# **Thoracic Trauma Trainer**

with storage bag

# **Outline**

High-energy trauma often consists of multiple injuries, and thoracic trauma can be considered key when determining priority in treatment. This thoracic trauma trainer is a model that combines practice in surgically securing the airway with practice in the treatment of obstructive shock.







# a.Puncture and Incision of the Cricothyroid Ligament

- The puncture/incision site includes the airway, cricoid cartilage, and thyroid cartilage.
- Attach your own surgical tape (paper) to simulate the cricothyroid ligament.
  - The cricoid cartilage and thyroid cartilage are structured so that they can be opened as a procedure for widening the incision.
  - The skin is made with silicone, giving it an appearance and texture similar to the real thing, making training more realistic.



a. Puncture and Incision of the Cricothyroid Ligament

#### Specifications

Thoracic trauma trainer (main body)	Approx.73(L) × 40 (W) ×20(H)cm	Approx.8 kg
Sponge stand	Approx.45(L) × 30 (W) ×9(H)cm	Approx.560g
*Sponge stand angle: Approx.10°		

## Components

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Thoracic trauma trainer main body	1	
Sponge stand	1	
Stand	1	
Simulated blood (dark type) 500 ml	1	
Simulated blood tank	1	
AA size batteries	4	
Storage bag	1	

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b. Thoracentesis (Left and Right)

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- Air can be introduced to create swelling of the left or right side of the chest (tension pneumothorax, subcutaneous emphysema).
- Distension of the jugular vein can be simulated in conjunction with the swelling of the chest.
- Sternal angle and second intercostal space are present for use as landmarks for the puncture site.
- Upon puncture, the air flows out, and the swelling of the chest and distension of the jugular vein subside.
- When there is a syringe attached to the puncture needle, air pressure will lift the plunger.
- The skin is made with silicone, giving it an appearance and texture similar to the real thing, making training more realistic.

\*Use a needle smaller than 18G.



c. Thoracic Drainage (Left and Right)

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- Two types of sites are available (one that is uncut, so that an actual incision can be made, and one that is precut for repeated use), and procedures can be carried out on both the left and right sides.
- Actual insertion of drainage tubes (trocar catheters, etc.) is possible.
- The fifth and sixth intercostal spaces are present for use as landmarks for the insertion site.
- Attach your own surgical tape (paper) to simulate the pleura.
- The skin is made with silicone, giving it an appearance and texture similar to the real thing, making training more realistic.



d. Pericardiocentesis

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- A framework (xiphisternum and costal arch) for identifying the pericardial puncture site is present.
- Simulated blood can be drawn when a puncture with the correct angle and depth has been made.
- An error alarm will sound when the angle is incorrect or the puncture is too deep.
- Distention of the jugular vein can be simulated. (Manual type)
- The skin is made with silicone, giving it an appearance and texture similar to the real thing, making training more realistic.

\*Use a needle smaller than 18G.

Spares



а	LM-093B1	Cricothyroid cartilage skin (no cut.)	10
	LM-093B2	Cricothyroid cartilage skin (with cut)	5
b	LM-093CR	Thoracentesis puncture site (right)	1
	LM-093CL	Thoracentesis puncture site (left)	1
	LM-093D	Thoracentesis puncture skin	2
c	LM-093ER	Right thoracic drainage site (with cut)	1
	LM-093EL	Left thoracic drainage site (with cut)	1
	LM-093FR	Right thoracic drainage site (no cut)	5
	LM-093FL	Left thoracic drainage site (no cut)	5
d	LM-093G	Pericardiocentesis site for thoracic trauma	1
	LM-093H	Skin set for pericardiocentesis site for thoracic trauma	1
e	LM-090E	Simulated blood (dark type) 500 ml (red-brown color similar to that of venous blood)	1