This Epidural Anesthesia Simulator has been developed for the training of medical professionals only. Any other use, or any use not in accordance with the enclosed instructions, is strongly discouraged. The manufacturer cannot be held responsible for any accident or damage resulting from such use. Please use this model carefully and refrain from subjecting to any unnecessary stress or wear. Should you have any questions on this simulator, please feel free to contact our distributor in your area or KYOTO KAGAKU at any time. (Our contact address is on the back cover of this manual)

**Features**
- Anatomically correct spinal column covering from T7 to L5.
- Land marks for palpation: IC, angulus inferior scapulae and spinous process.
- True-to-life resistance and “pop” felt through the needles.
- Both paramedian and median approaches are possible.
- Both left and right lateral position are possible.
- The model can also be used in spinal tap training at the lumber area.

**Caution**
Don’t mark on the model and other components with pen or leave printed materials contacted on their surface. Ink marks on the models will be irremovable.

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Before You Start

Set Includes

Before your first use, ensure that you have all components listed below.

- **a** Life Size Unisex Torso · · · · · · · · 1 piece
- **b** Puncture Block · · · · · · · · · · · · 5 pieces
- **c** Drain Pouch · · · · · · · · · · · · · · 5 pieces
- **d** Supporting Stand · · · · · · · · · · · · 1 piece
- **e** Syringe (50ml) · · · · · · · · · · · · · · · 1 piece

DO's and DON'Ts

**DOs**
Handle the manikin and the components with care. Talcum powder may be used on the manikin after use to preserve suppleness of the skin and prevent it from being stained.
Storage in a dark, cool space will help prevent the skin colours from fading.
The manikin skin may be cleaned with a wet cloth, if necessary, using mildly soapy water or diluted detergent.

**DON'Ts**
Do not let ink from pens, newspapers, this manual or other sources come in contact with the manikin, as they cannot be cleaned off the manikin skin.
Never use ethanol or organic solvent like paint thinner to clean the skin, as this will damage the simulator.
1) Fill the syringe with water.
2) Hold the block upright with the open end of the tube upwards.
3) Push in the piston of the syringe and fill the block with water (approx. 25cc).
4) When the water surface reaches above the clamp, close the clamp firmly.
5) Unscrew the syringe.

1) Ensure that the drain pouch is empty.
2) Hold the side tube of the puncture block and connect it to the connector of the drain pouch.

1) Fill the syringe with water.
2) Connect the tip of the syringe to the connector at the end of the block by screwing it clockwise.

1) Open the clamp on the tube.
2) Hold the block upright with the open end of the tube upwards.
3) Push in the piston of the syringe and fill the block with water (approx. 25cc).
4) When the water surface reaches above the clamp, close the clamp firmly.
5) Unscrew the syringe.
4 Set the block in the model

Put the block into the pit on the model so that the tube with clamp comes to the headside of the torso.

5 Set the body position

Set the supporting stand on the head side of the torso to keep it at (right or left) lateral position.

6 Ready
Epidural Anesthesia

Anatomically correct spinal column covering from T7 to L5. Land marks for palpation: IC, angulus inferior scapulae and spinous prosess. True-to-life resistance and “pop” felt through the needles. Loss of resistance technique is possible. The width of puncture block allows paramedian access as well as median approach. Make sure that the needle is not in the subarachnoid space (no water flows out), and then inject water (simulated saline) or air into the epidural space. Successful performance can be confirmed by observing the injected air/water flows into the drain pouch.

Caution

When the puncture block gets worn, “Loss of resistance” confirmation might not work properly. This is because water/air may be injected into needle trace even if the needle tip is not in the epidural space. When this occurs, change the puncture site or replace the block with a new one.

Lumbar Puncture (CSF collection)

The model can also be used in spinal tap training at the lumbar area.

With its standard setting CSF does not flow out even when the procedure is successful, since the CSF is not pressurized.

To confirm the placement of the needle tip, open the clamp on the tube, connect the small syringe to the spinal needle and aspirate the liquid.

Please Note:

To obtain realistic CSF return:
1. Prepare a water bag or an irrigation bottle with connection tube (can be ordered separately), and connect it to the head end of the central tube of the puncture block.
2. Fill the water bag with water and connect the 50mm syringe to the connector at the bottom end of the block. Open the clamp and then fill the tubing with water by pulling the piston of the syringe. Take care not to leave air bubbles in the tubing.
3. Hang the water back so that the water surface comes approx. 30cm above the table top.
After Training

1 Empty the Puncture block

1) Take out the block from and connect the empty 50ml syringe to the connector.
2) Open the clamp, holding the block upright with the open end of the tube upwards.
3) Aspire the water by the syringe.

[Diagram showing clamp and puncture block]

The syringe will be locked by turning clockwise.

2 Remove the drain pouch

Hold the side tube of the puncture block. Disconnect the drain pouch and empty it.

[Diagram showing drain pouch and puncture block]

If you continue the session, return to P3-4 and set a new block.
When you finish the session for the day, empty the drain pouch and dry all used components naturally and store them in room temperature, avoiding direct sunlight or exposure to elements.
Trouble shooting

Quick check-up before calling the customer service. Use the table if you have problems using the simulator. Look in this section for a description of the problem to find a possible solution.

FAQs

Q. Water/air can be injected into the block even if the needle tip has not reached the epidural space.

A. The puncture block is worn. When this occurs, change the puncture site or replace the pad by a new one.

Q. Water does not come out even if the needle tip is surely in the subarachnoid space.

A1. With its standard setting, MW3 does not simulated the CSF Pressure.
   For confirmation 1) aspire with a syringe,
   or
   2) Connect the center tube to a waterbag filled with water, and hanged so that the water surface comes to 30cm above the table-top.

A2. Also check if : the tubing is filled with water, and the needle is not clogged.

Q. Skin comes off the block.

A. Remove the dust from the backside of the skin and surface of the block, and put the skin on the block again.
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- For inquiries and service, please contact your distributor or KYOTO KAGAKU CO., LTD.