

Bronchoscopy Training Model

LM-092

Instruction Manual

Thank you for purchasing the Bronchoscopy Training Model.

Please read this instruction manual carefully to ensure correct use of the product,
and store it in a safe place for easy access.

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Handling and Safety Precautions

These precautions should be strictly observed in order to ensure safe, long-term use of the product.

The following precautions should be observed particularly strictly:

1. This model is made of special silicone. Improper handling may break the model.
2. Do not place any object on the bronchial unit as this may deform the unit.
3. To remove stubborn stains on the model, use gauze or the like that has been soaked with water or neutral detergent diluted with water. Do not use thinner, benzene, or any other solvent as this may cause the LM-092 to lose color or become deformed.
4. To remove stains inside of the box, wipe it using gauze soaked with water or neutral detergent diluted with water. Do not use thinner, benzene, or any other solvent.
5. Never use oil-based ink or paint as these will infiltrate the LM-092 and any contamination will not be removed successfully.
6. In storing the LM-092, choose a location where it is not exposed to direct sunlight or ultraviolet rays. (The LM-092 will be discolored if exposed to direct sunlight or ultraviolet rays for long hours.)
7. If the LM-092 is not used, store it by placing it in the box and close the cover of the box.
8. Lubricant (silicone spray) is not included in the kit. Follow the precautions below for use.

Precautions on lubricant (silicone spray)

1. Use only silicone oil-type aerosol lubricant (silicone spray). Using grease or a spray that contains oil other than silicone oil may damage the model.
2. Spray a small amount of the pre-prepared lubricant (silicone spray) on the neck skin and other parts that do not impede functioning of the model and confirm that there are no problems before proceeding with use.

*** Caution**

- During the production process, small bubbles and chips may form at the bronchial bifurcation and cannot be repaired.
- The material used for molding in the manufacturing process may remain in the bronchial unit. In this case, massage the bronchus in which the material remains with fingers and rinse the material off.

1. The contents of this instruction manual are subject to change without notice.
2. This instruction manual may not be reproduced in part or in its entirety without permission.
3. Please contact the manufacturer in the event that any errors or omissions are found in the contents of this instruction manual.
4. This product should be used only as described in this instruction manual. In particular, the product should not be used in any way that contravenes the precautions noted in the instruction manual.

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1. Outline and Features

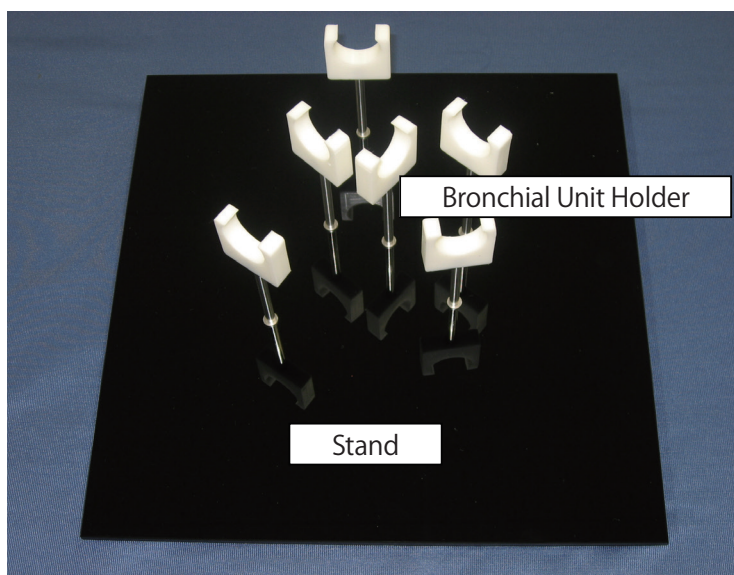
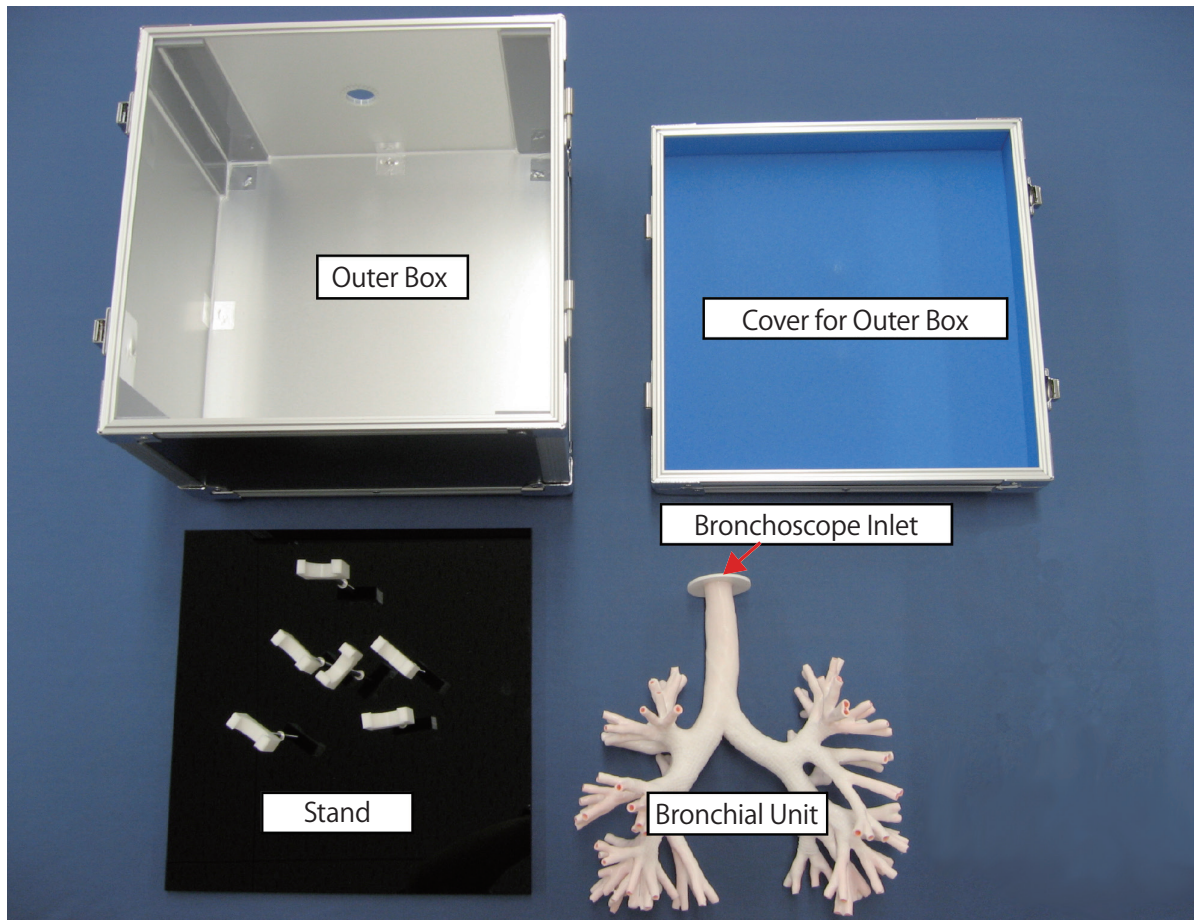
Outline

This product can be used for insert training of ultrafine bronchoscopy as well as existing bronchoscopy.

Features

- The LM-092 is designed to represent very thin bronchi, which have never been successfully modeled, by a special manufacturing method. The represented bronchi include even quintenary bronchi (e.g., B1ai α). A very thin bronchoscope can be inserted up to a quintenary bronchus.
- The material is specialized silicone rubber. The sense of bronchoscopy insertion allows a feeling like human-like texture due to elasticity. In addition, the internal bronchial unit is a human-like color.
- The bronchial unit and the stand are easily removable from the outer case.
- The end of 3D structured distal bronchus is open and washable after insertion training.

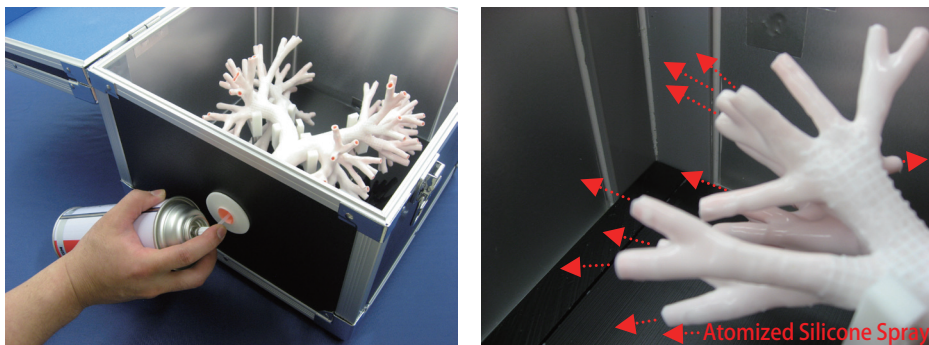
2. Components and Configuration



3. Handling the Model

* Before inserting a bronchoscope, be sure to use the silicone spray as a lubricant. Lubricant (silicone spray) is not included in the kit. Prepare lubricant in advance, referring to the precautions.

3-1. Insert the nozzle of the silicone spray into the inside of the bronchial unit and spray the silicone until atomization from the peripheral ends of the bronchial unit can be confirmed.



It is difficult to spray the silicone into the upward peripheral portions of the bronchial unit. For those portions, additionally spray silicone by inserting the nozzle into each peripheral end.

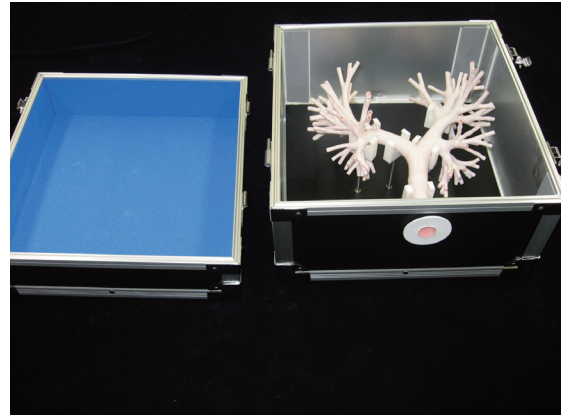
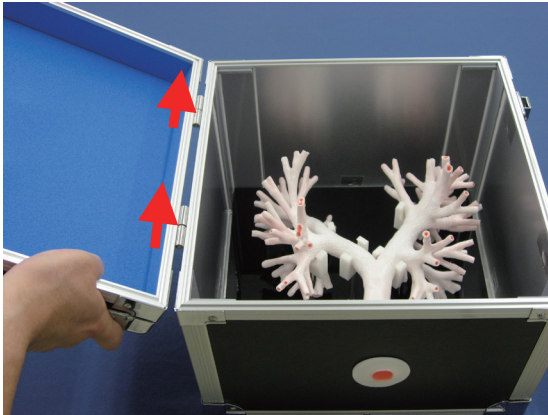


Thoroughly apply silicone spray and start bronchoscope- insertion training.

3-2. The cover for the outer box can be removed.

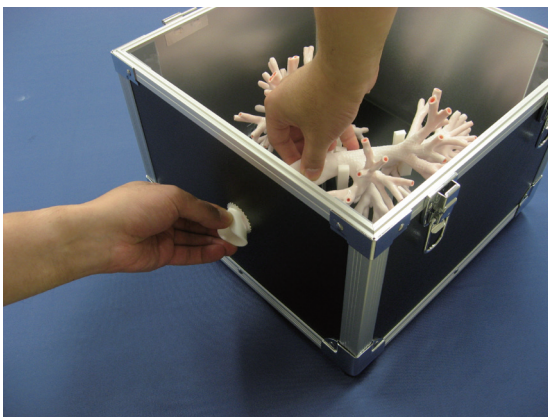


To remove the cover, slide it in the arrow direction when it is open.

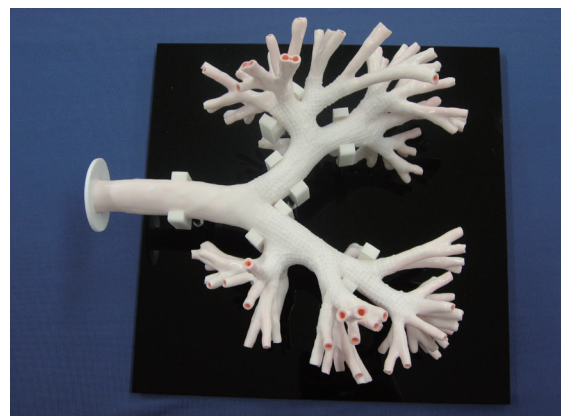
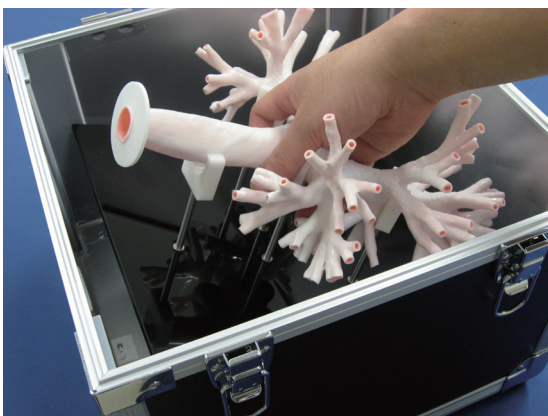


3-3. The bronchial unit can be removed from the box.

Hold the bronchoscope inlet of the bronchial unit and push it into the inside of the box.



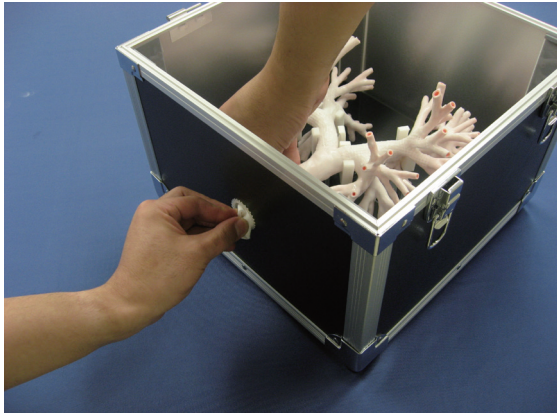
Now remove the bronchial unit together with the stand from the outer box.



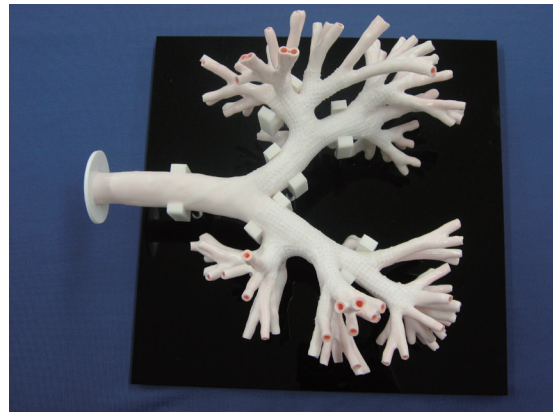
4. Cleaning and Maintenance

To remove the stain inside of the bronchial unit, it can be cleaned by the following procedure.

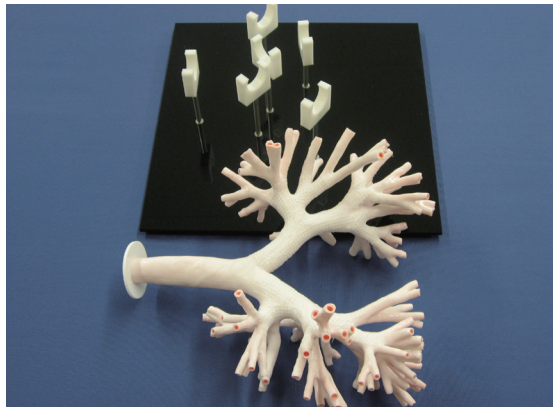
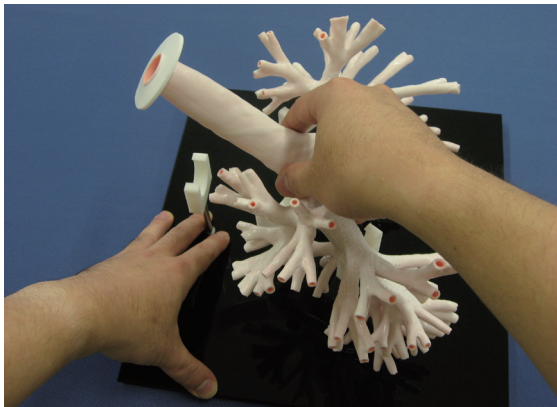
4-1. Hold the bronchoscope inlet of the bronchial unit and push it into the inside of the outer box.



4-2. Remove the bronchial unit together with the stand from the outer box.



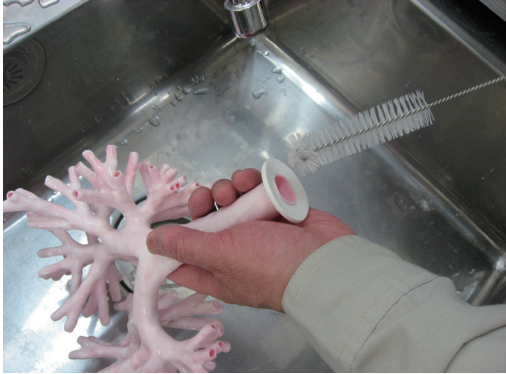
4-3. Remove the bronchial unit from the stand.



4-4. Rinse the inside of the bronchial unit using neutral detergent and a test tube brush or the like.

*** Since a test tube brush does not reach the peripheral end, do not try to insert it excessively.**

The bronchial unit may break.



4-5. Send water from the bronchoscope inlet and lightly massage the bronchial unit to clean its inside.

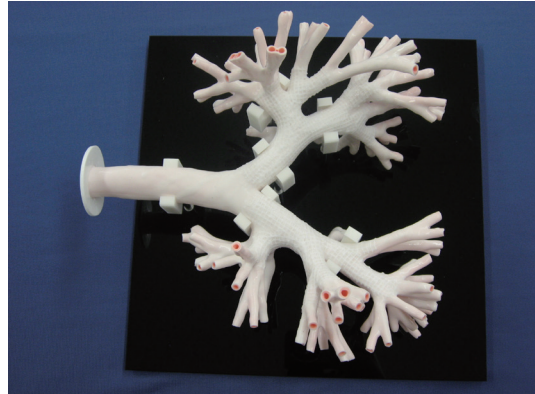
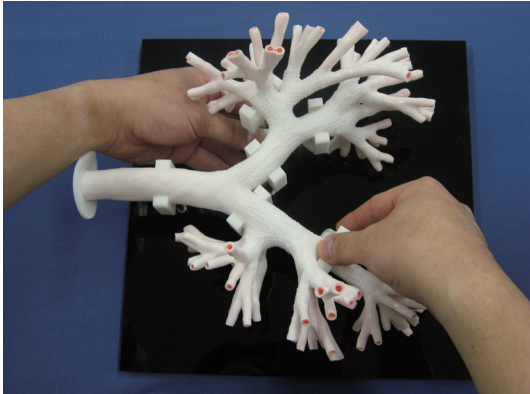
*** In massaging the bronchial unit, never use your fingernails as this may result in cracking.**



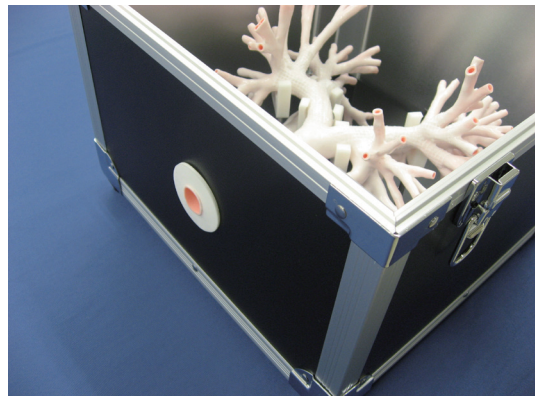
4-6. Wipe any water off the bronchial unit. Shake the bronchial unit to drain its inside of any water and place it in a location avoiding direct sunlight until it is completely dried.



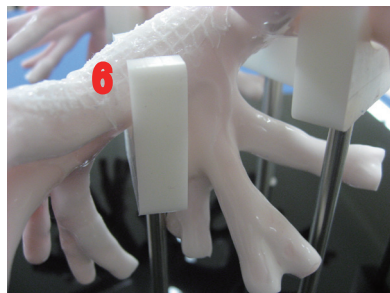
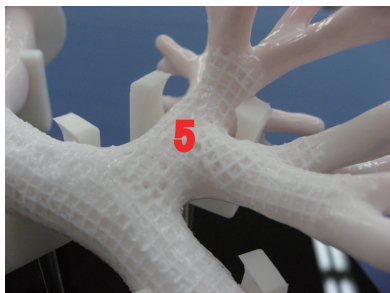
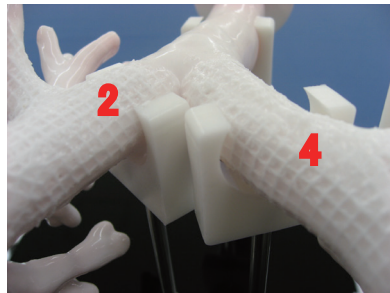
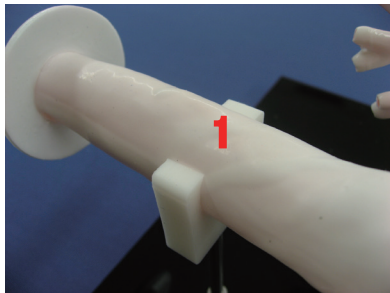
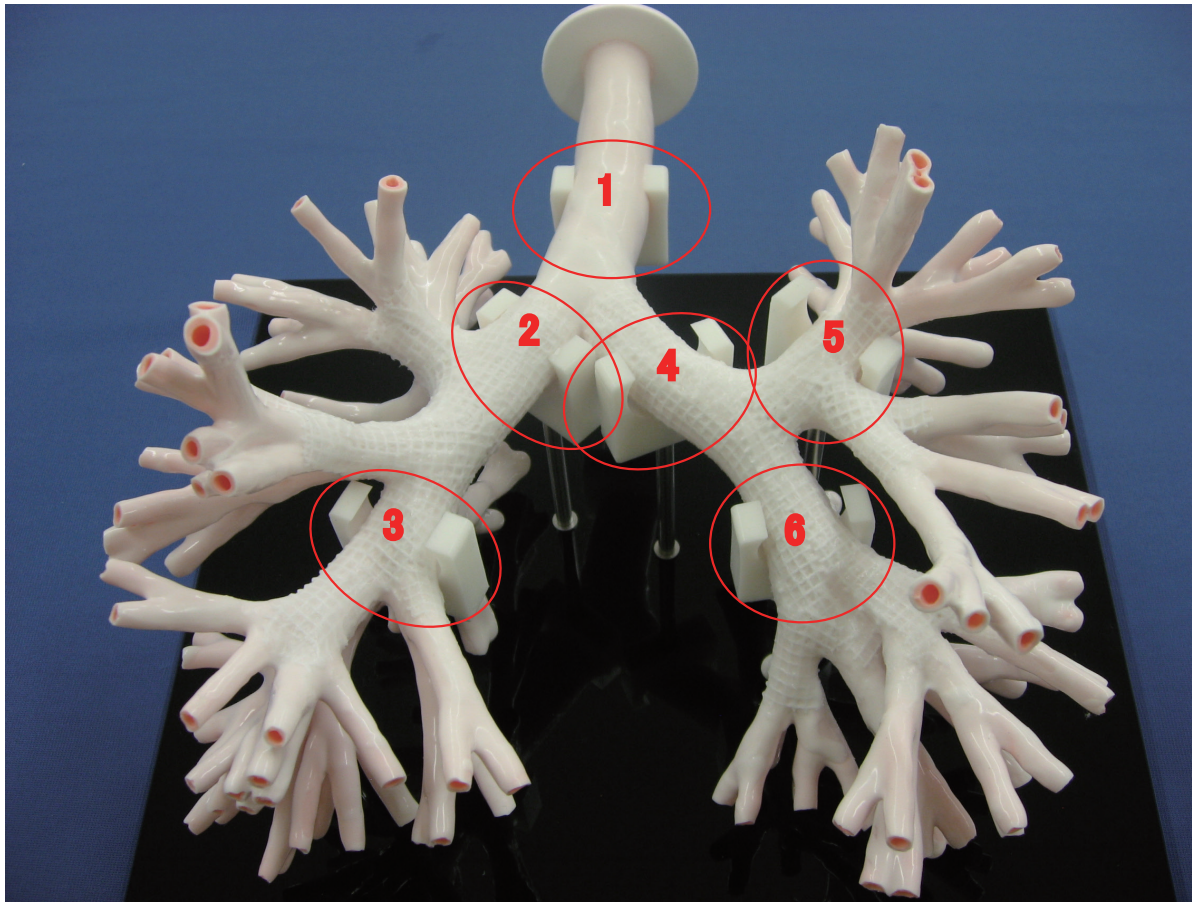
4-7. Attach the bronchial unit to the bronchial unit holders.



4-8. Place the bronchial unit together with the stand in the outer box and pass the bronchoscope inlet through from the inside of the box.

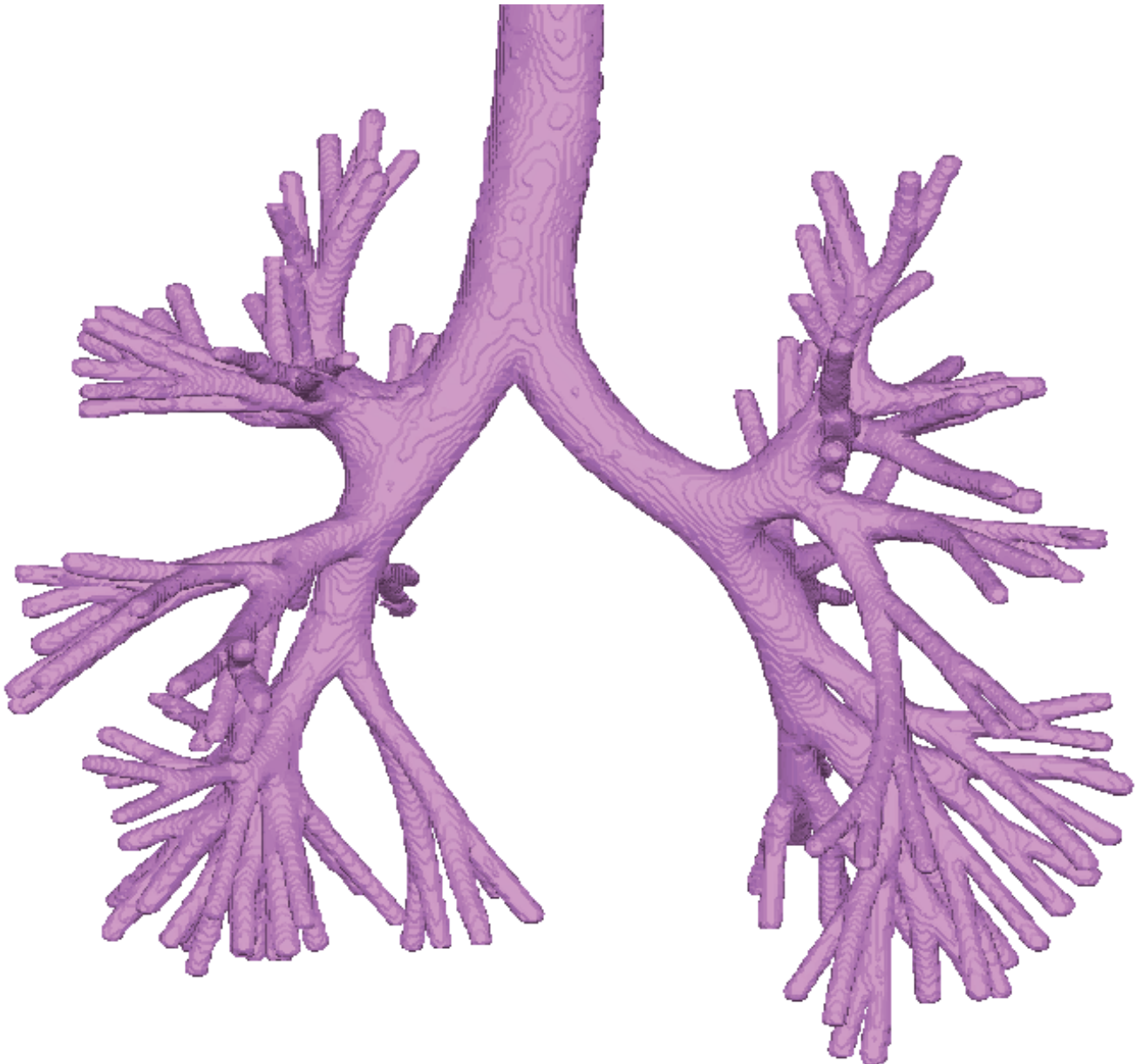


Positioning with bronchial unit holders

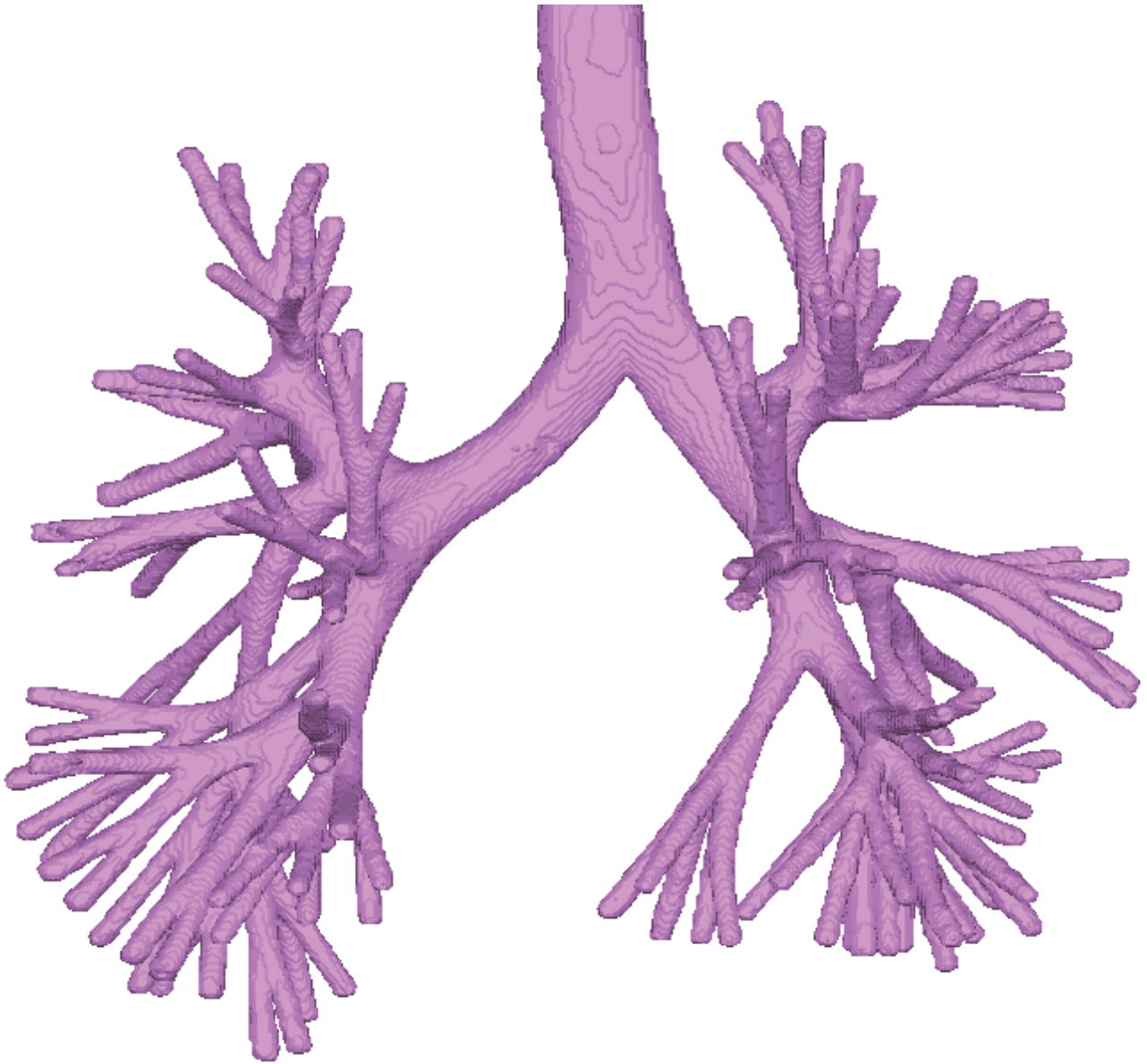


5. Views of Bronchial Model

Assign bronchial numbers using these views.



FRONT



BACK

6. Storage Procedure

1. Sufficiently dry the bronchial unit (residual rinsing water may cause mold growth).
2. Check that the bronchial unit is attached to the specified bronchial unit holders and place it in the box.
3. Close the cover of the box containing the bronchial unit and store the box in a location where it is not exposed to direct sunlight or ultraviolet rays.

7. Specifications

Product name	Length	Width	Height	Weight
Bronchial unit	Approx. 25 cm	Approx. 24 cm	Approx. 16 cm	
Case	Approx. 30 cm	Approx. 32 cm	Approx. 27 cm	Approx. 3kg (including the bronchial unit)