

# Continuing Professional Development: Microsurgery Training for Orthopaedic Hand Surgeons

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## Citation

D Power, S Tan. *Continuing Professional Development: Microsurgery Training for Orthopaedic Hand Surgeons*. The Internet Journal of Hand Surgery. 2006 Volume 1 Number 1.

## Abstract

Microsurgical training is essential for those embarking on a career in hand surgery. Training courses in the UK are generally oversubscribed with long waiting lists and fees are now in excess of £1000 for a five day basic microsurgery training course. With meagre study leave budgets already stretched beyond breaking point, trainees may decide to look further a field for cheaper alternatives. Singapore has a world-renowned expertise in microsurgery reconstruction techniques and the Department of Hand and Reconstructive Microsurgery at the National University Hospital (NUH) Singapore (figure 1) runs regular training courses for surgeons working within their unit and throughout the rest of Asia.

The NUH website describes the courses available. They run microsurgery training courses throughout the year. There are two Basic Courses per month and Advanced, Refresher, Free Flap and Replant courses are available on request. The Basic Course costs \$800 Singapore (about £270 or US \$600).

The course administrator may be contacted via email and places reserved. Helpful information regarding hostel accommodation is also provided.

## Figure 1

Figure 1: NUH Singapore



The courses are conducted in the Microsurgery Training Laboratory on the NUH campus (figure 2). The courses are limited to three participants. There is one technician, a former theatre sister, who is highly skilled and is always on hand to offer advice and assistance. The laboratory is small but well equipped and most importantly, air-conditioned. The courses are run to worldwide recognised standards. There are video presentations that are followed by practical sessions.

**Figure 2**

Figure 2: Microsurgery Training Laboratory



### **THE BASIC MICROSURGERY COURSE AND CERTIFICATION EXAMINATION**

Day 1 concentrates on the mental and physical preparation necessary for good microsurgical practice. It also covers instrumentation and instrument care, basic suture techniques and principle of vascular anastomosis. The afternoon session culminates with vessel repair in a chicken thigh.

Day 2 each candidate is provided with an anaesthetised albino rat and performs a dissection of the tail vessels under the microscope and then at least 3 anastomoses of the tail vessels before lunch. The afternoon session involves a groin dissection and preparation, division and anastomosis of the femoral arteries.

Day 3 there is another rat and bilateral femoral artery and vein anastomoses with an inferior epigastric vein interposition graft to one of the arteries (figure 3).

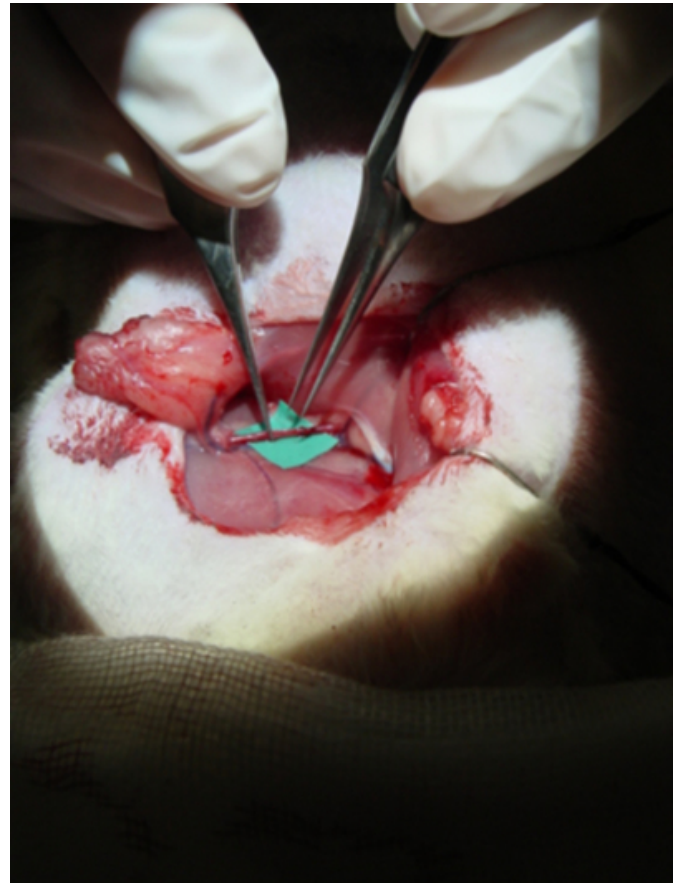
Day 4 there is an arterial end to side anastomosis and creation of AV fistula.

Day 5 there is a formal practical examination with a timed

exercise to perform a rat groin dissection and mobilisation of the femoral vessels, resection of a small segment and repair of both artery and vein with satisfactory and sustained flow - all in less than 2 hours.

**Figure 3**

Figure 3: Testing Patency in Rat Femoral Artery Repair



Although the course timetable is full, there is ample time for free practice. Arrangements are informal and breaks can be taken at any time – very important when performing microsurgical procedures.

The courses at NUH are usually attended by trainee surgeons from throughout Asia. European surgeons may be put off by the distance involved and the cost of travel, but even with flights, accommodation, food and taxis the European trainee will spend far less than the equivalent course fee closer to home. We would recommend the NUH courses to any UK trainees considering a microsurgery instructional course.

### **FOR MORE INFORMATION CONTACT**

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## References

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