SURGICAL SIMULATORS

THESE THREE PAPERS DESCRIBE INGENUOUS METHODS FOR CREATING OR ADAPTING SURGICAL SIMULATORS AT MINIMAL COST.

A simple, low cost construct for suturing practice using adhesive tape and 'collar-and-cuff' foam off-cuts

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A video demonstration showing how to build this device is available at:

<http://youtu.be/epgJ2o9G5GM>

Fabric adhesive tape has been described previously as a low cost method for suturing practice.¹ We also use tape for suturing practice, with the addition of foam off-cuts from 'collar-and-cuff' slings. Woven fabric tape is taped over a section of spare foam, extending past the foam's edges to secure the construct to the work surface. An incision can then be made and closed (Fig 1). The addition of foam is advantageous as it mimics the arrangement of skin and subcutaneous tissue, enables scalpel incisions to be made and allows sutures that require tissue depth such as the vertical mattress to be practised.

Reference

1. Nicholson S. Pink tape for suturing practice. *Ann R Coll Surg Engl* 2012; **94**: 210.

Figure 1 The foam and tape construct used for suturing practice

iSurgery: a contemporary simulator for surgical education

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BACKGROUND

Endoscopic techniques are the modality of choice in many surgical specialties. Trainees are increasingly using simulators to improve skills and augment development safely. Access is limited, which protracts training and delays clinical exposure.

TECHNIQUE

We have developed a contemporary, inexpensive surgical simulator (the iSurgery device) that is easy to build and uniquely incorporates iPhone® and iPad® technology (Apple, Cupertino, CA, US). Three pieces of medium density fibreboard (50cm × 40cm) are used:

- > Piece A (the interface): A rectangular window is cut and a spring latch attached (to secure the iPhone®). Six holes are drilled (ports).
- > Piece B (the stand): A lipped shelf is made, on which the iPad® sits.
- > Piece C (the base): A pair of hinges secure pieces A to C and B to C, enabling the three pieces to fold together. Two latches are secured to each side between pieces A and C, and B and C.

Figure 1 The iSurgery device