

**Advances in Brachial Plexus Reconstruction: A Surgical Skills Course**  
**American Society for Surgery of the Hand**  
**April 13-15, 2017**  
**Program Schedule**

<b>Thursday, April 13, 2017</b>	
7:00 a.m.	Registration Marriott Ballroom
<b>Brachial Plexus: The Basics</b>	
8:00 a.m.	Brachial Plexus and Spinal Nerve Anatomy Milan V. Stevanovic, M.D.
8:15 a.m.	Injury: Mechanisms and Pathoanatomy: Common Patterns of Injury Amy M. Moore, M.D.
8:30 a.m.	Birth-Related Plexus Injury: Demographics, Risk Factors, Incidence Robert J. Spinner, M.D.
8:40 a.m.	Physiology of Lower Motor Neuron Injury: Nerve and Muscle Changes Brian Crum, M.D.
<b>Adult Brachial Plexus Injury</b>	
8:50 a.m.	Functional Anatomy of Brachial Plexus: Common Patterns of Adult Injury: Motor and Sensory Loss: Global, Upper, Terminal Branches Scott Wolfe, M.D.
9:05 a.m.	Case Examples: Video Recordings of Upper Trunk, Global Injury Exam Alexander Y. Shin, M.D.
9:10 a.m.	Patterns of Injury in OBBP: Frequency, Factors Affecting Outcome Scott H. Kozin, M.D.
9:15 a.m.	OBBP Case Examples Scott H. Kozin, M.D.
9:20 a.m.	Associated Injuries in Traumatic Plexus (Polytrauma): Chest Wall/Pneumo; Vascular; Cervical FX; UE and LE fractures, Abdominal Injury, Soft Tissue Loss TBD
9:30 a.m.	Vascular Injury in Adult BP: Acute Physical Exam, Role of Vascular Reconstruction at Injury, or with Delay in Management Allen T. Bishop, M.D.
9:40 a.m.	Pain: Etiology (Deafferentation, Joint Subluxation); Quality, Severity, Location, Aggravating Factors, Time Course Allan Belzberg, M.D., FRCSC
9:50 a.m.	Break and Exhibits Marriott Ballroom
<b>Diagnosis of Brachial Plexus Injury</b>	
10:45 a.m.	History and Physical Exam of Adult BPI: Motor and Sensory Exam with Emphasis on Root Avulsion Diagnosis, BMRC and Other Measures, Serial Assessments and Record Keeping Robert J. Spinner, M.D.
11:00 a.m.	Examination of the Baby and Young Child: Role of Serial Assessments Howard M. Clarke, M.D., Ph.D., FRCS, FACS, FAAP

Imaging of Brachial Plexus	
11:10 a.m.	Neuroradiology Controversy: MRI vs CT Myelography; Role for MRI Neurography Below Nerve Roots TBD
11:25 a.m.	Ultrasound: Diagnosis of Root Avulsion; Other Uses Jay Smith, M.D.
11:35 a.m.	Preoperative Electrophysiology Brian Crum, M.D.
11:55 a.m.	Other Evaluation: Pulmonary Function Studies, INSP/EXP Views; X-Rays for Associated Injury Allen T. Bishop, M.D.
12:00 p.m.	Role of the Therapist in adult BP and OBBP Management Preoperatively Kimberly N. Jensen, P.T., C.H.T.
12:10 p.m.	Lunch and Exhibits Marriott Ballroom
Adult Surgical Management	
Surgical Decision-Making in Adult Plexus	
1:30 p.m.	Timing of Surgical Intervention: When to Refer Your Patient, When to Operate Alexander Y. Shin, M.D.
1:45 p.m.	Exploration and Open (Intraoperative) Electrophysiology: Techniques, Significance and Value of SSEP, MEPs, Nerve-to-Nerve and Neuromuscular Stimulation Robert J. Spinner, M.D.
2:00 p.m.	Exploration Findings: Nerve and Vessel Appearance. Scar, Soft Tissues Milan V. Stevanovich
2:05 p.m.	What Can We Do? Define and Inform Re: Initial Nerve Management Options: Nerve Graft, Nerve Transfer (Extra and Intraplexal), FFMT, Tendon and Joint Procedures in Adults Amy M. Moore, M.D.
2:20 p.m.	Indications/Contraindications/Priorities in the Adult Peter M. Murray, M.D.
2:30 p.m.	Adult patient's expectations and goals versus realistic outcomes: Patient education: teaching tools and methods – Allan Belzberg, M.D., FRCSC
Panel Discussion: Adult cases	
2:40 p.m.	Upper Trunk – Scott Wolfe, M.D. /Allen T. Bishop, M.D. <ul style="list-style-type: none"> <li>• Global case 1: no vascular injury</li> <li>• Global case 2: vascular injury</li> <li>• Delayed treatment case</li> </ul>
3:00 p.m.	Break with Exhibits Marriott Ballroom
Operative Treatment of OBBP	
3:45 p.m.	Indications for surgical reconstruction in OBBP: when to observe and when to operate – Howard M. Clarke, M.D., Ph.D., FRCS, FACS, FAAP
4:00 p.m.	Priorities and reconstructive options in children with Erbs palsy Scott H. Kozin, M.D.
4:10 p.m.	Erbs' case study Howard M. Clarke, M.D., Ph.D., FRCS, FACS, FAAP
4:20 p.m.	Priorities and reconstructive options in children with global palsy: Group discussion: grasp reconstruction in child with global palsy Scott H. Kozin, M.D. (10 min) Howard M. Clarke, M.D., Ph.D., FRCS, FACS, FAAP (10 min)

4:40 p.m.	Nerve graft of viable root vs. nerve transfer: Case presentation with discussion Howard M. Clarke, M.D., Ph.D., FRCS, FACS, FAAP and Scott H. Kozin, M.D.
4:55 p.m.	Adjourn
<b>Friday, April 14, 2017</b>	
6:45 a.m.	Breakfast: Stump the Professor - 3 cases from participants Marriott Ballroom
6:45 a.m.	Exhibits Marriott Ballroom Foyer
7:45 a.m.	Move to Stabile 9 Lab/Classroom
<b>Adult Brachial Plexus</b>	
<b>Group 1: 8:00 – 9:30 AM</b>	
<b>Group 2: 10:00-11:30 AM</b>	
<b>Classroom – Stabile 9</b>	
8:00 a.m.-11:30 a.m.	Classroom Session: <ul style="list-style-type: none"> <li>• Outcomes of Nerve grafting: issues and nuances (20 Minutes) <ul style="list-style-type: none"> <li>○ Amy M. Moore, M.D.</li> </ul> </li> <li>• Outcome of nerve transfers for elbow function (20 Minutes) <ul style="list-style-type: none"> <li>○ Alexander Y. Shin, M.D.</li> </ul> </li> <li>• Outcome of nerve transfers for shoulder function (20 Minutes) <ul style="list-style-type: none"> <li>○ Peter M. Murray, M.D.</li> </ul> </li> <li>• Surgical Planning: Case scenarios (60 Minutes) <ul style="list-style-type: none"> <li>○ Amy M. Moore, M.D. Alexander Y. Shin, M.D., Peter M. Murray, M.D.</li> </ul> </li> </ul>
<b>Adult Brachial Plexus</b>	
<b>Group 1: 10:00-11:30 AM</b>	
<b>Group 2: 8:00 – 9:30 AM</b>	
<b>Hands-On Lab – Stabile 9</b>	
8:00 a.m.-11:30 a.m.	Hands-On Skills Laboratory <ul style="list-style-type: none"> <li>• Supraclavicular Approach: Demonstration and Lab – Robert J. Spinner, M.D.</li> <li>• Infraclavicular Approach: Demonstration and Lab – Scott Wolfe, M.D.</li> <li>• Cable Graft Fabrication with Fibrin Glue and Grafting Methods – Allen T. Bishop, M.D.</li> </ul> <p>Moderator: Scott Wolfe, M.D.</p>
9:30 a.m. – 10:00 a.m.	Break – Stabile Break Room <ul style="list-style-type: none"> <li>• Group 1 Transition to Lab</li> <li>• Group 2 Transition to Classroom</li> </ul>
11:30 a.m.	Lunch and Exhibits Marriott Ballroom
12:45 p.m.	Return to Stabile Facilities (Lab & Classroom)

## Advanced Brachial Plexus Issues

**Group 1: 1:00 – 2:30 PM**

**Group 2: 3:30-5:00 PM**

### Classroom – Stabile 9

1:00 p.m.-2:30 p.m.	<ul style="list-style-type: none"><li>• Distal nerve transfers -<ol style="list-style-type: none"><li>a) Radial Nerve (10 Minutes) – Amy M. Moore, M.D.</li><li>b) Ulnar Nerve (10 Minutes) – Amy M. Moore, M.D.</li><li>c) Median Nerve (10 Minutes) – Amy M. Moore, M.D.</li></ol></li><li>• Free Muscle Techniques and Results (20 Minutes) – Alexander Y. Shin, M.D.</li><li>• Amputation? When is it a surgical option? (15 Minutes) – Allan Belzberg, M.D., FRCSC</li><li>• Late reconstruction in OBBP: Shoulder, elbow, forearm and wrist (20 Minutes) – William J. Shaughnessy, M.D.</li></ul>
3:30 p.m.-5:00 p.m.	

## Proximal Nerve Transfer Techniques

**Group 1: 3:30-5:00 PM**

**Group 2: 1:00 – 2:30 PM**

### Hands-On Lab – Stabile 9

1:00 p.m.-2:30 p.m.	<ul style="list-style-type: none"><li>• Harvest of SPA and transfer to SSN: Demonstration and Lab – Peter M. Murray, M.D.</li><li>• ICN motor and sensory: Demonstration and Lab – Allen T. Bishop, M.D.</li><li>• Biceps motor branch, lateral cord contribution to median nerve: Oberlin transfer, double fascicular transfer: Demonstration and Lab – Milan V. Stevanovich, M.D.</li><li>• Triceps to Axillary (Leechavengvong): Demonstration and lab – Scott Wolfe, M.D.</li></ul>
3:30 p.m.-5:00 p.m.	

2:30 p.m.-3:15 p.m.	Break <ul style="list-style-type: none"><li>• Exhibits</li><li>• Case Presentations Presented by Faculty</li></ul> Marriott Ballroom
3:15 p.m.	Move back to Stabile 9 Classroom and Lab

6:00 p.m.-7:00 p.m.	Course Reception Location: TBD
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## Saturday, April 15, 2017

6:45 a.m.-7:45 a.m.	Breakfast: Stump the Professor - 3 cases from participants Marriott Ballroom
6:45 a.m.-7:45 a.m.	Exhibits Marriott Ballroom Foyer

## Controversies in Brachial Plexus Reconstruction

**Group 1: 8:00-9:30 AM**

**Group 2: 10:00-11:30 AM**

**Classroom – Stabile 9**

8:00 a.m.-9:30 a.m.	<ul style="list-style-type: none"><li>• Controversies in BP reconstruction (20 Minutes) – Robert J. Spinner, M.D.</li><li>• Grasp: Should we even try (20 Minutes) – Allen T. Bishop, M.D.</li><li>• Case Presentations: grasp (20 Minutes) – Allen T. Bishop, M.D.</li><li>• Pain in BPI<ul style="list-style-type: none"><li>○ Pharmacologic Management of Pain (15 Minutes) - Keith A. Bengston, M.D.</li><li>○ Surgical Management of Pain (15 Minutes) – Allan Belzberg, M.D., FRCSC</li></ul></li></ul>
10:00 a.m.-11:30 a.m.	

## Reconstructive Procedures: Distal Nerve Transfers Muscle/Tendon Transfers

**Group 1: 10:00-11:30 AM**

**Group 2: 8:00-9:30 AM**

**Hands-On Lab – Stabile 9**

8:00 a.m.-9:30 a.m.	<ul style="list-style-type: none"><li>• Distal radial nerve transfers: Demonstration and Lab – Amy M. Moore</li><li>• Median Nerve Transfers – Scott Wolfe, M.D.</li><li>• Ulnar Nerve Transfers – Amy M. Moore</li><li>• Grasp with Brachialis or ECRL to FDP - Alexander Y. Shin, M.D.</li><li>• Pinch: BR to FPL, IP Fusion - Peter M. Murray, M.D.</li><li>• Elbow flexorplasty with Latisimus – Milan V. Stevanovich, M.D.</li><li>• Latissimus dorsi +/- Teres major Tendon Transfer for Shoulder Motion – Scott H. Kozin, M.D.</li></ul>
10:00 a.m.-11:30 a.m.	

9:30 a.m.	<p><b>BREAK</b></p> <ul style="list-style-type: none"><li>• Group 1 Transition to Lab</li><li>• Group 2 Transition to Classroom</li></ul> <p>Stabile Break Room</p>
11:30 a.m.	<p>Closing discussion/Q&amp;A</p> <p>Stabile 9 Classroom</p>
12:00 p.m.	<p>Adjourn</p>