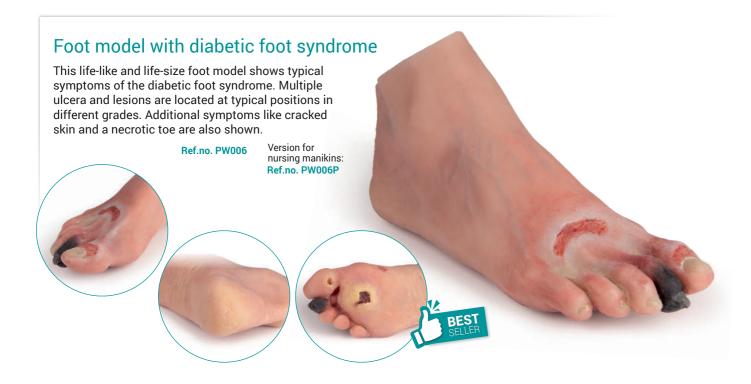


# Medical Simulators







Ref.no. SRE0700

### Ingrown Toenail Simulator (3-Pack)

SurgiReal's Ingrown Toenail Simulator was created to eliminate the need to use inadequate and unrealistic substitutes for training wedge resection and nail evulsion procedures. Included in this small, but impressive, model is a simulated bone structure designed with internal cavities to perform digital nerve blocks. The nail is "ingrown" on both sides, giving the ability to practice the procedure more than once. This model captures the form and landmarks of a human toe and presents the most common form of Onychocryptosis (ingrown toenail).

# Wound moulage sacral decubitus, cleaned

This moulage shows the sacral area with a pressure ulcus after a surgical cleaning. The necrotic tissue has been removed, wound pockets are present. The wound is available either freshly cleaned or with wound exsudate. The moulage can be used for demonstration of vacuum wound therapy. The moulage adheres on simulated patients or manikins, it can be fixed with special skin glue for longer training sessions. The anal fold is represented to demonstrate the typical challenges when dressing the wound.



# Wound moulage sacral decubitus, untreated

This moulage shows the sacral area with a pressure ulcus in an unattended stage. The tissue has died under continuous pressure and necrotic tissue is visible. The actual size of the necrotic area can not be defined and needs surgical therapy. The moulage adheres on simulated patients or manikins, it can be fixed with special skin glue for longer training sessions. The anal fold is represented to demonstrate the typical challenges when dressing the wound.

Ref.no. PW001A



This head cover can simply be pulled over the head of the Standard, Basic, Clinical Chloe or the advanced Clinical Chloe nursing doll and transforms the normal nursing doll into a doll with a geriatric appearance. The soft skin looks lifelike and feels realistic. The mouth, nose, ears and tracheostomy opening are accessible so that the doll's functions are fully preserved. The mask has a zipper on the back of the head so that it can be attached and removed without much effort.





### Orchidometer, plastic

Orchidometer for diagnosis of testicle volume. Consists of prepubertal testicles (1 to 3ml) in yellow, pubertal testicles (4 to 12ml) in orange and adult testicles (15 to 25ml) in red. Strong plastic material, hygienic, on rope.

Ref.no. OM20

for manikin Ref.no. P98



### **SELF-ADHESIVE** WOUND MOULAGES

Wound moulages venous leg ulcer, different versions

These self-adhesive wounds represent a venous leg ulcer, a substance defect in the tissue of the lower leg as a result of a chronic venous insufficiency. It represents the most common ulcus disease (60% to 80% of all ulcus diseases) in different conditions. These wounds are perfect for adhering at the ankle or lower leg and adhere by themselves. For longer use, they can be fixed with a special skin glue. All materials used in these products are dermatologically harmless.

#### Exudation phase small

This wound shows the exudation phase, the untreated condition. Fibrin and excessive wound exsudate have to be removed during the would cleaning.

Ref.no. PW002A



### Granulation phase small

This wound shows the stage of building granulation tissue. In this stage it is very important to use the suitable dressing to prevent wound healing disorders (fibrin persistence).

Ref.no. PW002B



#### Epithelisation phase small

This wound shows the stage of building epithelial tissue, finally leading to close the wound.

Ref.no. PW002C



### Exudation phase large Version

This wound shows the exudation phase, the untreated condition. Fibrin and excessive wound exsudate have to be removed during the would cleaning.

Ref.no. PW003A

### Granulation phase large

This wound shows the stage of building granulation tissue. In this stage it is very important to use the suitable dressing to prevent wound healing disorders (fibrin persistence). Ref.no. PW003B

#### Epithelisation phase large

This wound shows the stage of building epithelial tissue, finally leading to close the wound.

Ref.no. PW003C

#### Wound moulages arterial leg ulcer, different versions

These self-adhesive wounds represent an arterial leg ulcer, a substance defect in the tissue of the lower leg as a result of a peripheral arterial occlusive disease (PAOD). Caused by insufficient blood and related oxygen supply the healing of wounds is inhibited any small injuries can become chronic wounds. These small wounds are perfect for adhering at the ankle or lower leg and adhere by themselves. For longer use, they can be fixed with a special skin glue. All materials used in these products are dermatologically harmless.

### Exudation phase small

This wound shows the necrosis of tissue in extensive black areas.

Ref.no. PW004A



#### Granulation phase small

This wound shows the granulation phase after successful causal therapy and careful wound cleaning. Ref.no. PW004B



### Epithelisation phase small

This wound shows the building of epithelial tissue, finally leading to closure of the wound after successful causal therapy and careful wound cleaning. Ref.no. PW004C



### Exudation phase large

This wound shows the necrosis of tissue in extensive black areas.

Ref.no. PW005A

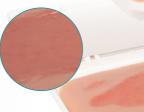
NEW



#### Granulation phase large

This wound shows the granulation phase after successful causal therapy and careful wound cleaning.

Ref.no. PW005B



#### Epithelisation phase large

This wound shows the building of epithelial tissue, finally leading to closure of the wound after successful causal therapy and careful wound cleaning. Ref.no. PW005C



# Strap-on vaccination trainer for IM and subcutaneous injection

This trainer enables intramuscular injection to be practiced, as is typically done when vaccinating. The model can be used as a vaccination trainer, but also as a normal IM injection trainer and as a subcutaneous injection trainer. The trainer can be buckled and then simulates a human upper arm. A simulated and easily palpable shoulder anatomy serves as a landmark for the puncture. The back of the trainer is puncture-proof so that there is no danger to the "patient". The injection can be done with normal needles and syringes, the injection of liquid is possible. The model can be dismantled so that the liquid can easily be removed after the exercise. Thanks to the new material, the arm feels lifelike and the puncture points are not visible, so that many hundreds of punctures are possible before the vaccination trainer has to be replaced.

#### **Product features:**

- ✓ Intramuscular injection
- ✓ Subcutaneous injection
- Injecting liquid
- ✓ Anatomical landmarks
- High quality material

Ref.no. 7130



# Three Injection Depth Simulated Tissue

When training on injections, look no further than SurgiReal's Injection Pad line. This pad is built using our RealLayer Technology to simulate proper body wall feel as well as a foam core to allow for your injected fluids to easily squeeze out. The Three Injection Depth Pad is designed to take you right into the muscle to practice the Intramuscular injection.

Ref.no. SRE0711



Train on venipuncture and vascular access skills in life-like scenarios with no harm to participants with the Human Vascular Access Sleeve. Designed to fit most people and manikins, the sleeve is secured by the hook and loop tabs above and below SurgiReal's simulated RealFlow tissue pad. Keeping safety as our top priority, all Vascular Access Sleeves are designed with puncture resistant material to make sure the needle won't make contact with your participant.

Light skin Ref.no. SRE0800L Dark skin Ref.no. SRE0800



Needle Alignment and Vascular Access, Palpating

the Vessel, and IV Placement. BUILD YOUR SKILLS

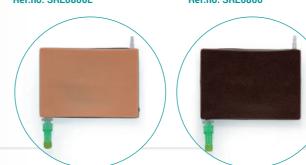
attached to stationary person, Sleeve attached to a

in your package is 1 Sleeve, 1 Attachable Simulated

Tissue Pad, 1 Package of Artificial Blood Powder, and

IN THREE STEPS: Sleeve attached to manikin, Sleeve

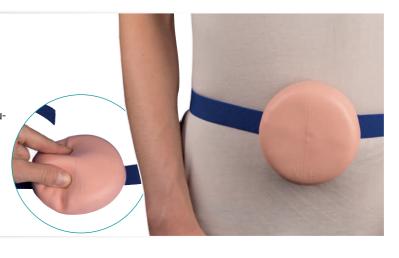
person mimicking real-life patient movement. Included

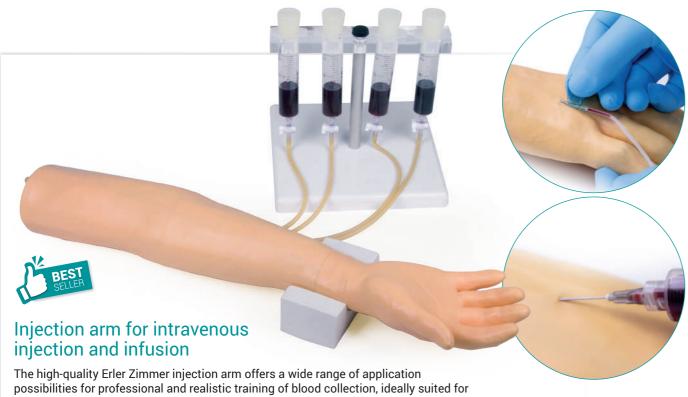


# Diabetic injection pad, advanced version

Unlike other injection pads this advanced pad gives the opportunity to practice with a normal and a hardened abdominal wall. It allows the student to form a realistic fold for injection. Due to special material it gives a lifelike impression of touch and feel, almost like in a real patient. The model is perforation proof and can be attached to the students' body using a flexible band.

Ref.no. 7070





the training and further education of medical personnel. The injection arm is very lifelike, especially in terms of the prick feeling, requires hardly any care and has skin and veins that can be changed easily and quickly. Ideally suited for Intravenous injection, Blood collection, Intravenous infusion, Palpation of veins, Placement of a venous access.

Ref.no. 7010

Replacement skin hand

Replacement skin arm Ref.no. 7011

Replacement vein Ref.no. 7012

Replacement-Injection pad Ref.no. 7015

**Blood-colored** liquid, 200 ml

#### Training arm for intravenous injection

The injection model is intended to give the prospective physician and medical auxiliary staff the opportunity of practicing intravenous injection. The model consists of soft synthetic material with an exchangeable skin in addition to an exchangeable injection site on the elbow, in which the median elbow vein (median cubital vein) is represented by a tube. The vein is visible under the skin and can additionally be easily palpated. The tension of the skin and the characteristics of the occluded vein is imitated in an approximately true to life manner. The model is characterized particularly by the possibility of compressing the vein realistically and of simulating a roll vein via the application of lubricant. Tested in rigorous daily use in the German army. All individual components are available separately.

Ref.no. 7020



Replacement skin

Replacement vein Ref.no. 7022

Blood colored liquid, 200 ml

# Strap-on IV Puncture trainer Bring more realism to your standardized patient program. With this strap-on IV puncture pad it is possible to interact directly with the actor while practicing iv puncture on arm or leg without the danger of any injury. The replaceable pad with two replacable veins can be connected to a pressurized infusion bag with a tube that can be hidden under the clothes. Included in the set is the jig, one pad with veins, the connection tubing as well as a pressure infusion bag. One bottle of our simualation blood (can be washed out of clothes) is also included. Ref.no. 7120





#### PAT Professional Adipositas Trainer

With this new kind of suit students understand the perniciousness and painfulness of daily life with overweight and adipositas playful and easy. Our professional "Fatsuit" represents this condition impressive and effective. This new acquired prospect supports the appreciation for the situation as well as points out the special needs of overweighed people. The field of application for the Professional adipositas trainer PAT is almost unlimited. It supports you in your work with overweighed people, can be used for prevention programs and graphically displays the effects of being overweighed on the students own body.









#### PAT offers you:

- ✓ Gaining body weight within seconds. Adjustable in steps of 230 g, gradable up to max. 30 kg additional weight (which is an extreme experience since there is no slow increase)
- Gaining body volume, especially at preferred localizations like breast, belly, buttocks, thighs and upper arms

#### The standard supply of PAT Professional **Adipositas Trainer consists of:**

- ✓ Weighted vest with variable weight. Standard comes with a total weight of 9 kg, can be extended to maximum 18 kg
- ✓ Weighted trousers with variable weight. Standard comes with a total weight 4,5 kg, can be extended to maximum 9 kg.
- ✓ Rugged trolley bag for transport and storage (volume suit is stored outside)
- Weight of vest will fit trousers and opposite.
- ✓ Volume suit (Unisex), washable, including outer wear.
- ✓ Instructions for use



Ref.no. 8001M







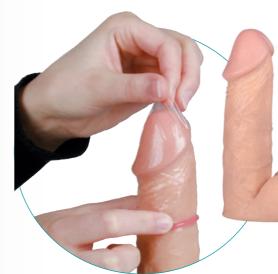


#### Breast cancer palpation model

Life size model of a female breast made of tissue-like material. The model includes a palpable lump as well as a mastopathy. The supplied educational card shows the position of the lumps as well as the statistical distribution of possible lumps in the breast. Additionally the card includes an overview of breast cancer classification. Size: 9 x 10 x 4 cm, Weight: 0.3 kg.

Ref.no. L281





### Condom Training model

This life size model of an erected penis can be fixed on the table using a sucker foot and is perfect for training the correct use of a condom. Can be used with normal condoms, no special condom required. Condoms not included. Penis length: 13.5 cm.

Ref.no. L45

#### Vulva – Casts showing antomical differences

All vulva casts are actual casts of real women. A life-like appearance is the result. The outer female anatomy is represented with its finest details and structures. Detailed and surprisingly authentic these casts show smallest wrinkles, and in some casts even the orifice of urethra and vagina. Carefully colored the differences of inner and outer labia as well as surrounding skin are clearly visible. Because each woman is different, this product represents a unique collection of 19 vulva casts.

#### Perfect for sex education

Whoever is interested in female anatomy often finds in books schematic drawings that differ a lot from the real anatomy. This often causes confusion, uncertainty and even causes shame in young women and girls who do not have the "standard" anatomy

as shown in books. Each cast shows in detail that each vulva is something unique and individual. Therefore this collection is a great tool for sexual education. Also boys and men learn a lot about different shapes in female anatomy and what is considered "normal". Girls and women make a comforting experience that for example the size of labia is just a normal whim of nature.

#### **Skin friendly Silicon material**

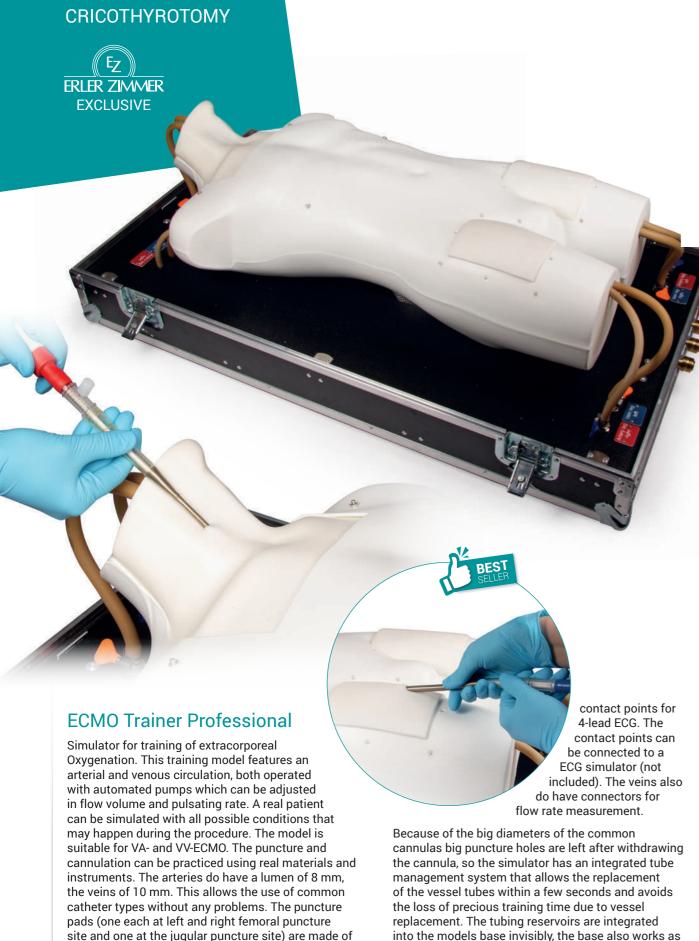
The vulva casts are made of high grade medical silicone, non-toxic, authentically soft and hygienic to clean. Because of this they are perfect for use in classrooms and information centers. Especially by comparing different shapes of anatomy this collection creates better confidence dealing with womens own sexuality.



# Training Model for Contraceptice Implants

This training model was developed for a manufacturer of a contraceptive implant to train doctors in implanting and explanting the contraceptive implants. It represents the upper arm of a woman showing muscle and skin layer. After implanting it shows the position of the implant underneath the skin.





into the models base invisibly, the base also works as lower part of the transport case with trolley rollers. The water reservoir and pump system are separated and can be connected to the trainer easily by quick lock connectors.

Ref.no. TF400



### Cricothyrotomy Task Trainer

Learn, improve, and refine Cricothyrotomy skills with SurgiReal's newest trauma task trainer designed to give you the most realistic experience with the greatest value. Accurate and realistic landmarks allow for students to properly practice and perform cricothyrotomy to prepare for emergency surgical situations. Inside your package is 1 Neck Base, 1 Simulated Skin, 1 Simulated Thyroid Cartilage insert, 3 Simulated Thyrohyoid Membranes, as well as instructions for set-up, maintenance, and use of the model. Ref.no. SRE0720

### Intradermal injection trainer

This simulator consists of a flexible skin on an arched base. The realistic condition and optical appearance of the skin creates natural training opportunities. The simulator has six locations for training of intradermal injections. If fluid is injected correctly, a typical skin welt is formed. This welt can be removed by simply aspirating the fluid back in the syringe. Each injection location can be used several times by the students. If the puncture sites are worn out, the skin can easily be replaced and the base can be used again.





#### Simulator for i.m. injection and punch biopsy of the iliac crest

Training model for training of the i.m. puncture procedure as well as for the procedure of iliac crest puncture. The model includes an artificial pelvis made of material similar to human bone which can be punctured repeatedly. Fluid aspiration is not possible. Used as i.m. model, the pelvis can be palpated to identify the correct injection position. The model is designed to be an economic disposable training aid and need to be replaced after intensive use. Life size.

Ref.no. 7090

118

ultrasound capable material. This allows ultrasound

control of the needle until it reaches the vessel tube.

The Trainer can be used with a real ECMO machine

and provides realistic fluid volume for realistic

operation of the machine. The trainer also has

#### **WOUND MOULAGE**



of time consuming Make-up the moulages will be immediately ready for use. Use your valuable time for training, not for Make-Up.

All wounds are delivered in transport boxes. Manufactured in Germany.

Wound moulage bullet

wound arm, big with bleeding function



The wounds adhere independently ✓ on skin ✓ on dolls, but can be used for improved liability (e.g. in scenarios with a lot of movement) with skin-glue.



Ref.no. NW104























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The large wounds have a bleeding function. An incorporated, invisible tube allows the wound to bleed realisticly. The tube is connected to an infusion bag which could be filled with artificial blood. Thus the mime himself, or a third person bleed the wound.



















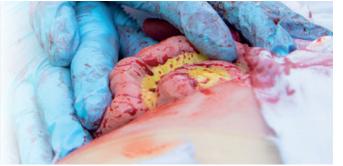


















# Bloody M.A.R.C Blood pumping system with Reservoir - Backpack

The Bloody Mobile Automated Remotely Circuit blood supply module fits perfectly to our wound moulages with bleeding function. The reservoir backpack holds up to 3 liters of artificial blood which can be pumped into up to 4 wounds simultaneously. Because of the backpack design the blood supply is not obvious to see and integrates perfectly into your training scenario. The reservoir bag has an extra big opening to allow easy emptying and cleaning.

Manual Version Ref.no. NW900 With electronic pump and remote control Ref.no. NW950









#### Emergency lower leg

Lifelike Model of a human leg with deep tissue injury, caused by an explosive (blind grenade). The vessel system can be connected with a Luer-lock connector. The whole model is made of strong silicone material and can be used for tamponade treatment of the wounds.

#### **Emergency leg**

Complete, life size leg from hip to toe, with explosion injury (blend grenade) on the lower leg and a shot right through the upper leg. Both wounds do have a pumping mechanism and can be used for tamponade treatment. On the upper leg additionally training of tourniquet use is possible. Both wounds can bleed independently so the situation can be adjusted to your training needs.

Ref.no. R50020







Skin suture trainer

This suture trainer allows practicing surgical sutures again and again. The suturing resistance of the artificial skin is almost like the real skin. Different skin suture techniques can be practiced (single interrupted suture, vertical mattress suture and intracutaneous suture). The material is very robust and guarantees a long term use. Due to this the costs per students are very low at highest possible training quality. Including jig with suction cups. This trainer was developed in co-operation with Prof. Dr. Sarah Koenig, associate professor, surgical skills lab, dept. for general and visceral surgery, University Medicine Goettingen.

> Replacement skin pad Ref.no. 7060A

Replacement pad holder Ref.no. 7060B

### Replacement Skin Pad, transparent

The thread is visible through the superficial skin layer and allows to see the position of the whole suture for education purposes.

Ref.no. 7060T



#### **Dermal Lesion Simulated Tissue**

The Dermal Lesion Pad is a great companion to any dermatological training program. The simulated moles and skin tags sit atop the Epidermis which layers upon the Subcutaneous fatty layer and the Fascia layer below that. Consisting of our 3-Layer Technology, this pad also boasts the opportunity to practice various biopsy methods including: Punch, Shave, Excisional, and Snip Biopsy as well as Mole Removal and Skin Reconstruction.



Light Skin Ref.no. SRE0150D

#### Dermal Biopsy kit with Dermal **Lesion Sim Tissue**

The Suture Training Kit combines the Dermal Lesion Suture Pad with a set of suturing instruments and three packages of non-sterile 3-0 practice suture. Instruments included in the kit:, 1 Disposable No. 10 Scalpel, 1 Adson Tissue Forceps (1 x 2), 1 Stich Scissor, 1 Mayo Hegar Needle Holder 6".



#### I&D Simulated Cyst /Abscess Tissue

The realism SurgiReal commits itself to does not disappoint in the I&D Simulated Cyst/Abscess Pad. Embedded within our 5-Layer Technology sits a simulated cyst next to a simulated abscess to give students the ability to practice abscess drainage/ closure, cyst removal/ closure, and suturing.



Light Skin

Dark Skin

### I&D Simulated Cyst/Abscess Pad Suture Training Kit

SurgiReal's I&D Simulated Cyst/Abscess Suture Training Kit combines the I&D Simulated Cyst/Abscess Suture Pad with a set of suturing and six packages of non-sterile practice suture. Instruments included in the kits: 1 Disposable No. 10 Scalpel. 1 Adson Tissue Forceps (1x2). 1 Stich Scissor. 1 Mayo Hegar Needle Holder 6. 3 Nylon Suture Packages 3-0. 3 Nylon Suture Packages 4-0.



# Small Intestive Simulator Two 40 cm segments

Specially designed to replicate a segment of intestine, this model is a great option for students hoping to practice end-to-end, side-to-side, end-to-side, and functional end-to-end anastomotic techniques. Both stapling and suturing techniques are supported by this simulator and the security of your closure can be tested by filling the intestine with water to spot leakage.









#### Hollow Organ/Stomach Model

SurgiReal's Hollow Organ-Stomach model provides a unique experience in suturing hollow organs. Because hollow organs require a different suturing technique than skin closures do, this model offers an opportunity to experience a variety of suturing situations. Though simulated to look like a stomach, this model is meant to train general hollow organ suturing.



Ref.no. SRE0510





Realistic Urinary Bladder – Catheterization – Training models

Named after historical figures Henri Dunant and Florence Nightingale, our professional training models realistically simulate and educate on proper transurethral bladder catheterization in both the male and female human. Their namesake represents our appreciation for important milestones in medical innovation and our commitment to setting new standards for patient care education. The pelvic housing is modular, allowing for the use of both male and female genital inserts while strictly maintaining the unique anatomical position of each. The innovative bladder is designed to accommodate these different anatomies and guarantee an uninterrupted urethral path from meatus to bladder neck.

Both anatomical inserts are made with high quality materials that closely simulate real human tissues in both appearance and feel while also remaining strong and durable. The shape of the bladder is specially designed to avoid the unrealistic resistance present in existing catheterization trainers. This helps prevent students from trying to "palpate" the back of the bladder as a way to correctly gauge insertion depth. The bladder also utilizes a new innovative type of valve, preventing unnatural resistance when the catheter enters the bladder. The bladder is also transparent, enabling the student the option to see the catheter's

position and depth. This provides excellent training on foley catheters as the user can actually watch the balloon inflate and be seated. The bladder connects easily to a provided fluid bag which provides natural "urine" flow following successful catheterization.

The male genitalia insert includes a replaceable foreskin, with extremely realistic mobility, to allow training of retraction, handling and other hygiene procedures. The model has the most realistic urethra of all currently available catheterization trai-

ners in the market. All four zones of the urethra are represented with corresponding anatomical shape and resistance during catheterization. Also included is a strap which, when attached will simulate narrowing of the prostate due to BPH or prostate cancer. This module is an excellent to teach and show students exactly why the use of larger or more rigid catheter is critical in this situation.

The female genitalia insert is designed to require spreading the flexible labia in order to locate the urethral meatus. The female urethral opening is not immediately obvious and is located very close to the open vaginal canal highlighting the potential for unsuccessful catheterization. The urethra provides a realistic amount of resistance and feels life-like during catheter insertion.







## COVID test trainer, nasal swab trainer basic

Model for demonstrating and practicing specimen collection in the nasopharynx, e.g. for a Covid 19 rapid test. Due to the convoluted structure of the nasal cavity, an understanding of the structures and some practices are required to obtain a meaningful swab that does not unnecessarily stress the test person.

Ref.no. NST01

#### Features:

- Training model for specimen collection from the nasopharynx
- · Realistic anatomical structures
- · Soft, yielding material
- · delivery in transport box
- · developed and manufactured in Germany

#### Advantages:

- Seeing means understanding
- Practice of the correct insertion position
- Guarantee of a meaningful test by using the right technique in the right place
- Reduction of stress for the subject (patient)
- · Safety for the examiner



# COVID test trainer, nasal swab trainer advanced

Model for demonstrating and practicing specimen collection in the nasopharynx, e.g. for a Covid 19 rapid test. Due to the convoluted structure of the nasal cavity, an understanding of the structures and some practices are required to obtain a meaningful swab that does not unnecessarily stress the test person.

Ref.no. NST02





- Training model for specimen collection from the nasopharynx
- · Realistic anatomical structures
- Soft, yielding material
- can be used both open and closed
- Success control possible by color smear from stamp pad at the site to be tested
- · delivery in transport box
- · developed and manufactured in Germany

#### Advantages:

- · Seeing means understanding
- Practice of the correct insertion position
- Guarantee of a meaningful test by using the right technique in the right place
- Reduction of stress for the subject (patient)
- · Safety for the examiner
- · Success control with color smear possible