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# PC-BPE019.01

## Thoracentesis and Thoracostomy Ultrasound Training Model

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### Brown Phantom Brand

Brown Phantom brings you the most realistic and durable ultrasound training solutions in the industry. We understand that mastering ultrasound techniques requires hands-on practice; only through practice can confidence be built and skills improved. This is precisely why we offer you the best ultrasound simulation training products.

### Product Overview



The model features a realistic human thoracic torso appearance, including the skin, subcutaneous tissue, chest wall, ribs, lungs, pleural cavity, pleural effusion, diaphragm, etc. The material of the model has acoustic and density characteristics similar to human tissues, supporting ultrasonic imaging. It provides an operational platform for medical staff to perform skills training and postoperative care for pneumothorax puncture, thoracentesis and catheterization under the guidance of surface landmarks and ultrasound.

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## Features

1. The model features a realistic chest and thoracic wall appearance, including anatomical structures such as the skin, subcutaneous tissue, thoracic wall, ribs, lungs, and pleural cavity. The left thorax contains normal lung structures, while the right thorax is set up with pneumothorax and pleural effusion. A small to large amount of pleural gas and pleural effusion can be infused into the pleural cavity.
2. The model includes thoracic wall tissues, the 5th, 6th, 7th, 8th, and 9th ribs and intercostal spaces, pleural cavity, lungs, diaphragm, and spleen, among others. It supports the use of ultrasound machines for the identification and measurement assessment of pneumothorax and pleural effusion.
3. It supports right thoracic pneumothorax puncture and pleural effusion aspiration procedures under the guidance of surface landmarks and ultrasound. Nursing cooperation training for thoracentesis can be conducted at the right anterior axillary line at the 5th intercostal space, the mid-axillary line at the 6th and 7th intercostal spaces, and the scapular line at the 8th and 9th intercostal spaces. It is equipped with an effusion filling pipeline for convenient liquid replenishment.
4. After thoracic effusion closed drainage surgery, a drainage tube can be left in place for drainage tube care and to observe whether the drainage tube is unobstructed.
5. Pneumothorax puncture can be performed at the right midclavicular line at the 2nd intercostal space under the guidance of surface anatomical landmarks or ultrasound. Gas can be expelled upon successful puncture. A manual air pump is provided for inflation.

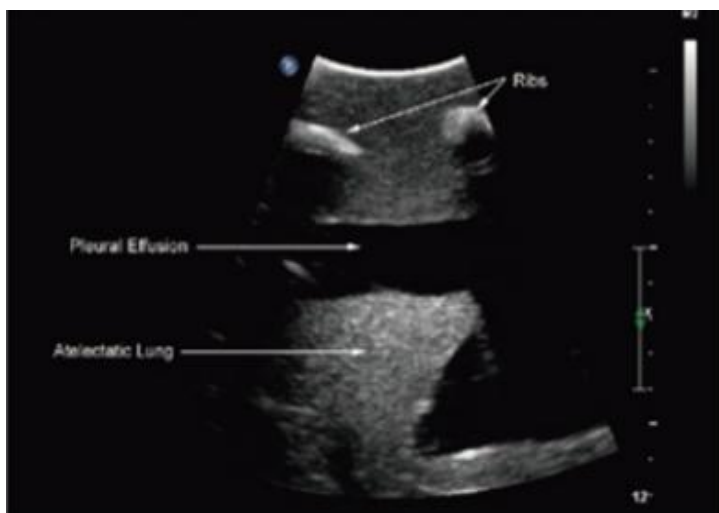
## Vascular Access Training

### Ultrasound examination

When performing examination with a real ultrasound machine, a sufficient amount of coupling agent must be used.

### Ultrasound puncture

When performing examination and puncture with a real ultrasound machine, a sufficient amount of coupling agent must be used.



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## Precautions

### 1. Use Appropriate Needles and Sheaths

To ensure the best user experience, you need to use appropriately sized needles and sheaths. We recommend using 18-21G needles and corresponding sheaths for vascular access. While the skin of the ultrasound model allows for the use of larger needles, it requires more time to self-heal or may not fully heal.

### 2. Avoid Using Needles Thicker Than 18G

Do not use needles thicker than 18G.

### 3. Careful with Thin Needles

Needles thinner than 22G can bend if inserted too forcefully, causing them to drag and damage the model material.

### 4. Avoid Abrupt Angle Changes

Abruptly changing the needle angle within the model, rather than withdrawing and reinserting, may cause irreparable damage.

### 5. Replace Dull Needles Regularly

Dull needles can drag the model material and cause irreparable damage, so each needle should be used for a maximum of 10 punctures before being replaced.

## Maintenance

After each use, clean with neutral soap water. Dab dry with a soft cloth instead of wiping to protect the opening inserted into the blood vessel; once the model is completely dry, lightly apply an appropriate amount of baby powder. The body model can be stored at room temperature in a storage cabinet or on a countertop. Do not place other items on the model to avoid deformation.

## Configuration List

No.	Item	Unit	Quantity
1	Thoracentesis and Thoracostomy Ultrasound Training Model	Piece	1
2	User Manual	Book	1
3	Instructions for use	Piece	1

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