



May 10,  
2019

Working

## U Mass - Surgery – carotid artery cannulation [↗](#)

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dx.doi.org/10.17504/protocols.io.x4pfqvn

Mouse Metabolic Phenotyping Centers

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### ABSTRACT

#### Summary:

Chronic indwelling catheter is placed in the carotid artery for blood sampling during experiments. Survival surgery is performed in anesthetized mice, and mice recover from surgery after 4~5 days.

### EXTERNAL LINK

<http://mmpc.org/shared/document.aspx?id=158&docType=Protocol>

### MATERIALS

NAME	CATALOG #	VENDOR	CAS NUMBER	RRID
0.9 % Sodium Chloride Injection USP	<a href="#">NDC0264-4001-55</a>	<a href="#">B.Braun Medical Inc</a>		
Ketamine	<a href="#">NDC50989-996-06</a>	<a href="#">Vedco</a>		
Xylazine	<a href="#">NADA#139-236</a>	<a href="#">AnaSed /LLOYD</a>		
Heparin	<a href="#">NDC0409-2723-01</a>	<a href="#">Hospira(Pfizer)</a>		
HelixMark Standard Silicone Tubing	<a href="#">0.012" ID / 0.025" OD</a>	<a href="#">Helix Medical, Inc.</a>		
Ketoprofen	<a href="#">07-803-7389</a>	<a href="#">Patterson Veterinary</a>		

### MATERIALS TEXT

#### Note:

**B Braun Medical**, Cite this ([B Braun Sharing Expertise, RRID:SCR\\_007148](#))

**Hospira**, [RRID:SCR\\_003985](#)

- 1 Anesthetize mice with an intraperitoneal injection of ketamine (100 mg/kg body weight) and xylazine (10 mg/kg body weight).
- 2 Check the level of general anesthesia using a pinch stimulus of animal's tail and/or foot.
- 3 Make a transverse incision (~0.5 cm) over the trachea, and isolate the carotid artery.
- 4 Carefully introduce a silastic catheter (PE 10) into the vessel. The catheter should be filled with a saline solution containing heparin (10

U/ml) and plugged.

- 5 Guide the catheter to the back of the neck, and place under the back skin to prevent its accessibility from the mouse.
- 6 Tie a silk to the catheter, and make a small opening at the back of neck.
- 7 This silk, which is partially exposed, will be used/pulled on the day of experiment to expose the catheter.
- 8 On the day of experiment, flush the catheter using a heparinised saline solution.
- 9 All surgical procedures should be performed using standardized aseptic techniques, and all surgical tools should be autoclaved following the surgery.
- 10 Apply post-operative care based on the institution's animal care and use committee standard operating policy.



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