

## **Simulating Abdominal Surgery Using Common Household Items**

**Audience:** Educators interested in providing students with simulated surgical procedures while working with a tight budget.

**Description:** We presented students with a clinical case of a patient whose small intestine was acutely obstructed by an internal hernia requiring exploratory laparotomy.

The simulated abdomens consisted of the abdominal cavity, organs and abdominal wall. The abdominal cavity was created using a plastic storage bin purchased at a discount store. Small intestines and mesentery were simulated using fabric and stuffing. The mesentery was sewn by hand to the base of the container. A small section of fabric with a small slit in the middle was attached to one corner of the bin to simulate the internal hernia. A knuckle of the “intestine” was pushed through the slit to represent the hernia. The bin was covered with an abdominal wall constructed of upholstery foam (fat) glued to fabric (skin) that was firmly tied down to the operating table.

### **Abstract:**

**Introduction:** We used common household items to provide students with the opportunity to participate in a simulated exploratory abdominal surgery.

**Methods:** Students used surgical instruments to make an incision, explore, identify and reduce an internal hernia, suture the defect, and close the abdominal incision.

**Results:** Students seemed genuinely engaged and excited, and their anecdotal comments were all positive. Materials used to create this surgical exercise for all 150 students cost under \$300.

**Conclusion:** Fabric and upholstery foam simulated skin, subcutaneous fat, and abdominal organs fairly accurately.