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**NYSORA**  
CONTINUING MEDICAL EDUCATION

## THE MOST ADVANCED ultrasound trainers

*Introducing MINISIM<sup>®</sup> – Ultrasound Tissue Simulators; the most time efficient ultrasound trainers on the market. Developed by key opinion leaders and top workshop instructors, MINISIM<sup>®</sup> are the most anatomically accurate, tissue-like trainers to date that can be used for skills acquisition and knowledge and skills testing and certification.*

# MINISIM

**VALKYRIE**  
永達儀器

## UPPER EXTREMITY NERVE BLOCK MODELS

### MiniSim Open Breast Infraclavicular Visual Training Model



- Facilitates understanding of the anatomy of the breast and tissue layers of importance in breast surgery and local anesthetic infiltration techniques

#### INTERNAL LANDMARKS

Pectoralis major and minor muscles; Serratus muscles; Axillary artery  
Axillary vein; Cords of the brachial plexus; Clavicle; Coracoid process;  
Ribs 1-4

#### EXTERNAL LANDMARKS

Breast anatomy; Sternocleidomastoid muscle

### MiniSim Combined Infraclavicular/PEC Nerve Block Training Model



- Facilitates skills acquisition to perform Infraclavicular brachial plexus and PEC blocks

#### INTERNAL LANDMARKS

Pectoralis major and minor muscles; Serratus muscles; Axillary artery  
and vein; Chords of the brachial plexus; Clavicle; Coracoid process;  
Ribs 1-4; Pleura and Chest Cavity

#### EXTERNAL LANDMARKS

Clavicle; Deltopectoral groove; Pectoralis muscle; Chest wall;  
Coracoid process; Shoulder; Deltoid muscle

**Optional configurations:** MS2CN-INF Infraclavicular with Nerve Proximity Indicator

### MiniSim Interscalene Brachial Plexus Block Training Model



#### INTERNAL LANDMARKS

Anterior scalene muscle; Middle scalene muscle; Sternocleidomastoid  
muscle; Carotid artery; Internal jugular vein; Subclavian artery;  
Subclavian vein; Clavicle; Stellate ganglion; C2-C7; First rib; Clavicle;  
Brachial plexus; Superficial cervical plexus; Stellate ganglion thyroid

#### EXTERNAL LANDMARKS

Sternocleidomastoid muscle; Clavicle; Lateral neck; Chest wall;  
Thyroid notch

**Optional configuration:** MS2-CNINT Interscalene with Nerve Proximity Indicator

## MiniSim Axillary Brachial Plexus



- Facilitates knowledge and skills acquisition to perform Axillary Block

### INTERNAL LANDMARKS

Radial nerve; Ulnar nerve; Median nerve; Musculocutaneous nerves; Axillary artery; Axillary Vein; Deltoid muscle; Biceps muscle; Coracobrachialis muscle

### EXTERNAL LANDMARKS

Axillary fossa; Pectoralis muscle; Trapezius muscle; latissimus dorsi muscle; Biceps Brachialis muscle; Deltoid Muscle

**Optional configuration:** MS2CN-ABP Axillary Brachial Plexus with Nerve Proximity indicator

## MiniSim Wrist Block Training Model



- Facilitates knowledge and skills acquisition to recognize ulnar and radial arteries and perform ulnar and median nerve blocks.

### INTERNAL LANDMARKS

Radius, ulnar carpal bones; Radial and ulnar arteries; Median and ulnar nerves; Palmaris longus; Radial Artery; Ulnar artery; Deep and superficial muscles of the forearm

### EXTERNAL LANDMARKS

Ulnar head; Radius; Ulna; Palmar crease; Tendons of wrist flexors; Thenar ligament; Veins; Hypothenar ligament

**Optional configuration:** MS2CN-MED Wrist with Nerve Proximity indicator

## MiniSim Suprascapular Nerve Block Training Model



- Facilitates knowledge and skills acquisition to perform Suprascapular nerve block for analgesia of the shoulder without phrenic nerve paralysis

### INTERNAL LANDMARKS

Clavicle; Scapula; Humerus; Suprascapular nerves; Infraspinatus muscle; Supraspinatus muscle; Suprascapular artery; Trapezius muscle; Circumflex artery

### EXTERNAL LANDMARKS

Scapula; Clavicle

**Optional configuration:** MS2CN-SSC Suprascapular with Nerve Proximity indicator

## LOWER EXTREMITY NERVE BLOCK MODELS

### MiniSim Femoral and Fascia Iliaca Nerve Block Training Model



- Facilitates knowledge and skills acquisition to perform femoral nerve block and fascia iliaca block

#### INTERNAL LANDMARKS

Femoral, obturator, lateral cutaneous nerves; Saphenous nerves; Facial ilica; Facia lata; Iliopsoas muscle; Pectineus muscle; Sartorius muscle; Adductor muscles; Femoral artery; Femoral vein

#### EXTERNAL LANDMARKS

Inguinal crease; Anterior superior iliac spine; Proximal thigh; Hips Pubic tubercle; Inguinal Ligament; Femoral Crease

**Optional configurations:** MS2CN-FEM MiniSim Femoral with Nerve Proximity Indicator

### MiniSim Popliteal and IPAC Nerve Block Training Model



- Facilitates knowledge and skills acquisition to perform popliteal sciatic and IPAC blocks

#### INTERNAL LANDMARKS

Popliteal artery and vein; Common peroneal nerve; Tibial nerve; Semitendinosus muscle; Semimembranosus muscle; Biceps femoris muscle; Distal part of femur

#### EXTERNAL LANDMARKS

Popliteal fossa; Tendon of Biceps Femoris Muscle; Tendon of Semimembranosus Muscle; Popliteal Fossa; Ppopliteal Crease; Popliteal triangle

**Optional configurations:** MS2CN-POP MiniSim Popliteal with Nerve Proximity Indicator

### MiniSim Adductor/Saphenous Combined Nerve Block Training Model



- Facilitates knowledge and skills acquisition to perform femoral triangle and adductor canal block for analgesia of the knee

#### INTERNAL LANDMARKS

Sartorius muscle; Vastus medialis muscle; Adductors femur; Femoral artery; Femoral vein; Saphenous nerve; Relevant fascial sheaths

#### EXTERNAL LANDMARKS

Mid and distal thigh; Knee; Quadriceps Femoris muscle; Sartorius Muscle

**Optional configurations:** MS2CN-ADD Adductor/Saphenous with Nerve Proximity Interface

## MiniSim Sciatic Transgluteal Training Model



### INTERNAL LANDMARKS

Great trochanter; Ischial tuberosity; Sciatic nerve; Gluteus maximus

### EXTERNAL LANDMARKS

Gluteus maximus; Gluteal crease; Femur Trochanter

**Optional configurations:** MS2CN-STG Sciatica Transgluteal

## MiniSim Ankle Block Training Model



### INTERNAL LANDMARKS

Tibial nerve; Peroneal nerves (superficial and deep); Sural nerve; Saphenous nerve; Posterior and anterior tibial artery and vein; Tibia Fibula; Medial malleolus

### EXTERNAL LANDMARKS

Tibia; Lateral malleolus; Medial malleolus; Side of the foot; Dorsus of the foot

**Optional configurations:** MS2CN-ANK Ankle with Nerve Proximity Indicator

## VASCULAR ACCESS

### MiniSim Vascular Access IJ Training Model



### INTERNAL LANDMARKS

Sternocleidomastoid muscles; Carotid artery; Internal jugular vein; Subclavian artery; Clavicle; First rib; Thyroid Gland; Pleura

### EXTERNAL LANDMARKS

Sternocleidomastoid muscles; Clavicle; Cricoid cartilage; Supraclavicular fossa; Neck; Mandible

## TORSO

### MiniSim Paravertebral (PVT) and Erectores Spinae Blocks Training Model



- Facilitates acquisition of essential skills of using ultrasound
- Allows needle-target practice in plane and out of plane.
- Absolute must for anyone wanting to start utilizing point of care ultrasound

#### INTERNAL LANDMARKS

T3-T8; Ribs 3-8; Paravertebral space; Pleura; Spinous processes; Vertebrae T3 to T8

#### EXTERNAL LANDMARKS

Left and right inferior angle of scapula; Vertebra prominens; Spinous processes; Paravertebral muscles

### MiniSim Transverse Abdominis Plane Training Model



- Facilitates acquisition of essential skills of using ultrasound
- Allows needle-target practice in plane and out of plane
- Absolute must for anyone wanting to start utilizing point of care ultrasound

#### INTERNAL LANDMARKS

Rectus abdominis; Transverse abdominis; Internal oblique; External oblique; Pectineus; Essential Fascial Sheaths

#### EXTERNAL LANDMARKS

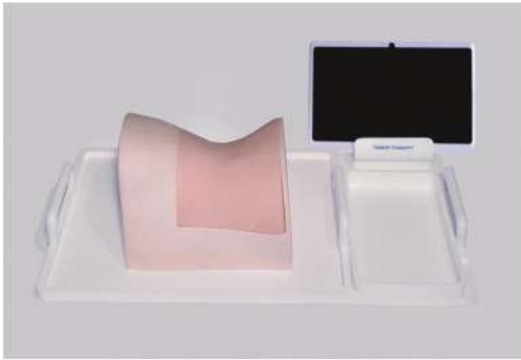
Umbilicus; Rectus abdominis; Abdominal wall

*The point of care ultrasound is rapidly becoming the standard of care worldwide. However, the training on the safe and efficacious use of ultrasound is inadequate. The training is ideally done with simulation, rather than in actual patients. MedXpress.Pro introduces MINISIM<sup>®</sup>, its proprietary line of hi-fidelity ultrasound trainers.*

\*Optional configurations: provides the same features as main product + built in electronic sensors to interface with the needle for an audible and visual indication when the user has advanced the needle within the distance of the targeted nerve to provide a successful nerve block.

## TORSO (cont.)

### MiniSim TAP and Quadratus Lumborum



- Facilitates learning essential anatomy for TAP and QL blocks
- Facilitates training on injection techniques for TAP and QL

#### INTERNAL LANDMARKS

Transverse abdominis muscles; Internal and external oblique muscles; Quadratus lumborum muscles; Latissimus dorsi muscles

#### EXTERNAL LANDMARKS

Umbilicus; Rectus abdominus

### MiniSim Epidural Training Model



- Facilitates learning of anatomy recognition, identification of interspaces and placement of the needle in the epidural space using ultrasound
- Options include a camera for visual confirmation of the needle placement

#### INTERNAL LANDMARKS

L1-L5; Sacrum; Epidural space; Spinal processes; Laminae; Articulate joints; Intervertebral space; Dura and Ligamentum Flavum

#### EXTERNAL LANDMARKS

Iliac crest

## ESSENTIAL

### MiniSim Essential Trainer



- Facilitates acquisition of essential skills of using ultrasound
- Allows needle-target practice in plane and out of plane
- Absolute must for anyone wanting to start utilizing point of care ultrasound

#### INTERNAL LANDMARKS

Artery; Vein; Nerve

#### EXTERNAL LANDMARKS

Not applicable

**Optional configurations:** MS2CN-TRN Essential Trainer with Nerve Proximity Indicator

## VALKYRIE TRAINING SOLUTIONS

Valkyrie has a proven track record in the creation and provision of simulator based training solutions.

Our holistic and inclusive approach to system design ensure that your training is not only realistic but is optimized to meet your specific performance outcomes.

Valkyrie offers a comprehensive range of unique simulation systems for developing essential ultrasound skills. Our solutions are second to none and are renowned for their accuracy and durability.

### DESIGN

Each MiniSim has been designed to optimize the development of specific knowledge and skills using landmark and ultrasound guided procedural techniques. All models contain internal and external landmarks necessary to practice ultrasound visualization and placement of needle and catheter necessary to accomplish peripheral nerve blocks or vascular access.

### FOOTPRINT

The system footprint is small to facilitate the utilization of multiple units simultaneously, making it ideal for workshops and simulation labs. Small footprint and standardized packing size allows for easy storage and transport.

### EXPERT INPUT

Each MiniSim has been reviewed by leaders in the field of point of care ultrasound to ensure that all the relevant external and internal landmarks for each block are included and accurate.



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