

Microvascular Syllabus

(Syllabus adapted from originally created by Brian Nussenbaum, MD)

Microvascular Faculty:
Shaun C. Desai, MD
Kofi Boahene, MD
Patrick Byrne, MD
Peter Vosler, MD, PhD

Over the last several years, we have created a “Microvascular Club” on Thursday evenings that meet 1 to 2 times a month to discuss the outline below. Prior to these informal meetings, it’s expected that the trainee review the relevant pertinent landmark articles, which are assigned with each topic to allow for a more in-depth discussion. Fellows and trainees in the past have found these small group settings with the attending to be extremely beneficial from an educational standpoint.

I. Basic Concepts:

- Microsurgical Technique/Rat Wet Lab (Ackland Tapes)
- Perioperative Management & Monitoring
- Thrombosis/No Reflow/Microvascular Salvage/Leeches
- Considerations with prior chemo or radiotherapy
- Vessel Depleted Situations
- Neurosensory flaps
- Outcomes assessment
- Distraction osteogenesis/Bone morphogenetic proteins/Tissue Engineering
- Use of medical models, Virtual Surgical Planning, 3D printing

II. Donor Sites:

- Fasciocutaneous:
 - Radial forearm, lateral arm, scapula, anterolateral thigh
- Musculocutaneous:
 - Rectus, latissimus, gracilis
- Osteocutaneous:
 - Fibula, iliac crest, scapula, radial forearm
- Fascial:
 - Temporoparietal, radial forearm
- Enteric:
 - Jejunum, Gastro-omental
- Other (non-microvascular donor sites):
 - Submental island, temporalis, pectoralis, trapezius, supraclavicular, FAMM

III. Defect Reconstruction:

Oromandibular

Anterior defects, lateral defects, TMJ reconstruction

Tongue

Oral and tongue base

Tonsil/tonsil-palate/soft palate

Hypopharynx/cervical esophagus

Partial pharyngectomy with laryngeal preservation

Laryngeal

Maxillectomy/orbit/Hard palate

Skull base and Temporal Bone (Anterior/Middle/Lateral)

Scalp

Lip

Major skin defects

Facial Nerve and Total Parotidectomy