

*Microsurgery Training and Research Laboratory,
Department of Orthopaedic Surgery, Columbia University*

***BASIC COURSE IN MICROSURGERY
5 DAYS***

The purpose of microsurgical training is to develop specialized surgical skills to facilitate the repair of the small vessels and nerves.

Training is conducted as a three part process: reading the textbook, viewing the training videotapes and practicing surgical skills.

Dr. Brian Cooley's textbook: "A Laboratory Manual for Microvascular and Microtubal Surgery" and series of video tapes are used.

We are using our own video library created in the department.

SESSION ONE: (5-6 hrs.)

Welcome by the Course Director and brief description of course content and teaching format.

Morning session:

Videos: #1 "A sound mind in a sound body" by Dr. H.M. Dick

#2 "Getting ready for Microsurgery: Meet the Microscope"

#3 "Mechanics of microsurgical suturing"

Working knowledge of the use of the operating microscope, micro instruments, fine suture 9-0, 10-0 by practicing suturing on different planes using latex rubber glove practice card.

Practice suturing silastic lumen using tubing

Lunch

Afternoon session:

Video: "Two-stay Interrupted End-to-End Anastomosis on a chicken model"

Practice end-to-end arterial anastomosis using interrupted suturing using the chicken leg.

a. forehand

b. backhand

c. vein anastomosis if time permits.

SESSION TWO: (5-6 hrs.)

Morning session:

Videos: "End-to-end arterial anastomosis on rat models with revision of the gaps using Q-tip"

Practice end-to-end arterial anastomosis using interrupted technique.

Video: "End-to-end arterial anastomosis on rat model using One-way-up" technique

Practice end-to-end arterial anastomosis using interrupted technique using one-way-up suturing.

Lunch

Afternoon session

Video: "Simple Vein End-to-end anastomosis using interrupted technique"

Practice end-to-end venous anastomosis using interrupted suturing.

SESSION THREE: (5-6 hrs.)

Morning session:

Videos: “Interpositional Vein Graft “

Practice interpositional vein graft using femoral vein and femoral artery.

Lunch

Afternoon session

Practice simple end-to-end artery or vein or both times permitted.

SESSION FOUR: (5-6 hrs)

Morning session:

Videos: ““End-to-side anastomosis “

Practice end-to-side anastomosis using femoral artery to the side of femoral vein.

Lunch

Afternoon session

Practice end-to-side anastomosis using femoral vein to the side of femoral artery.

SESSION FIVE: (5-6 hrs.)

Morning session:

Videos: “Basic Techniques in Peripheral Nerve Repair”

Practice epineural repair using sciatic nerve.

Afternoon session

Practice different procedures as needed.

PRACTICE EXAM:

ARTERIAL AND VENOUS ANASTOMOSIS WITHIN A TIME LIMIT (30-40min)