

Creating Inexpensive Suture @ \$0.01 per foot:

A = Items:

- 1) **Wide Mouth** quart size glass Jar: 16 OZ Mason jar (Walmart)
- 2) 4" Inch square of gauze
- 3) Berkley "Super Strength" Green Trilene "Big Game" 10 lb, 1,500 yd, .012 avg.dia. (Walmart)
- 4) Needle for 10 lb suture: 22 X 1
- 5) Purple needle plug for 10 lb
- 6) Berkley "Super Strength" Green Trilene "Big Game" 20 lb, 650 yd, .018 avg. dia. (Walmart)
- 7) Needle for 20 lb suture: 18 X 1
- 8) Orange needle plug for 20 lb



20 lb = 650 YD, 10 lb = 1,500 yd

Rubber plug different color to quickly identify size

B = Tools:

- 1) Drill bit
- 2) Tapered rasp
- 3) Xacto knife/blade



Drill lid slowly and carefully reversing sides, use rasp to finish hole smoothly, insert plug, needle, gauze.

C = Prepare Lid:

- 1) Drill hole in lid slowly and carefully – reversing sides, – hole size just under rubber plug diameter
- 2) Use rasp to clean up edges by hand
- 3) Insert rubber plug into hole
- 4) Insert needle into **Purple** needle plug, 10 lb, suture: 22 X 1
- 5) Insert needle into **Orange** needle plug, 20 lb, suture: 18 X 1
- 6) 4" square of gauze, fold diagonally – twice
- 7) Center gauze onto needle below lid

D = Prepare Suture in Jar:

- 8) Use Xacto blade to carve out clean round hole in center of suture spool
- 9) Unwrap suture and Insert line up thru exposed hole
- 10) Drop suture "label down" into 16 oz jar
- 11) Pull suture up thru center of suture spool
- 12) Feed end of suture up thru needle - then screw lid and pull suture up and out



Xacto blade trims center – insert suture Folded gauze prevents suture from unraveling above spool

E = Final Sterilization Process:

- 1) Take the needle and insert it in the rubber plug, next to the suture, while creating a new opening for it.
- 2) Secure the suture ,with autoclave safe tape, on top of the lid so it won't touch the needle: Super important because the needle is needed for ventilation in the sterilization process but can melt the suture if they come in contact with each other
- 3) Place suture into Autoclave – and run sterilization cycle
- 4) Upon pulling suture from Autoclave – extract needle and discard
- 5) Suture is sterile, cost: Approximately: \$0.01 per foot



Process:

You can purchase the fishing line at Walmart and the “Wide Mouth” quart size glass jars as well. To prepare the lid – drill hole carefully to fit tightly a rubber needle plug, we use Purple for 10 lb, Orange for 20 lb. We drill slowly from each side until the desired hole size is there...and use the rasp carefully to smooth any burrs. Then we insert the rubber plug and insert the proper needle depending upon the color/size of suture. Fold a 4” gauze square into half diagonally then half again and place over the portion of the needle.

Then we trim the hole thru the label center of the suture reel with an Xacto blade and thread the suture up thru the center of the hole. The reel is dropped into the jar with label face down and suture coming up thru the center. Thread the suture into the end of the needle and out the top – screw on lid, remove the needle and place it beside the suture in the rubber plug without coming in contact with the suture that is all ready secured with autoclave safe tape on the lid. Place the jar in the autoclave. Once the sterilization cycle has completed remove and discard the needle. Label clearly the suture size on the top and sides of the finished unit.

Last recommendation: When sterilizing, first run a test cycle with one of each types of sutures so that you are sure you’re setting the autoclave in the correct mode/temperature to insure that the reel and/or suture won’t melt. We have seen a good outcome in the smaller autoclaves but we’ve had to make some setting adjustments in the bigger ones to avoid damage to the product being sterilized.

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