

# ArterioSim

## THE 3D PRINTED ENDOVASCULAR SIMULATOR

*ArterioSim is a 3D printed endovascular simulation model used to learn the basic skills needed for safe endovascular practice.*

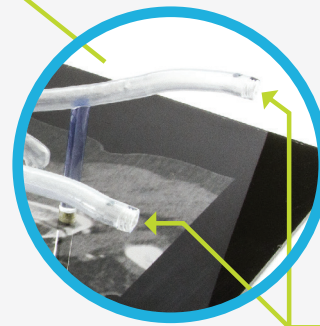


*It is watertight, lightweight, transparent, and portable.*



### Why Use ArterioSim?

- Aimed at early stage endovascular training for becoming familiar and comfortable with safe guidewire and catheter skills.
- Anatomically accurate, scale model of the human aorta and its major branches (Total Size W50 x H16 x L70cm).
- Reinforces core anatomical knowledge as the relevant coronal anatomy is incorporated into the plexiglas baseplate.
- Watertight, lightweight, transparent and portable.



ArterioSim is specifically designed to be used with real world tools so you can use your **normal catheters and guidewires**.

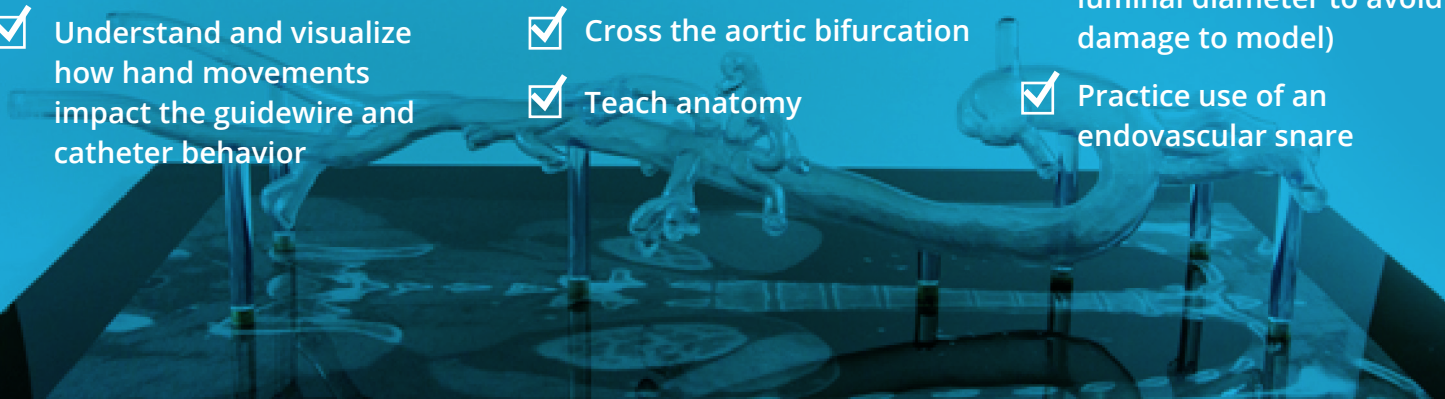
*Water can be inserted here*

Simply insert a standard 6Fr sheath into the pre-made holes and you can start using catheters & guidewires with a realistic feel. As the model can be filled with water, it is also compatible with hydrophilic guidewires!



### ArterioSim allows you to

- |  |   |  |
|--|---|--|
| ✓ Form endovascular catheters within the model   | ✓ Access visceral branches from the aorta | ✓ Iliac angioplasty (ensure balloon size is less than luminal diameter to avoid damage to model) |
| ✓ Understand and visualize how hand movements impact the guidewire and catheter behavior | ✓ Cross the aortic bifurcation            | ✓ Practice use of an endovascular snare  |
| ✓ Teach anatomy  |   |  |



## Instructions

- 1 Carefully invert the model so that the iliacs are facing upwards and gently fill the model with water via the end holes. The easiest way to fill the model is using a thin funnel or syringe. (Fig. 1)
- 2 While keeping the model inverted screw in the plastic plugs into the end of the model to avoid water leak. (Fig. 2)
- 3 Insert a 6Fr sheath into the pre-made holes. (Fig. 2)
- 4 Start simulating!

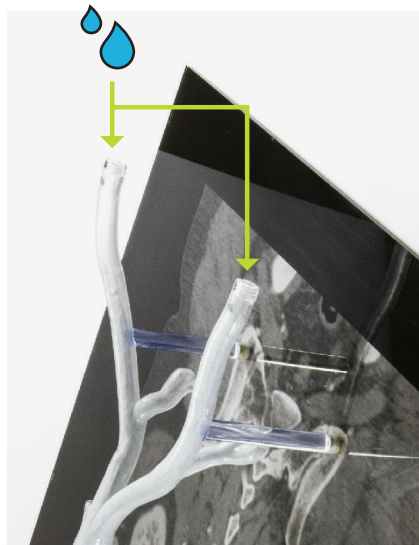


Fig. 1 Water can be inserted here

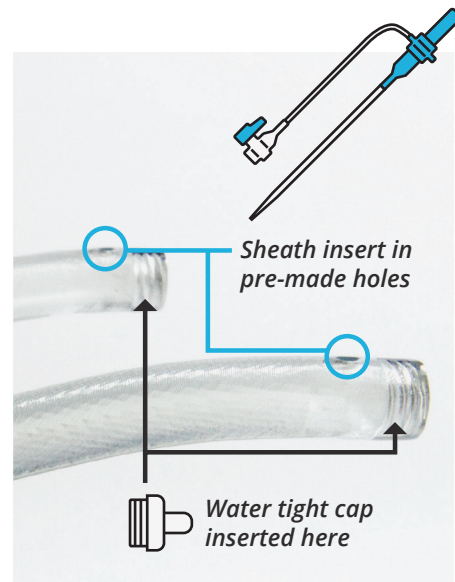


Fig. 2



### TOP TIP!

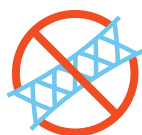
If any air bubbles remain in the model after filling with water, gently rotate the model to move the air bubble out, alternatively insert a catheter to the air bubble and aspirate the air out.



## Tips To Prolong The Life Of Your Model

### ArterioSim Is Designed To Be Used Repeatedly

*It is specifically developed to be durable, but still requires proper care.*



Do not deploy stents inside the model as it cannot be opened for stent retrieval.



The model is coated with a UV protective layer but avoid prolonged exposure to direct light as over time this may cause the 3D printed material to become discolored and less transparent.



Do not bend the plexiglas baseplate. This can disrupt the pillars and damage the model.



Drain the model after use and leave it to dry to avoid unwanted contamination.

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