been fully resolved, and the indications and contraindications for the use of hemiarthroplasty continue to evolve with more collective experience with the procedure.

#### TITLE ULNAR SIDED WRIST PAIN – IS IT THAT HARD?

#### Author(s) Alexander Shin

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Ulnar-sided wrist pain has often been equated with low back pain because of its insidious onset, vague and chronic nature, intermittent symptoms, and frustration that it induces in patients. Chronic ulnar-sided wrist pain may be accompanied by a history of workers' compensation claims and unrelenting and irresolvable pain, and it may occur in patients with difficult personalities. Despite these issues, many patients with ulnar-sided wrist pain have pathologic lesions that may be amenable to surgical treatment.

#### TITLE ARTHRITIS OF THE WRIST

**Greg Bain** 

Author(s)

#### TITLE CURRENT CONCEPTS IN KIENBOCK'S DISEASE

#### Author(s) Alexander Shin

Treatment of Kienböck's disease has historically been determined by staging, ulnar variance, and presence or absence of arthritic changes. With the advent of newer techniques of vascularized bone grafting, the status of the cartilage shell of the lunate has become another factor that can influence the procedure performed. Current concepts, outcomes and the role of vascularized bone grafts will be discussed.



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### Notes



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Friday	30 August 2013	0910-0915	Discussion	1155-1200	Discussion
Thaday	JO August 2012	0915-0925	A Novel Technique for Scapholunate Steve Carter	1200-1210	An Atypical Presentation of Giornus Turnour mimicking Medial
1000-1600	Trade Exhibitor Set-up in Exhibiting Area		Ligament Reconstruction using the Arthrex Mini Tightrope		Epicondylitis Michael Solomons
1330-1400	Delegate Registration	0925-0930	Discussion	1210-1215	Discussion
SESSION 1	NACROMED WORKSHOP "New Horizons in Locking Technology" Scott Wolfe	0930-0940	A Randomised Trial Comparing Locked Intramedullary Fixation with Anatomically Contoured Locked Plating of Clavicle Shaft Fractures Reogie Kino, A Ikram	!' 1215-1225 	A Retrospective Study to Evaluate the Efficacy of Treating Non- unions, Un-nailable and Un-plateable Fractures of the Humerus with a Tavior-spatial Frame Karl Strauss. S Pretorius
1400-1600	KinematX Wrist Hemiarthroplasty	0940-0945		1776 1 770	Discussion
	CarpaiFix for PIP Joint Fusions	0945-0955	Reconstruction of the 'Unreconstructable' Median Nerve Defect	1223-1230	
1630-1930	Evening Game Drive (ontional)	0955-1000		1230-1330	
Evening	Borna Braai			SESSION 4	CHAIR : ROGER NICHOLSON
		1000-1030	TEA	1220 1240	The Tetraphonic Thumb Economic dol/ Thereas 41 Mb thurses
Saturd	au 31 August 2013	SECTION 3		10001040	E Mennen, M Skeen, W Mann, M Winterbach
	0	36331011 3	CITAIR : MARTIN WELLS	1340-1345	Discussion
0730-0750	Delegate Registration	1050-1040	Francois deV Theron, H Myburgh, E Mennen, M Skeen,	1345-1355	Factors influencing the Compliance of Post-operative Rehabilitation
0750-0800	Welcome and Announcements Michael Carides		W Mann, M Winterbach		of Flexor Tendon Injury
SESSION 2	CHAIR :: JOHAN VAN DER WESTHUIZEN	1040-1045	Discussion		George Oduah, R Wentzel, T Spark, G Biddulph, MT Ramokgopa,
0800-0810	Thumb CMC Arthritis Treatment by Trapeziectomy and	1045-1055	Complications of Locked Volar Plating for Distal Radius Fractures in	1355-1400	
Stra	Haemajoma Distraction using the Mini lightrope: 2 year Results Martin Wells, A Ikram, C Anley, S Pretorius	1 1055-1100	an Academic Institution James Watt, A Ikram Discussion	1400-1410	Grip Strength alter Arthrodesis of the Wrist and Four Corner – Fusion: A Retrospective Study <u>M Swart</u> , O Koch, TLB le Roux
0810-0815	Discussion	1 1 100-1110	Anatomy of the Baboon Hand Erich Mennen	1410-1415	Discussion
0815-0825	Total Elbow Arthroplasty: A Comparison of Cementing	1110-1115	Discussion	1415-1425	An Overview of the Outcomes following the Use of a Passive
<i>T</i> .	Triceps-detaching and Triceps-sparing Approaches Rob Dactos, D Chivers, M Fleming, D Vrettos, S Roche	1115-1125	Traumatic Finger Amputations: Experience at the CH Baragwanath Academic Hospital <u>George Oduah</u> , G Biddulph, MT Ramokgopa	Thomas	Motion Protocol in Flexor lendon Rehabilitation at CH Baragwanath Academic Hospital – An Impetus for Change? An Angel Roxanne Wentzel E Pavli C van Velze:
0825-0830	Discussion	1125-1130	Discussion	1425-1430	Discussion
0830-0840	Using Sense Substitution to Enhance Sensory Retraining after a	1130-1140	Fragment Specific Fixation: Which Fractures is it indicated for?	1430-1440	Evaluation of an Evidence-based Patient Pathway for Non-surgical
	Peripheral Nerve Injury Evanthia Pavli, C van Velze		<u>Mari Thiart</u> , A Ikram		and Surgically managed Metacarpal Fractures
0840-0845	Discussion	1140-1145	Discussion		<u>Robyn Midgley</u> , A Toemen
0845-0855	The "Solomons" Sign in TB Wrist O Michael Solomons	1145-1155	A Prospective Randomised Controlled Study to Determine the Radiological and Europianal Outcomes of "IMN" Eivation of Distal	1 1440-1445	Discussion
0855-0900	Discussion Macraned Irge		Radius Fractures using a Novel Device, the Sonoma Wix Distai	1445-1455	Anterior Needle Scope Release for Internal Rotation Contracture
0900-0910	Ultrasound Diagnosis of Carpal Erich Mennen Tunnei Syndrome	Regis	Radius Nai nompared to Volar Locking Plate NGI NGE <u>Mark van der Kaag</u> , A Ikram	1	Technique <u>M Maree</u> , A Horn, S Roche, M Solomons
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1455-1500 Discussion

#### 1500-1530 TEA

SESSION 5	CHAIR : ANDREW BARROW	
1530-1550	Lunotriquetral Ligament Injuries	Alexander Shin
1550-1600	Discussion	
1600-1620	Scapholunate Instability	Greg Bain
1620-1630	Discussion	
1630-1700	Annual General Meeting (members only)	
1930 for 2000	Congress Dinner	

Sunday	1 September 2013
0720 0750	Delogate Registration

	Delegate Registration
SESSION 6	CHAIR : MICHAEL SOLOMONS
0800-0820	Current Concepts in the Treatment of Scaphoid Non-unions
	Alexand
0820-0830	Discussion

0830-0850 SLAC Wrist: New Directions for an Old Problem

0850-0900 Discussion

SYMPOSIUM: Brachial Plexus Injuries 0900-0950

0950-1000 Discussion

1000-1030 TEA

#### SESSION 7 CHAIR : MICHAEL CARIDES

- 1030-1050 Distal Radius Fractures - A Personal Journey Alexander Shin
- 1050-1100 Discussion
- 1100-1120 1-2 Year Results of Midcarpal Wrist Hemiarthroplasty Scott Wolfe

1120-1130 Discussion

Alexander Shin

Scott Wolfe

Alexander Shin

Scott Wolfe

1130-1230 AC BOONZAIER LECTURE: "SASSH - Why do We Belong?

Johan vd Westhuizen

#### 1230-1330 LUNCH SESSION 8 CHAIR : ERICH MENNEN 1330-1430 Ethics Lecture: "Ethics in the Emergency Setting" Efraim Kramer 1430-1450 Ulna Sided Wrist Pain Alexander Shin 1450-1500 Discussion 1500-1520 Artinritis of the Wrist Greg Bain 1520-1530 Discussion 1530-1545 Current Concepts in the Treatment of Kienbock's Disease Alexander Shin 1545-1555 Discussion 1555 Appouncement of the Stratmed Prize for Best Research and The Macromed Barry O'Kelly Memorial Prize Closure of Congress 1600 Erich Mennen





Scientific Program

30 AUGUST - 1 SEPTEMBER 2013

### 2.4mm Variable Angle LCP Volar Rim Distal Radius Plate.

O O

For the fixation of complex intra- and extra- articular fractures of the distal radius.

#### 24-HOUR EMERGENCY NUMBERS

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