

Surgical Sam

Infant Surgical Team Trainer

NOW AVAILABLE WITH GENERAL SURGERY MODULE (#4096)



**Bring
a new
dimension to
clinical and team
training in your
most high-stakes
areas — the ER
and OR.**

Add Hands On, High Fidelity Simulation to Your Pediatric Team Training in General Surgery

Unlike other patient mannequins that simulate only basic physiology, Surgical Sam ‘moves the needle’ on pediatric surgical team training by allowing important steps of surgery to really happen – allowing OR teams to fully immerse in simulations to optimize performance, safety, and outcomes for children.

Surgical Sam is the world’s first beating heart, breathing, bleeding, high fidelity team trainer for pediatric surgery. The base unit, with intubatable airway, incision- and suture-compatible skin, and bilateral radial pulses, accepts specialty modules for multi-discipline team training scenarios. Configured with pediatric General Surgery Module (#4096) it presents an abdomen with the look and feel of in vivo pediatric tissues as well as the physiologic functions of breathing lungs and bleeding vessels, controlled remotely and allowing the surgical field to remain unencumbered.

Co-developed by The Chamberlain Group and Boston Children's Hospital Simulator Program (SIMPeds) as the centerpiece of their team training initiatives in pediatric surgery, Surgical Sam is a modular system representing a 14-month-old infant. The base unit, with intubatable airway, incision- and suture-compatible skin, and bilateral radial pulses, accepts specialty modules for multi-discipline team training scenarios.

NEW TO THE MARKET IN 2016

Our Surgical Sam Trainer configured with pediatric **General Surgery Module (#4096)** presents an abdomen that provides the look and feel of in vivo pediatric tissues as well as the physiologic functions of breathing lungs and bleeding vessels, controlled remotely and allowing the surgical field to remain unencumbered.

The thorax and abdomen of the General Surgery Module present an intubate-able trachea, ventilatable lungs, liver and gallbladder, esophagus, stomach and attached mesentery membrane, small bowel with rooted mesentery, colon, and inferior vena cava. Bowels can be filled with succus entericus simulant and are suturable for active repair. There are separate liver and IVC blood flows and a diffuse surgical bleed, all within a fluid-tight abdominal cavity. Bleeder sites on the abdominal IVC are obscured by the small bowel and colon. Bleeding liver has embedded sensors that respond to the simulated electrocautery pen with visual and auditory cueing. Hemorrhagic events can be controlled at each of the bleed sites via remote feeds, enabling pre-planned scenarios to be enacted at the OR table and directed in real time in response to clinical interventions. Radial pulse can be simulated using hand-held bulb or our Beating Heart Controller with Pulse (#1463).

“These are not novice surgeons.... The task ahead of us was to engage native teams in their native environments. So the trainers had to rise to the level of the practitioners.”

— Peter Weinstock, MD, PhD, Director, Boston Children's Hospital Simulator Program SIMPeds

“Surgical Sam is a tool that helps us elicit authentic behaviors from our teams.... These are world-class surgical teams, so we need something that's high-quality enough to elicit high-quality behaviors.”

— Christopher Roussin, PhD, MA, Director of Academics and Research, Boston Children's Hospital SIMPeds

from “Body Building.” ***The Boston Globe*** July 24, 2015



Surgical Sam Interchangeable Anatomical Modules

General Surgery Module (#4096) includes ventilation-compatible lungs, replaceable stomach, liver with a capsule bleed and simulated electrocautery effect, and suturable, replaceable small bowel and colon for perforation and other emergent procedures. Module supports hemodynamic flow to the abdominal cavity; bleed sites are externally controlled for simulating hemorrhagic events.

Cardiothoracic Module (#4095) features a beating heart with replaceable, suturable right atrium and aorta for cannulation, a suturable IVC bleed site, recloseable sternum, and ventilation-compatible lungs. Module supports hemodynamic flow to the thoracic cavity; bleed sites are externally controlled for simulating hemorrhagic events.



Surgical Sam for GS Training

INCLUDES

- Surgical Sam Chassis (#4094)
- General Surgery Module (#4096)
- Electrocautery Simulation Kit (#245)
- Simulated Succus Entericus (#205)
- Shipping Case (#4100)
- Quick Start Curriculum developed by Boston Children's Hospital

OPTIONS & REPLACEMENT PARTS

Surgical Sam's **Incisable Skin** (#4098), **IVC with Bleeder Sites** (#4110), **Stomach with Omentum** (#4115), **Small Bowel with Rooted Mesentery** (#4113), and **Colon** (#4117) are easily replaced after use. Optional equipment includes **Simulated Blood Concentrates** (#265-266), and **Blood Circuit Kits** (#261-266).

Surgical Sam for CT Training

INCLUDES

- Surgical Sam Chassis (#4094)
- Cardiothoracic Module (#4095)
- Beating Heart Controller with Pulse (#1463)
- Variable Rate Controller (#205)
- Shipping Case (#4100)
- Quick Start Curriculum (#32004) developed by Boston Children's Hospital

OPTIONS & REPLACEMENT PARTS

Surgical Sam's **Incisable Skin** (#4098) and the cannulatable **Right Atrium** (#4120) and **Aorta** (#4119) of Sam's Beating Heart are easily replaced after use. Optional equipment includes **Beating Heart Compressor** (#1204), **Air Pressure Regulator** (#267), **Simulated Blood Concentrates** (#265-266), and **Blood Circuit Kits** (#261-266).



Bringing Practice to the Practice of Medicine®



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thechamberlaingroup

THE CHAMBERLAIN GROUP produces anatomically accurate medical models that capture the consistency and response of living tissue, providing the best alternative to animals and cadavers for training in new devices and procedures.

In close collaboration with medical device companies and teaching hospitals in over 50 countries, we meet procedural training objectives with clean, smart solutions that illuminate, educate, and differentiate.

Our custom anatomy is recognized worldwide for its superior visual and experiential realism. With applications for cardiothoracic, vascular, GI, reproductive, pulmonary, orthopedic, pediatric and general surgery training, our clients include teaching hospitals, regional hospitals, medical device manufacturers, pharmaceutical companies, biotech, and researchers in over 50 countries. As pioneers in the creation of mimetic tissue since 1999, we have developed and offer over 500 products to our international clientele.

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