

**Caution:**  
Don't mark on the phantom with pen or leave printed materials on its surface.  
Ink marks on the phantom will be irremovable.

## Ultrasound-Guided Tube Feeding Phantom

● Product supervision:  
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Dr. Kobayashi Tadashi



### Contents

- General Information ..... p.1
- Preparation, Training, Cleanup ..... p.2-4
- Training ..... p.5-7

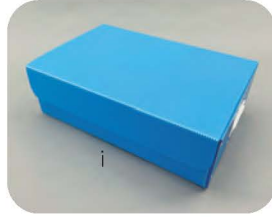
#### ● Features

- Confirm tube placement while moving the tube using ultrasound
- Practice using ultrasound by confirming various landmarks, such as the trachea, esophagus, thyroid, sternum and clavicles
- Change whether the tube reaches the esophagus or the trachea to learn the difference
- Check the position of the catheter
- Use your own ultrasound device to train any time

# General Information

## Set includes

Make sure that all components are in place before you start.



- |                         |   |                      |   |                |   |
|-------------------------|---|----------------------|---|----------------|---|
| a ultrasound neck block | 1 | c nasogastric tube   | 1 | i storage case | 1 |
| b body                  | 1 | d syringe            | 1 |                |   |
|                         |   | e talcum powder      | 1 |                |   |
|                         |   | f surplug            | 1 |                |   |
|                         |   | g instruction manual | 1 |                |   |
|                         |   | h urethan block      | 1 |                |   |

## ⚠ Caution

### ● Handle with care

This phantom is made from a special composition of resin. Please handle with care as to not damage it.

### ● Do not leave printed documents

Do not leave printed documents on the phantom. Ink stains will be irremovable.

### ● Do not write on the phantom

Any ink on the phantom will be absorbed and become irremovable.

### ● Cleaning and Care

Please clean the phantom completely every time after finishing the training. Any remaining gel may deteriorate the phantom.

**Never wipe the phantom or with thinner or organic solvent.**

### ● Color changes may occur

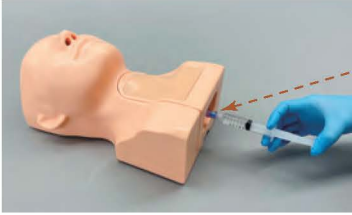
This phantom may change color over time. This does however not impact the performance.

### ● Correct storage conditions

Keep the phantom at room temperature, away from heat, moisture and direct sunlight.

### 1 Setup

- ① Place the simulator on a level surface.
- ② Insert water into the esophagus.



Insert **17ml** of water through the filling port using the included syringe.

※ Close opening with plug  
esophagus plug

※ Please use the included plug.



Place the head on the included **urethane block** and let the air escape from the esophagus.

※ Any air remaining in the model will influence the ultrasound image.

### 2 Imaging

- ① Apply ultrasound gel.



Apply **ultrasound gel** directly to the phantom.

- ② Scan the phantom.



Scan the phantom.

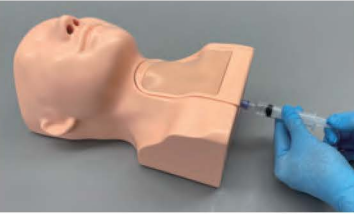
※ Please use a **linear probe** for scanning.

※ Adjust the settings of your ultrasound device to receive the best results.

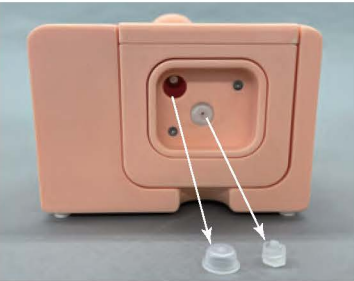
## 3 Cleanup



- ① Remove the gel  
Remove the remaining ultrasound gel using wet wipes.
  - ※ If the surface feels sticky, touch up with the included talcum powder.
  - ※ **Dried leftover ultrasound gel might lead to corrosion of the phantom material or influence the ultrasound image.**



- ② Drain the water  
Use the syringe to drain the water from the phantom.



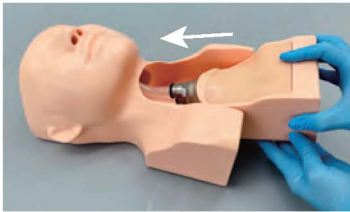
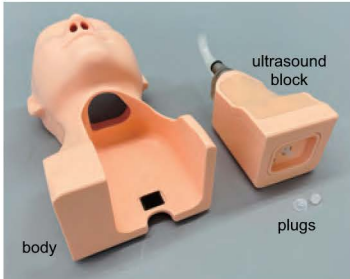
- ③ Remove the plug and drain the excess water.
  - ※ If water is left inside the phantom, it might start to mold.
  - ※ Please be careful not to lose the plugs.

TIP: Flushing with alcohol after use helps keeping the model clean



- ④ Put the phantom back into the storage case
  - ※ Please put back only after it's dry.
  - ※ Including a drying agent in the box helps countering mold.

### Setting up the cube



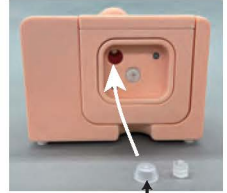
① Prepare the body, ultrasound block and plugs.

② Close the tracheal opening.

⇒ see image on the right

※ The esophagus plug is used to fill with water.

⇒ see p.2



② Insert the ultrasound block into the body.

※ Secure the body and block with the velcro tape.

③ Insert the tubes into the nose.

※ Both left and right nostril can be used

### Exchanging the esophagus/trachea tubes



④ Switch the left and right tubes.

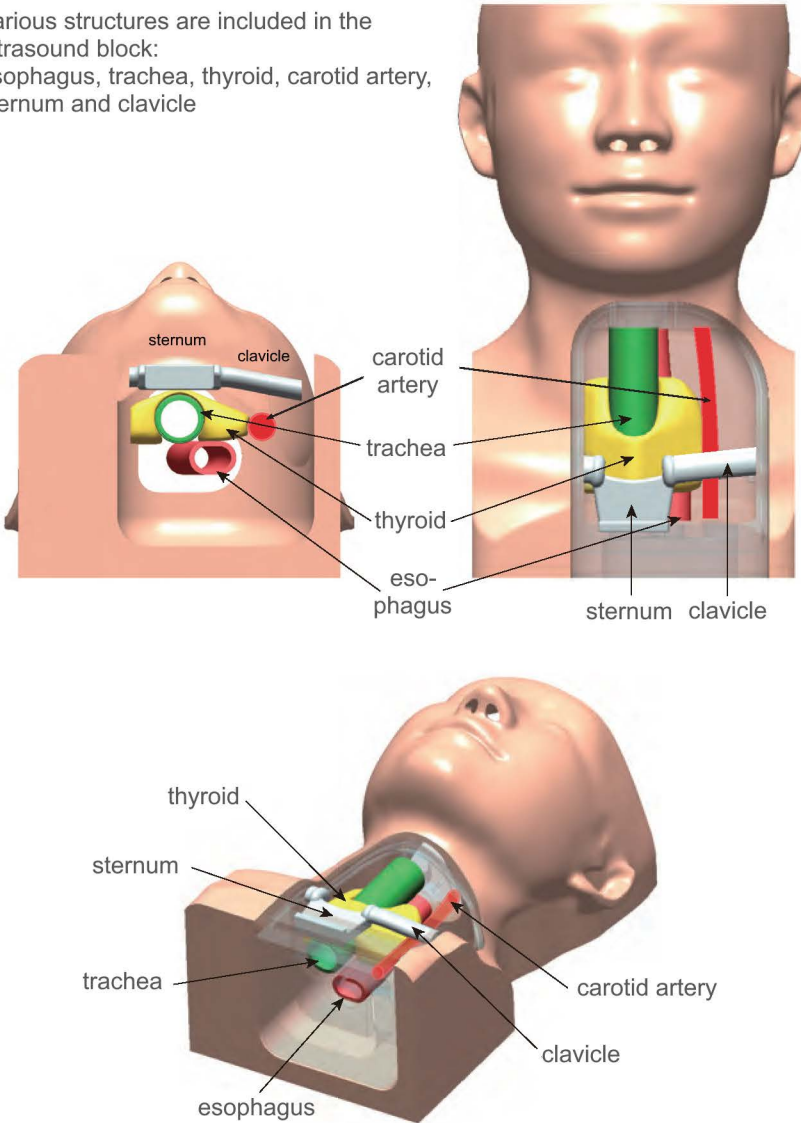
※ Either tube can be attached left or right.

※ Please insert deeply.

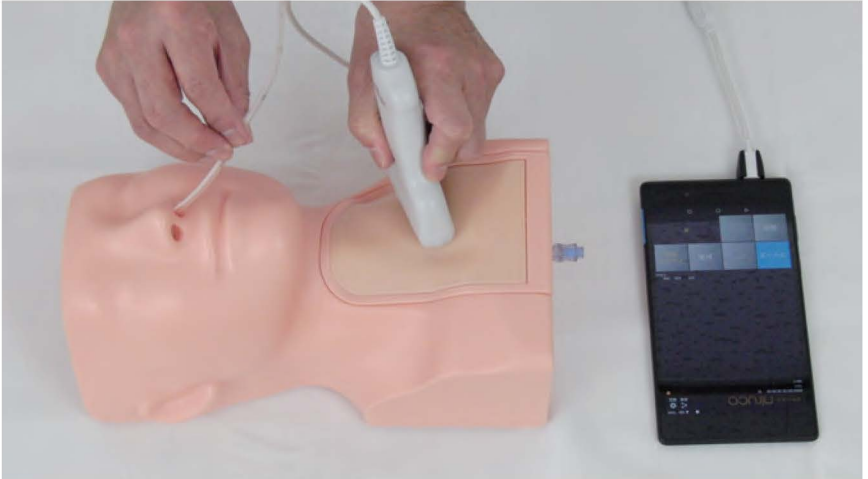
Block  
upper connector:  
trachea  
lower connector:  
esophagus

## Structure of the phantom

Various structures are included in the ultrasound block:  
esophagus, trachea, thyroid, carotid artery,  
sternum and clavicle



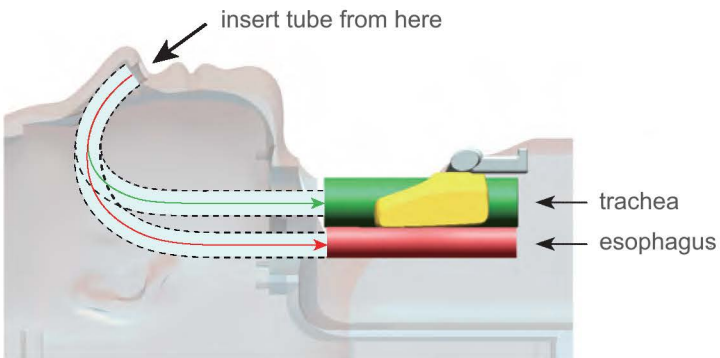
## 2 How to use



When inserting the feeding tube into the nostril, it reaches the trachea/esophagus

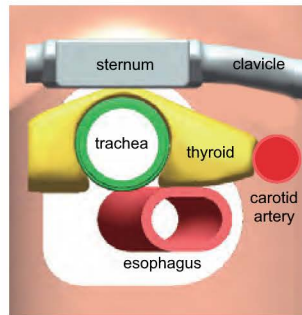
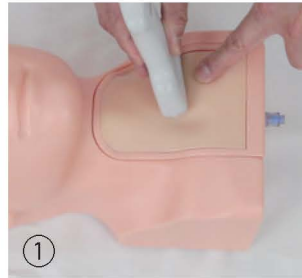
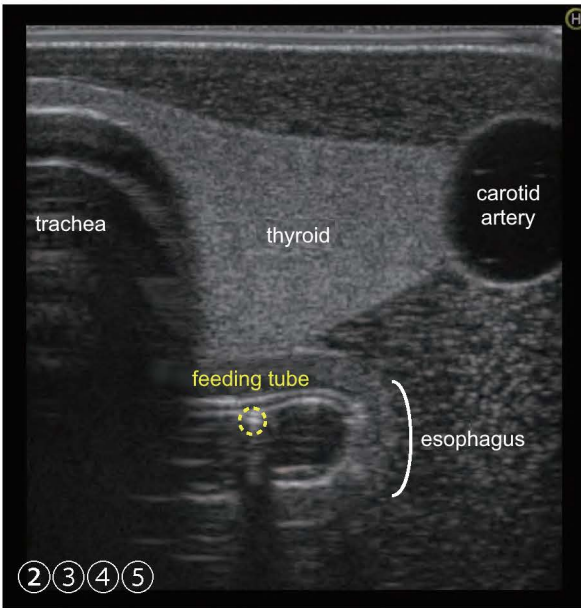
※ When you feel a resistance while inserting the tube, check if the tip has reached the inner parts.

### Cross-section of the phantom





## 3 How to use



- ① Check the location of the clavicle.
- ② Check the location of the thyroid.
- ③ Check the esophagus behind the thyroid.
- ④ Insert the feeding tube.
- ⑤ Confirm the insertion of the feeding tube to the esophagus.

※ The tube will not be visible if it has entered the trachea

※ Try moving the tube carefully if you find it hard to confirm the tube placement.



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