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IV catheter making

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Works for me

This protocol is published without a DOI.

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PROTOCOL CITATION

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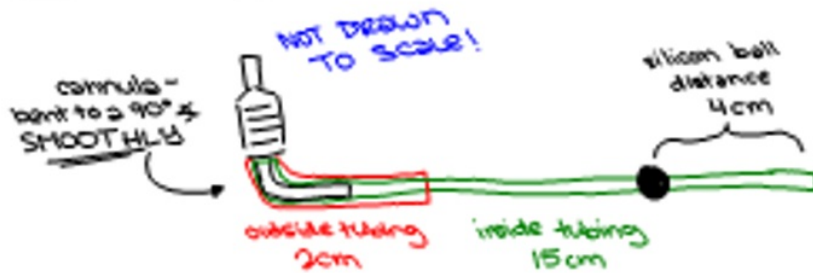
PROTOCOL INTEGER ID

39098

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A Simplified illustration of catheter making

Phase 1:



Phase 2:



- 2 Bend cannulas into a **curved** 90° angle making sure that the curve is not too sharp (1.5 cm from tip of bending tool)

Create a ruler from tape and mark all important sections

Start >> 15 cm >> Stop ** **SMALL** tubing should be a total of 15 cm

Make mark at 4 cm in from **stopping** point ** Silicone ball will be placed here

Make a mark 2 cm from **starting** point ** **LARGE** tubing should be a total of 2 cm

3



4 Cut and mark tubes

- * Small tubing 15 cm

- * Large tubing 2 cm

- * Mark for silicon ball at 4cm from ending point of small tubing

When finished cutting tubing, dip starting end of the small tubing (make sure not ending side) into CitriSolv to temporarily increase the diameter of the tube. Also fully submerge larger tubing in the CitriSolv. Let sit for 10 minutes

Thread small tubing over the bent end of the cannula and make sure that the tubing is touching the start of threaded portion of the cannula. (It will shrink as it dries and this will ensure it is as close as possible to the cannula when dried)

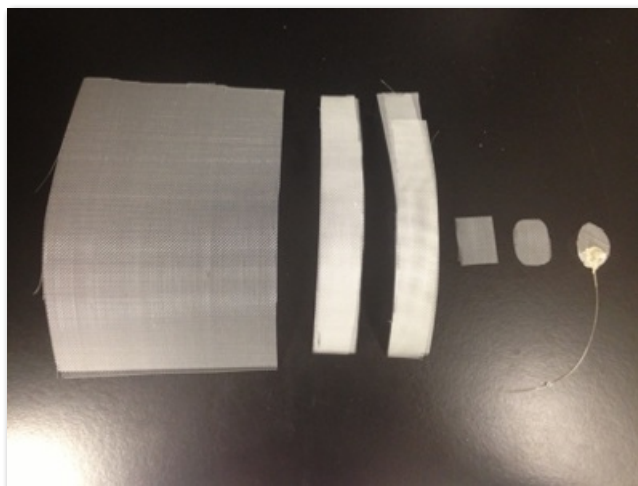
Let small tubing dry for around 2 hours

Thread larger tubing on the smaller tubing and make sure it is touching the start of the threaded portion of the cannula as well

Let dry over night

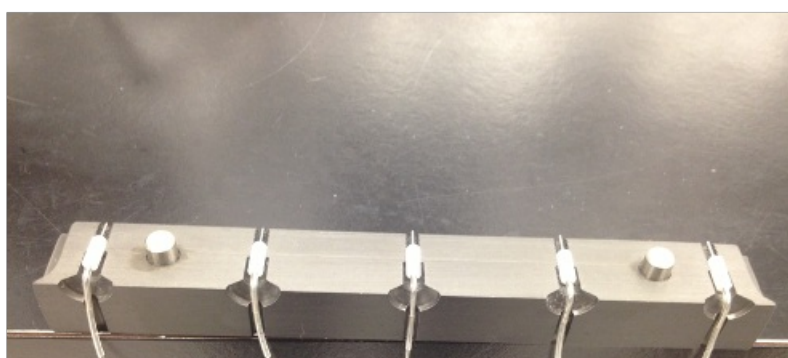
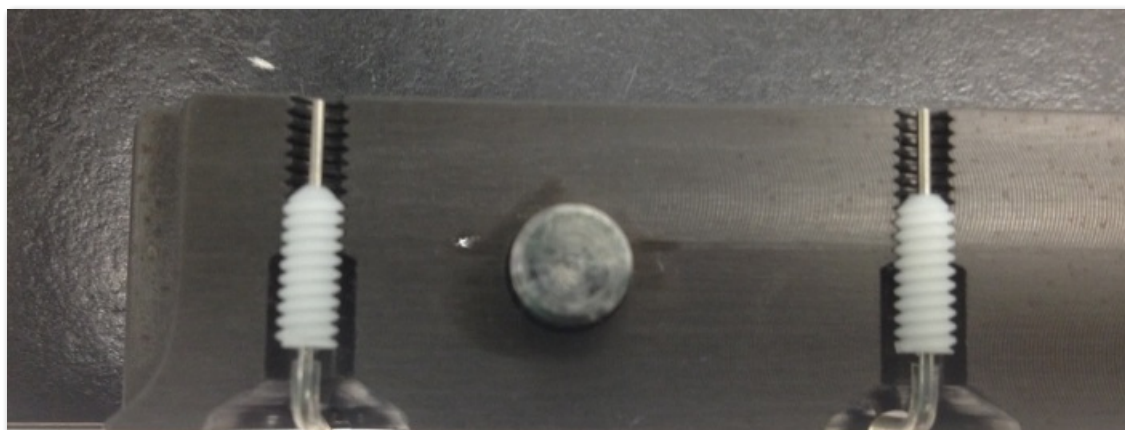
5 Cut mesh into round shape

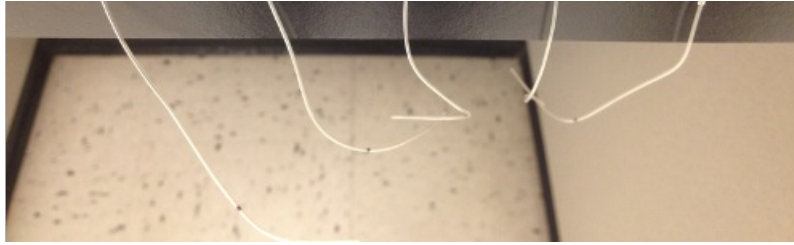
6



7 Place the cannulas in the mold. Have the threads of the cannula sitting into the threads of the mold

8





- 9 Place top of mold onto the other side of the mold that is holding the cannulas. Make sure the seal of the mold is tight, has no gaps and doesn't wobble

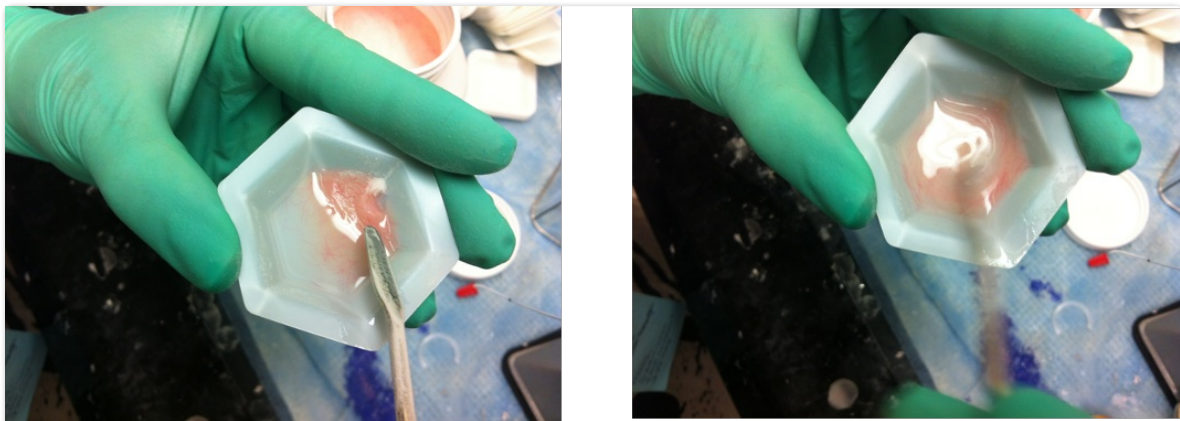
Put whole mold into the vice. Make sure the vice is level and not tilted

After putting the mold into the vice, bring the following supplies to the hood:

- Vice with mold
- Spatula
- Dental cement powder & liquid
- Mesh pieces
- Weigh boats for mixing the dental cement
- Silicon

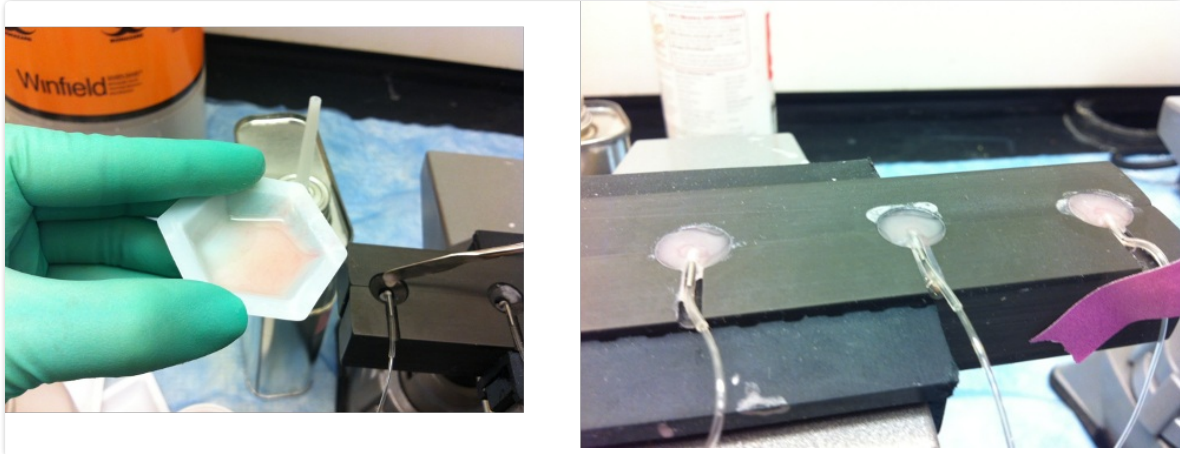
Mix dental cement powder with the liquid to create the dental cement

10



- 11 Quickly fill each well with the mixture using the spatula. Make sure that the mixture has sunk to the bottom of the mold before adding more

12



13 Place mesh on top of wet cement then add a bit more to seal mesh in place. Let dry at least 30 minutes and then take them out of mold

14 Shave off any rough edges around the base/port of the catheter, then flush them with water to ensure no leaks or holes