

Instructions for Use

Endovascular Procedure Training Model



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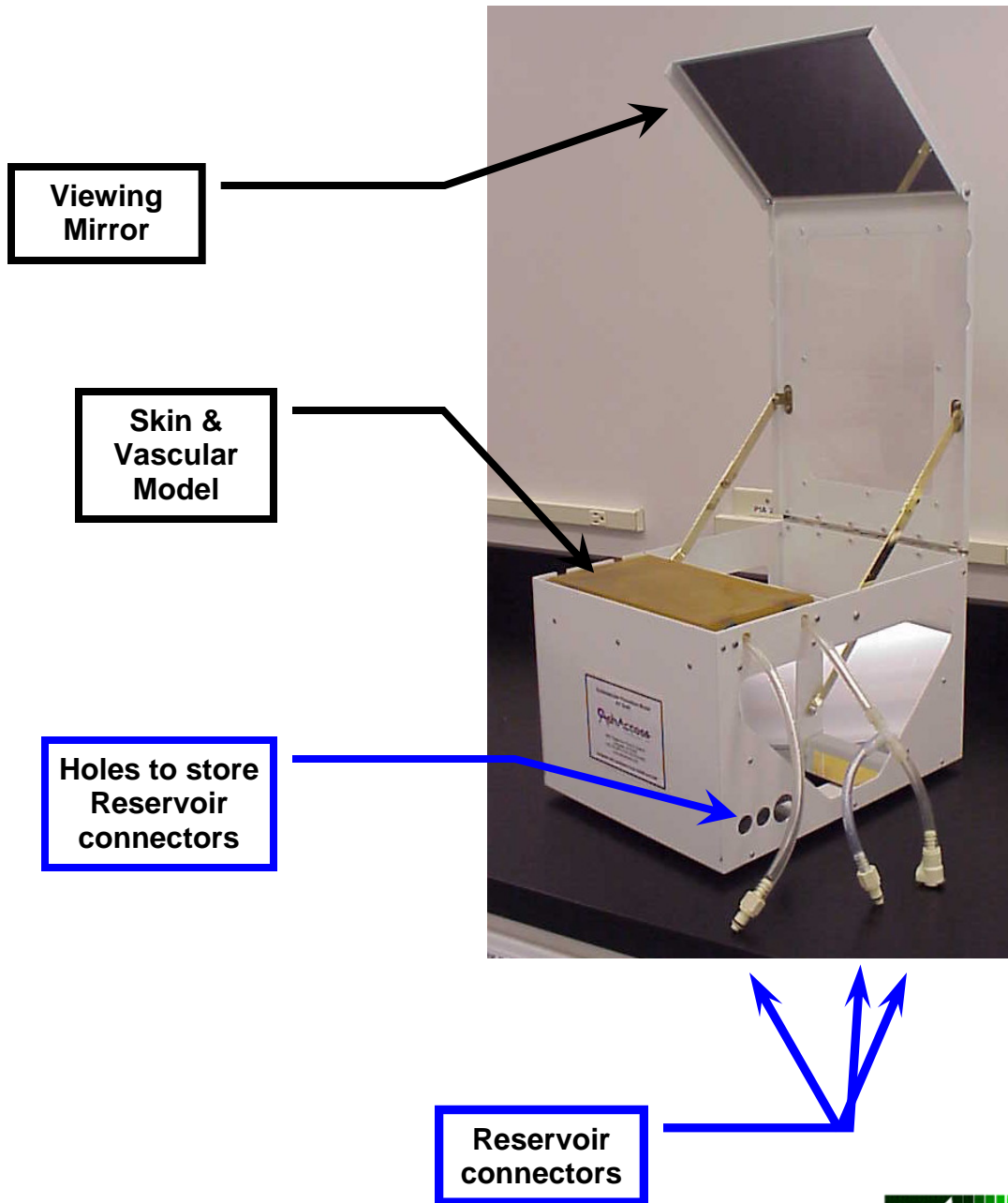
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Instructions Version 4.0
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Endovascular Training Model

Apparatus Components

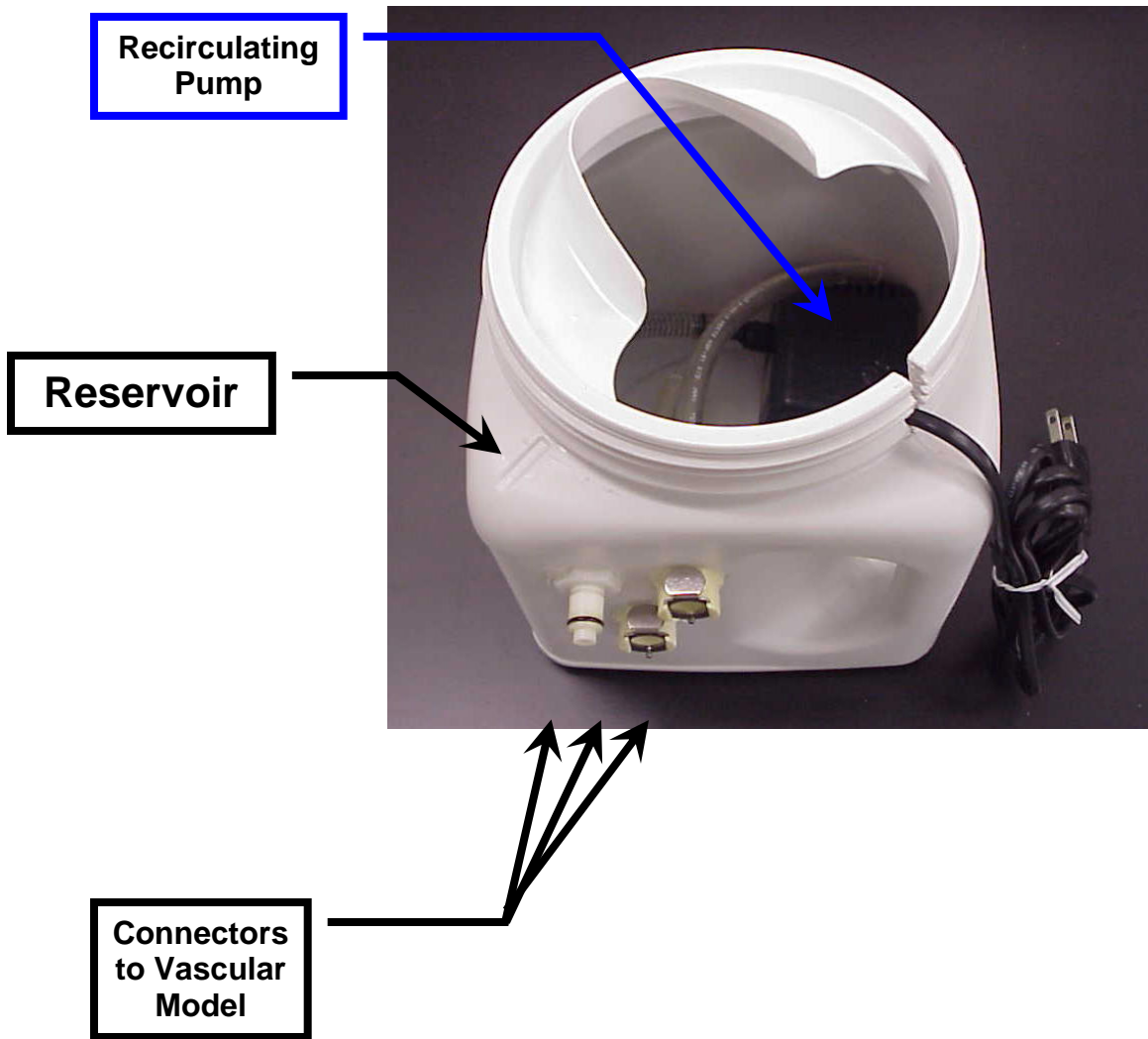
Cabinet and Vascular Model



Endovascular Training Model

Apparatus Components

Reservoir



Endovascular Training Model

Parts List

Quantity	Description
1	Endovascular Trainer Cabinet
1	Vascular Model
1	Simulated Skin (urethane sheet)
1	Reservoir with pump
1	Instructions for Use Booklet
	Supplies
1	Training solution in bottle
2	Citrate Buffer in zipper bag
2	10 mL Syringes
2	14 G Needles
2	18 G Needles
1	Conductivity Gel, tube or bottle

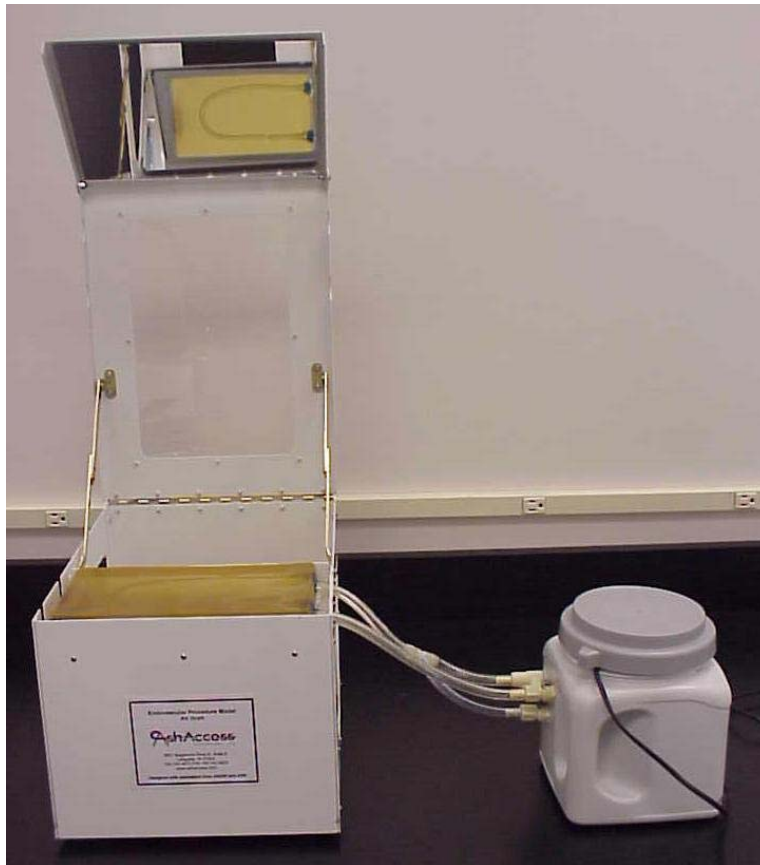
Note: Training solution is sulfobromophthalein (BSP) in NaOH (1 gram / L). BSP is a pH indicator and does not permanently stain many materials.

Citrate buffer solution, or any other acid, makes BSP solution turn colorless.

Instructions for Use

Endovascular Procedure Training Model

1. Setup the model as shown by doing the following:
 - A. Fill reservoir about half full of water (about 2 liters).
 - B. Add one bag of citrate buffer to reservoir.
 - C. Replace cover on reservoir. Agitate to assist citrate dissolving in water.
 - D. Connect reservoir to the vascular model. Two tubing connectors are identical and are interchangeable.
 - E. Plug pump into 110V outlet.
2. Prepare the model for use.
 - A. Start the recirculating pump to fill the system.
 - B. Allow time for the air to be purged from the system.
 - C. Adjust the top mirror for a clear view of the bottom of the vascular model.
 - D. Remove waxed paper from skin on top of vascular model.

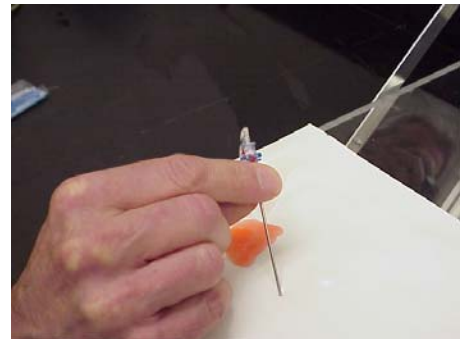


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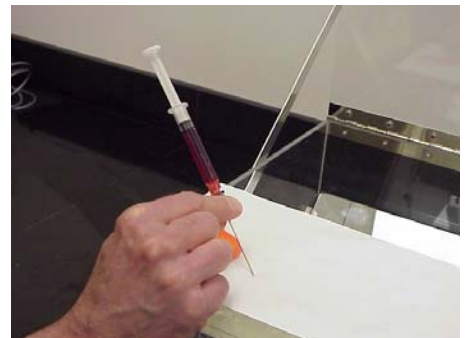
3. Place the rubber sheet (simulated skin) over the model. Using an index finger, push into the model to find the vein. Looking in the mirror will assist in this process.



4. Once the vessel is located, insert the needle. Fluid will leave the needle, indicating a successful placement.



5. To simulate an angiogram,
 - A. Turn off the pump.
 - B. Using a syringe, inject dye (simulated contrast medium) into the model.

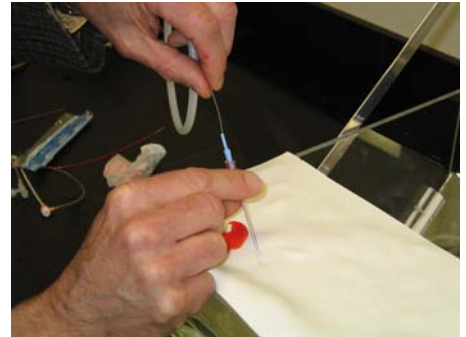


6. Looking into the mirror, a simulated radiologic image of the clot may be seen. Turn on the pump to flush the dye through the vascular model.

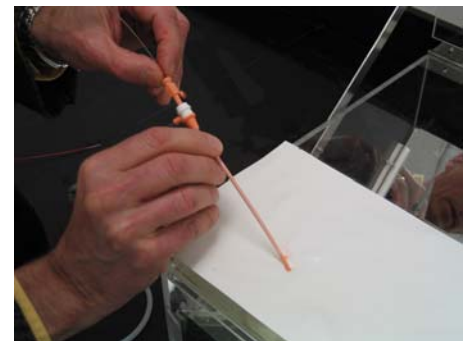


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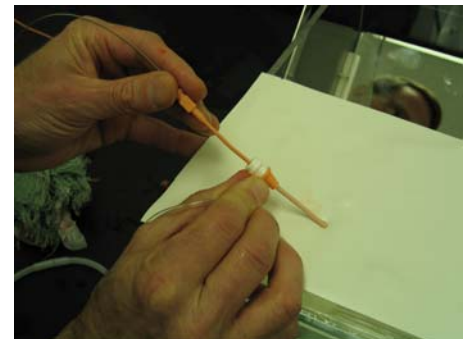
7. Continue the catheter placement by inserting a guide wire into the previously-placed needle.



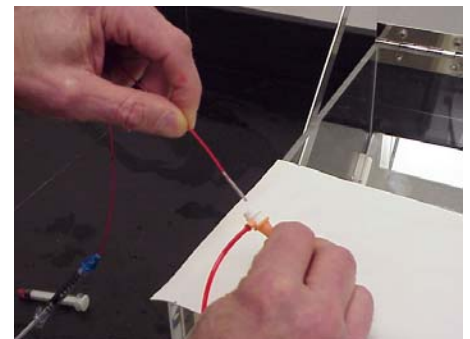
8. Insert the dilator and introducer (7 Fr maximum) over the guide wire as shown.



9. Remove the dilator and guide wire.



10. Insert a Fogarty balloon. Fill it with BSP solution.



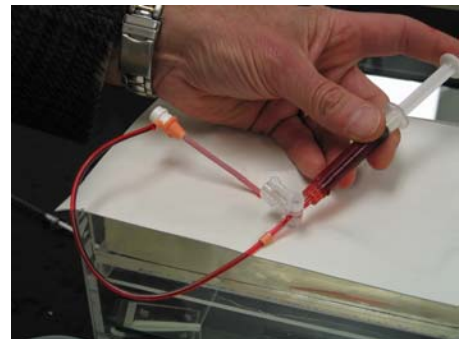
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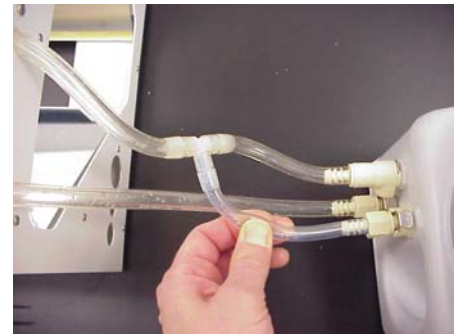
11. While viewing in the mirror, advance the balloon to the area of the stenosis. Inflate the balloon to dilate the stenosis.



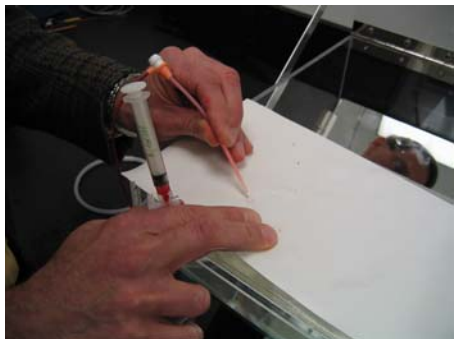
12. While viewing in the mirror, demonstrate an angiogram of the stenosis by injecting dye into the introducer.



13. If a clot demonstration is desired,
- A. Inject 5 mL ultrasound gel into the vascular model using a 14G needle.
 - B. Visualize the clot by injecting BSP solution using a 18G needle.
 - C. To simulate clearing of broken clot, squeeze the bypass tubing, as in photo. Hold this position until the gel leaves the model.



14. Remove the introducer.



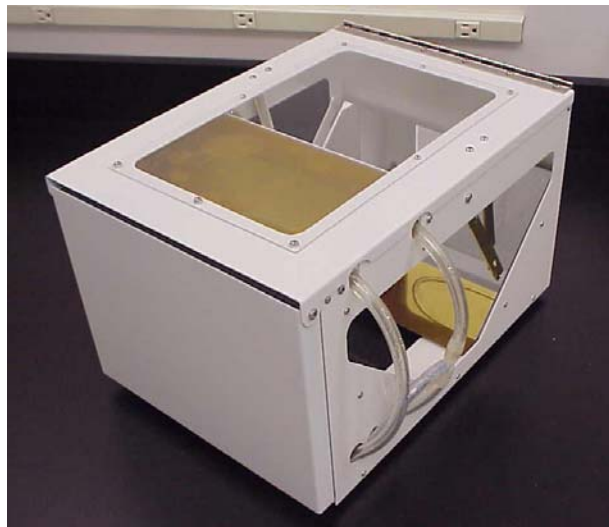
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Cleaning procedure for Endovascular Model

- A. Empty citrate solution from reservoir
- B. Fill reservoir half-full of clean water and rinse out vascular model.
- C. Empty reservoir.
- D. Connect empty reservoir to vascular model to drain the model.
- E. Wrap power cord around outside of reservoir.
- F. Place reservoir into bubble-wrap bag.
- G. Place bagged reservoir into cabinet

Endovascular Model folded for shipping



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