

Sant Dnyaneshwar Shikshan Sanstha's

# HON. SHRI ANNASAHEB DANGE AYURUED MEDICAL COLLEGE & POST GRADUATE RESEARCH CENTER

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## KAUSHALYA Simulation and Skills Centre

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### Introduction:

Acharya Sushruta is considered the "Father of Plastic Surgery". He was a great teacher and beautifully illustrated the significance of both theoretical and practical knowledge by comparing them to the two wings of a bird.

The Sushruta Samhita, as a surgical treatise, places a greater emphasis on practical training. Students were expected to hone their skills on various materials that simulate actual conditions. for example, Bandaging, should be practiced by tying bandages around the specific limbs and different parts of a full-sized doll of stuffed linen.

A Simulation and Skills Centre "a facility in which students and qualified staff learn clinical, communication, and information technology skills to a specified level of competence prior to or coordinated with direct patient contact". The Simulation and skill Centre exists to help students in health care professions acquire, maintain, and improve their clinical skills. These Centre aid in ensuring that all students have the necessary learning opportunities and assessments before approaching real patients.

# Aim of the Kaushalya Simulation and skills Centre

- To become a Centre of Excellence to professionalize medical education and training
- To provide the clinical skills to health care professionals that are deemed necessary for the effective and safe management of future patients

# Objectives for the Kaushalya - Simulation and Skills Centre

- To provide the necessary basic knowledge, motivation, and hands-on training
- To provide them with a stimulating environment that will stimulate the patient in the actual hospital or clinic settings
- To build the students' self-confidence by allowing them to perform a real-world procedures.

#### VISION

Kaushalya Simulation and Skills Centre aims to improve systems and team performance across the organization through the use of differing simulation modalities. These modalities work with the team, individual and the wider organization. Its aim to support a safer environment further enhancing patient outcomes across the health system.

#### **MISSION**

- The Simulation Centre for Advanced Clinical Skills advances ADAMC institute teaching, training, certification programs through the integration of simulation techniques, training technology, and practice assessment.
- ➤ Primary mission is to strengthen participants' cognitive understanding and procedural skills in order to:
- ☐ Enhance professional performance and safety practices
- □ Develop experiential, contextual and immersive approaches
- for healthcare teams
- □ Promote the Organization's institutional commitment to appropriate and efficient care
- Develop and enhance research activities through the use of simulation

# Advantages of Learning in a Simulation Environment

- 1. The student will have hands on experience with caring for a simulator or standardized patient in a safe environment before they interacting with a clinical patient.
- 2. The simulators allow students to practice their assessment skills in depth by performing Procedures like intubation, adult CPR and Child CPR.
- 3. Students can experience a specific simulated skill /procedure / clinical scenario / therapeutic communication prior to entering inpatient, outpatient or community sites.
- 4. The audio-visual system can record each scenario and give students and faculty the opportunity to review each case during a debriefing session.
- 5. Common and uncommon clinical experiences can be created, replicated and practiced by students.
- 6. The Simulation Centre provides a safe setting for students who need remediation.

### List of Simulators

Sr.No	Name of Simulator
1	Adult CPR Manikin
2	Child CPR Manikin
3	Intubation Simulator
4	Spinal and Epidural Simulator
5	Injection Trainer
6	Incision and Suturing Trainer
7	Knot tying Trainer
8	Bandaging Simulator
9	Catheterization Simulator
10	Birthing Simulator
11	Copper T Insertion Trainer

### Adult CPR Manikin



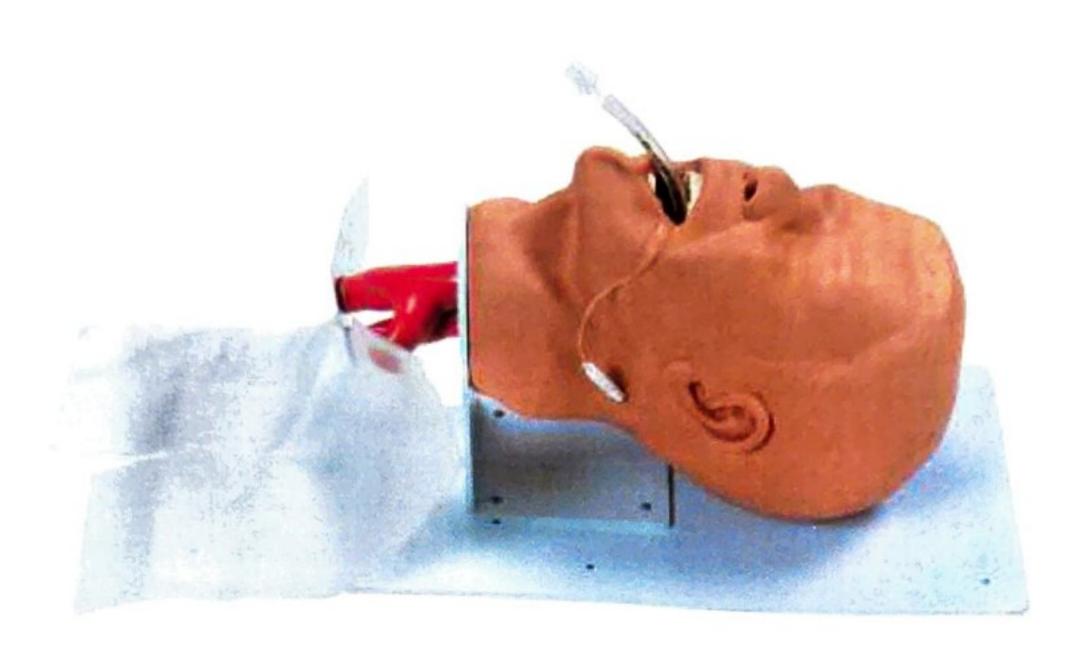
- This high quality and economical AHA compliant BLS manikin is a complete solution to train, monitor, analyze and debrief CPR performances.
- •The manikin connects with the app using a strong and reliable Bluetooth connection no need to set up a wireless network.

#### Child CPR Manikin



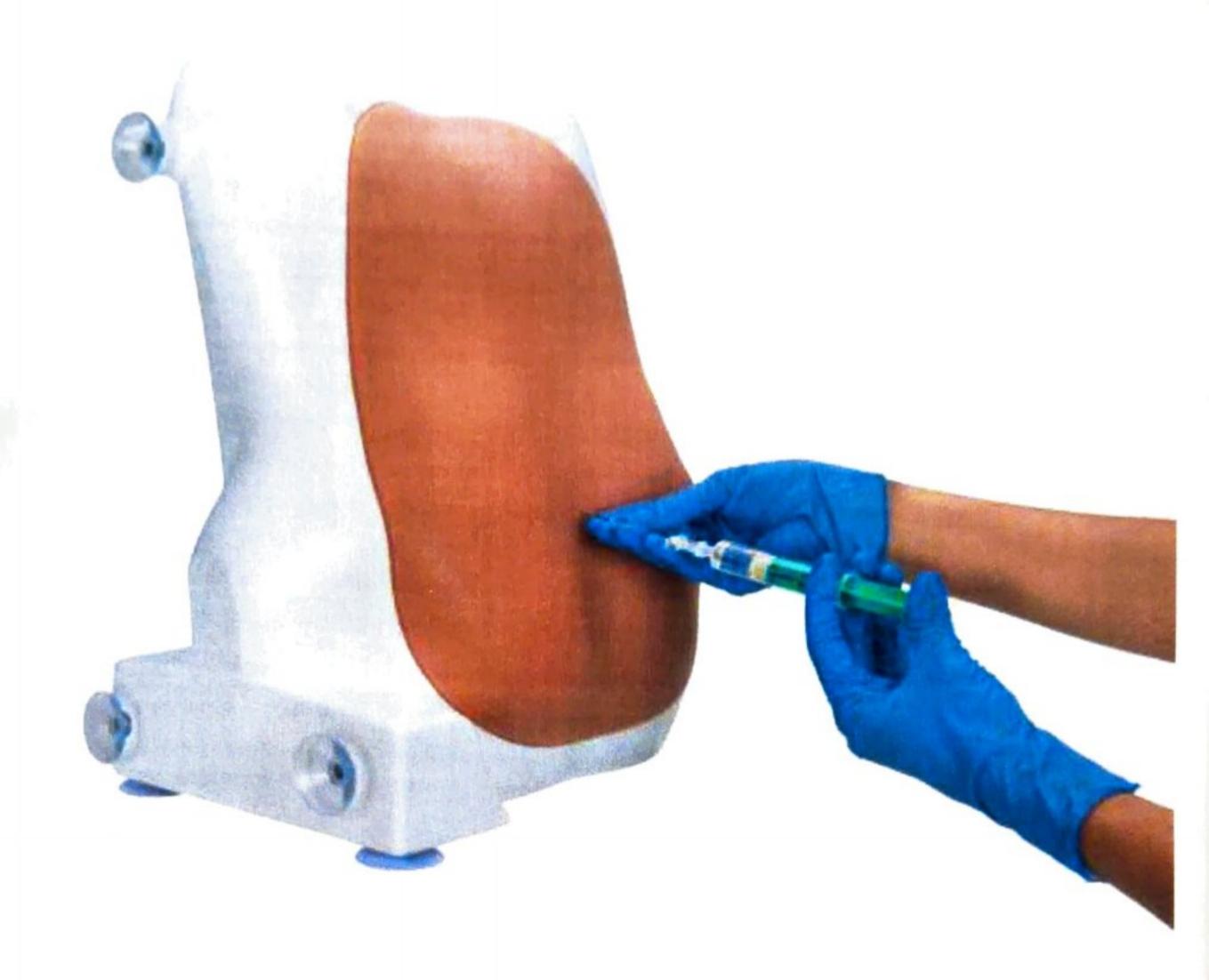
- •Visible anatomical landmarks include the sternum and the rib cage, plus substernal notch.
- •The manikins also simulate the realistic head tilt and chin lift necessary for opening the airway.
- •A chest rise demonstrates a successful rescue breath.
- The use of the disposable, economical airway/face shield avoids cross-contamination and does not require cleaning, disinfecting, or disassembly!

### Intubation Simulator



- This detailed adult intubation head comes mounted for clinical teaching and practice of advanced airway management.
- Intubation procedures and skills, including anatomy knowledge and recognition, endotracheal intubation, nasotracheal intubation, use of field emergency airway adjunct tubes like LMAs and Combitube, securing, and suctioning, and maintenance of the installation can all be practiced with this unit

### Spinal and Epidural Simulator



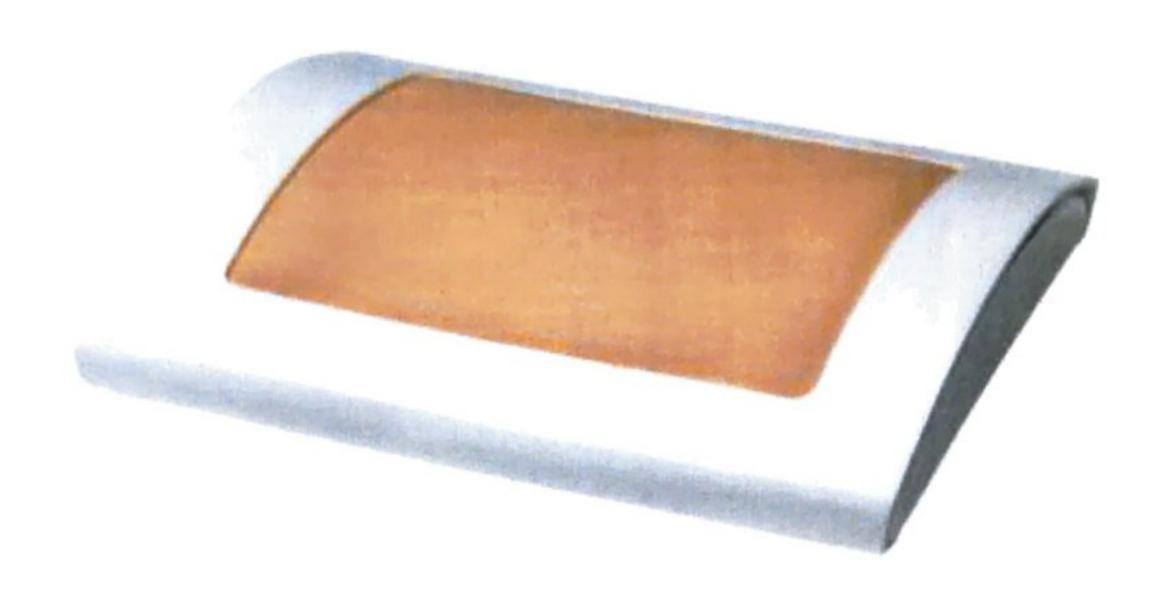
- Epidural anesthesia using the loss-of-resistance and the hanging-drop technique
- Spinal anesthesia with realistic resistance of the dura and arachnoid mater with or without a cannula
- Fluid-filled spinal canal with realistic outflow rate thanks to the ability to adjust the excess pressure
- An epidural catheter can be inserted into the epidural space
- Closed water system
- Easy to clean

### Injection Trainer



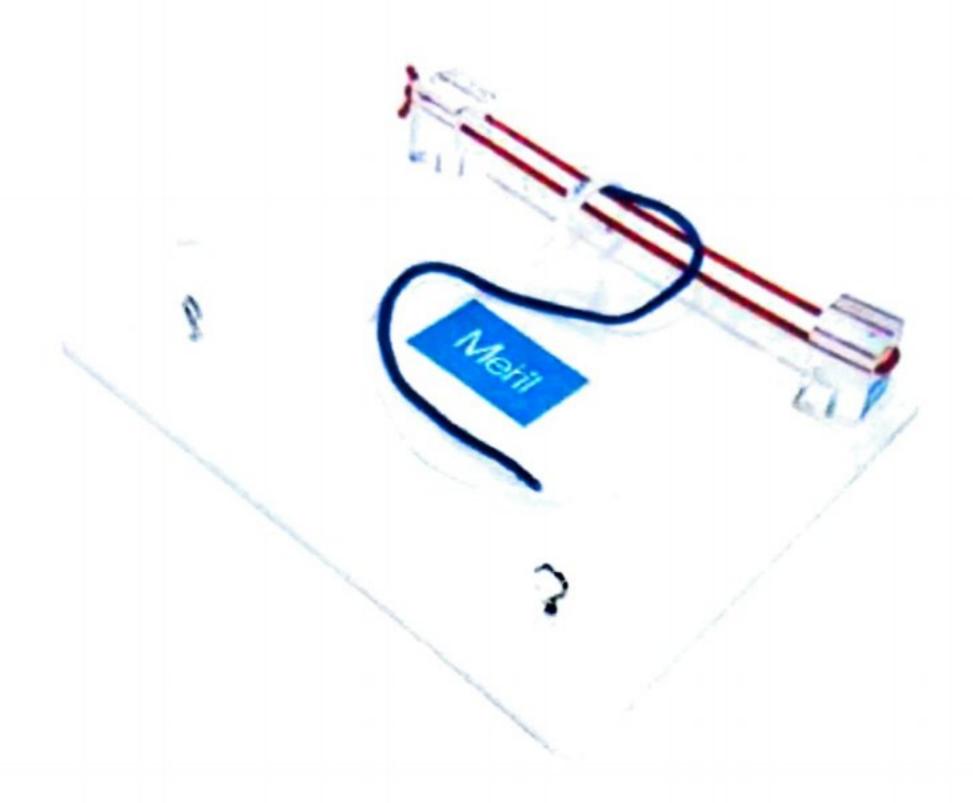
- This revolutionary training arm provides complete venous access for IV therapy, phlebotomy, intramuscular and intradermal injections.
- •An extensive 8-line vascular system allows students to practice venipuncture at all primary and secondary locations, including starting IVs and introducing Over the Needle IV Catheters.
- •Soft, flexible fingers are molded separately with extreme attention paid to every detail right down to the fingerprints! Flexion of the wrist helps students develop manipulation skills.
- •The replaceable skin rolls as the veins are palpated, and a discernible "pop" is felt when entering the veins.

### Incision and Suturing Trainer



- •A great way to practice surgical opening and closing techniques.
- Economical reversible pad
  It provides learning of all types of sutures.

# **Knot tying Trainer**



- Learning basic surgical knot tying can be difficult at the beginning.
- This simulation most common one and two handed tying techniques as well as instrument ties needed by a general surgeon.
- It also provides learning of superficial and deep artery knot tying.

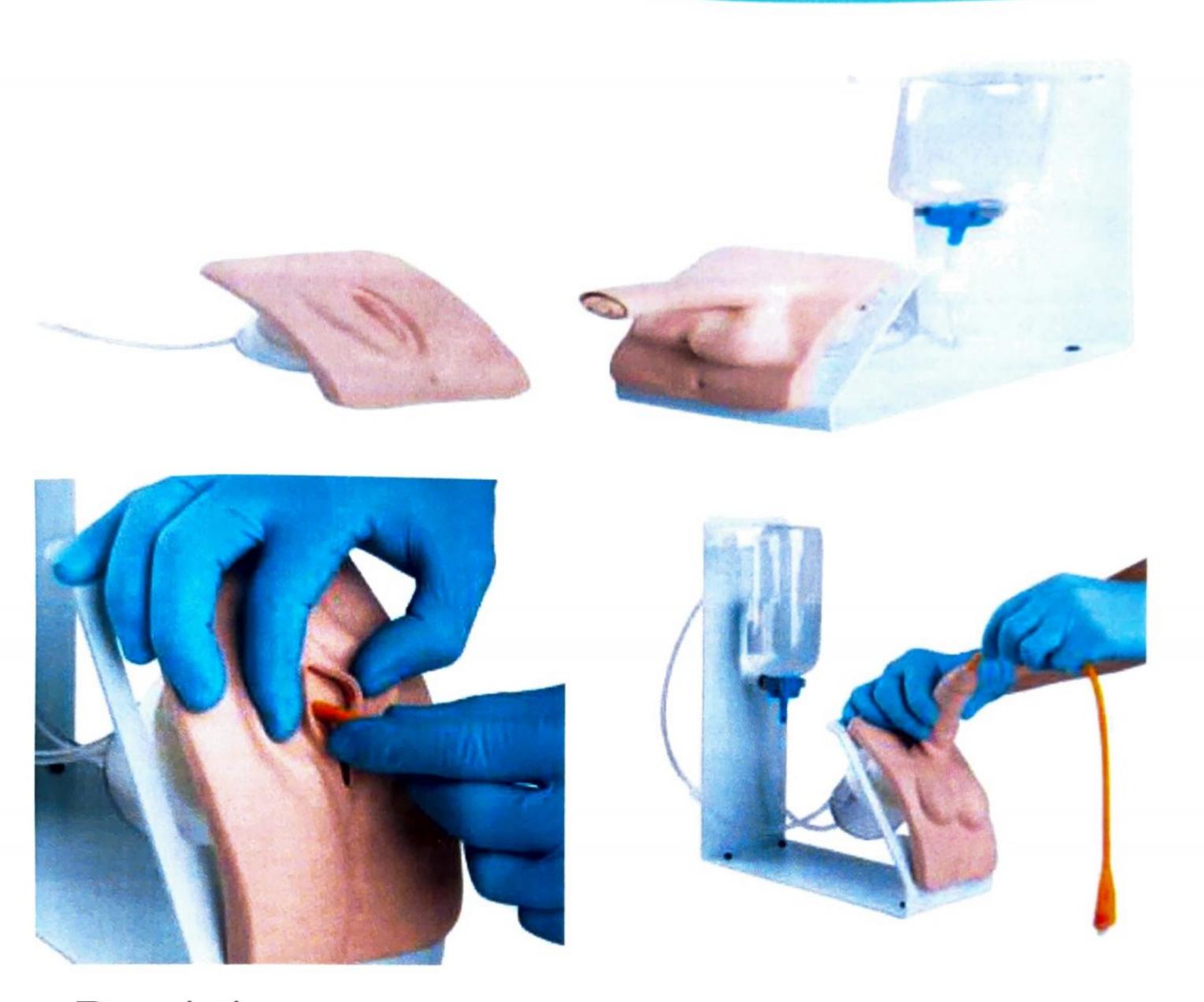
### **Bandaging Simulator**



### Description

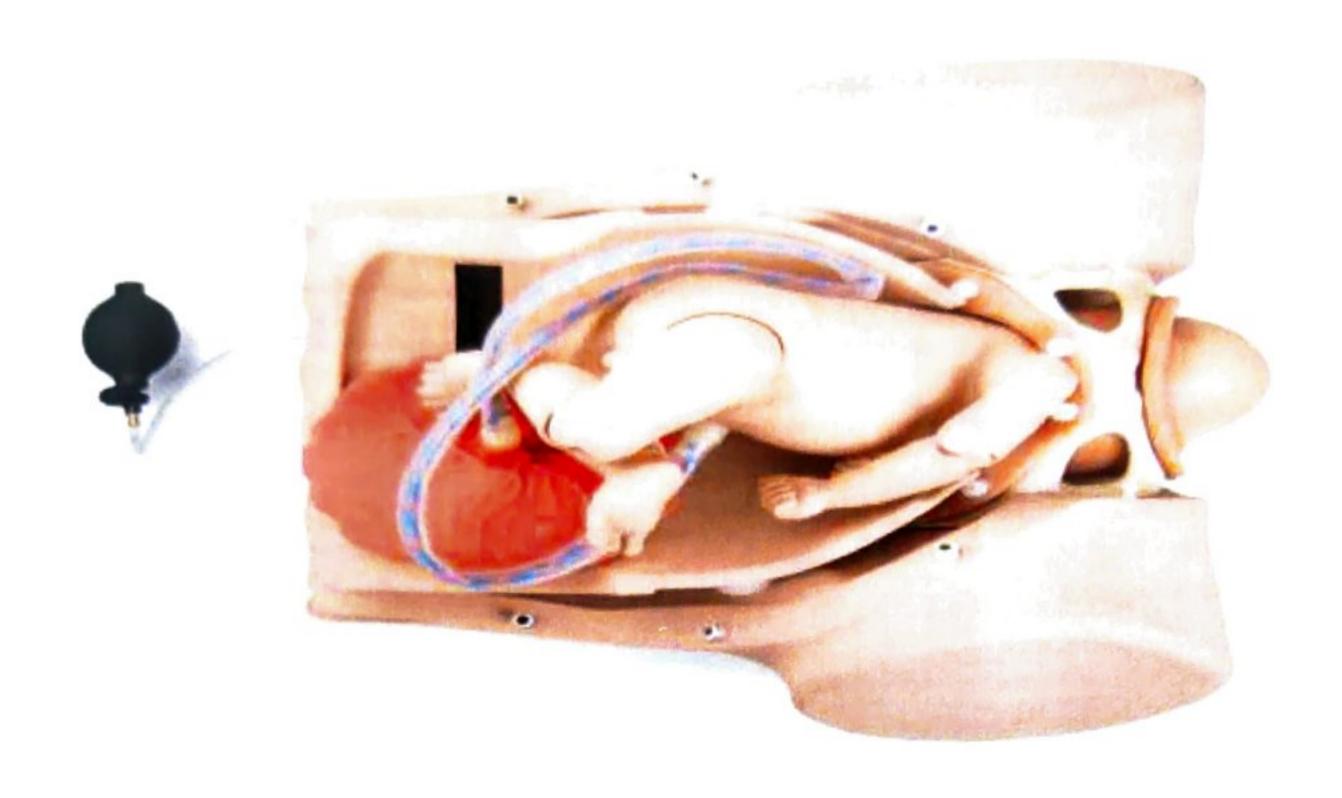
• This simulator allows to practice all types of Bandhas (Bandaging technique).

# Catheterization Simulator



- •With the catheterization trainer set, both male and female bladder catheterization procedures can be realistically demonstrated, practiced and assessed.
- •The easy-to-change genital inserted into the holder and held in place with magnets.
- •Both inserts are made from soft material. Foreskin and labia are movable and the penis can be stretched.
- •This way the student can practice all the necessary gestures for catheterization

### **Birthing Simulator**

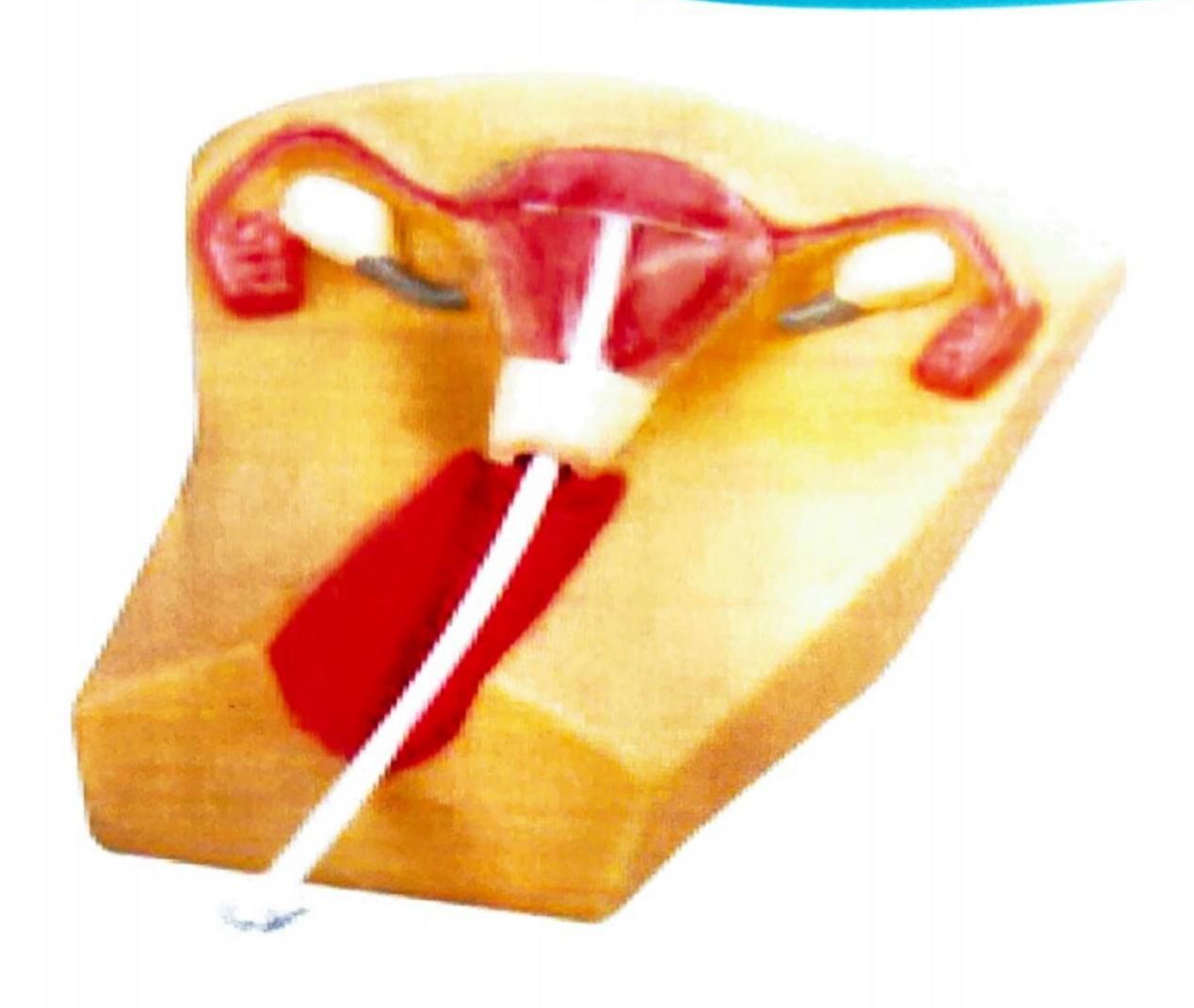


#### Description

The Birthing Simulator allows students to view how manual interventions affect the foetus in-utero and provides training opportunities in the following delivery skills:

- Normal vaginal delivery
- Normal delivery of umbilical cord and placenta
- •Palpation and assessment of fetal position and presentation
- •Diagnosis of all normal and abnormal fetal positions and presentations (like face, neck, or brow) to represent routine and difficult deliveries

# Copper T Insertion Trainer



- The Female Pelvic Organs model features a clear view of the uterus, ovaries, and fimbriae useful for gynecological skills training.
- Participants can view and practice correct IUD placement, and programs can provide valuable learning experiences across the spectrum of obstetric care.

# Kaushalya Simulation and Skills Centre Pictures

