



# Equipment for Device Retrieval

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# **First Equipment you will need!**

## **Keep calm and conscious**

- **Contain it**
- **Solve it**

# Basic Needs



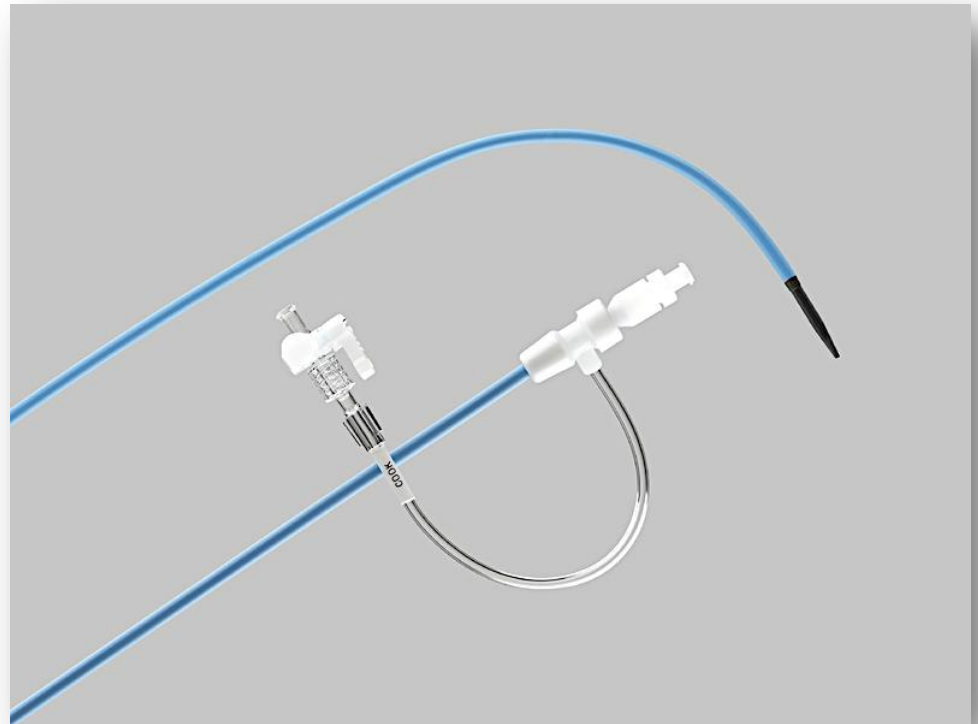


It's better to solve it while you're working with **bi-plane fluoroscopic system.**



# Need a large, long recovery sheath

- At least 85 cm length.
- 2-3 Fr. larger than the original sheath diameter.
- Ability to shape, kink resistance.
- Bleed-back valve/ Y-adaptor.



# Retrievers

- **Snares**
- **Baskets**
- **Forceps**

# Snares



# Snare

- **Goose-Neck™ Snare** (*Microvena, ev3*)
- **EN Snare™** (*Merit Medical*)
- **Multi-Snare™** (*Pfm Medical, Boston Scientific*)
- **Expro™ Elite Snare** (*Radius Medical Technologies*)
- **Curry™ Intravascular Retrieval Sets** (*Cook*)
- **Welter™ Retrieval Loop Catheter** (*Cook*)
- **Needle Eye snare** (*Cook*)

## Micro-snare

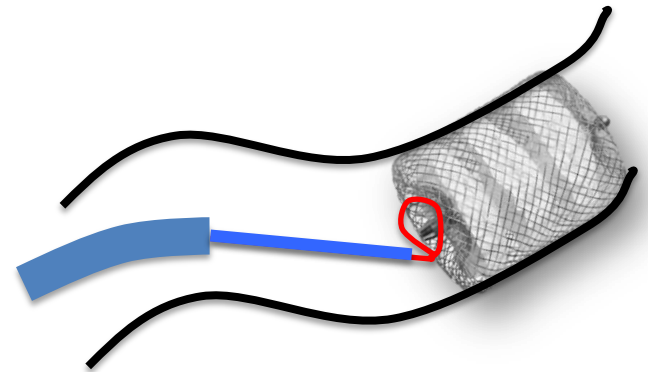
- **GooseNeck™** (*ev3*)
- **Micro™ Elite Snare** (*Radius Medical Technologies*)

# Amplatz Goose-Neck™ Snare

*(Microvena, ev3)*



- Nitinol wire loop (shape memory).
- Open in fix diameter in 90°
- 5 to 35 mm diameter.
- 4Fr catheter for 5-10 mm.
- Micro-snare is also available from 2-7 mm in diameter.
- Snare length 65 and 120 mm.
- Catheter length 48 and 102 mm.

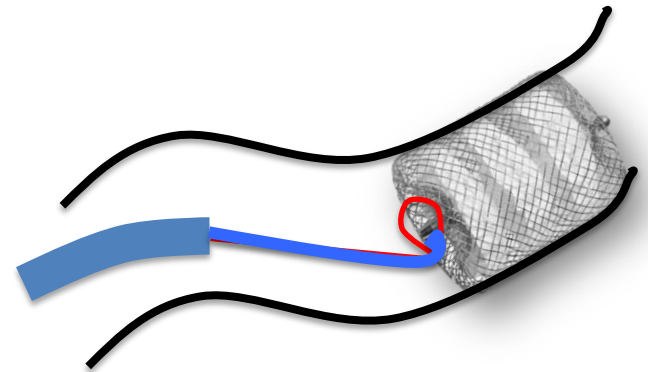


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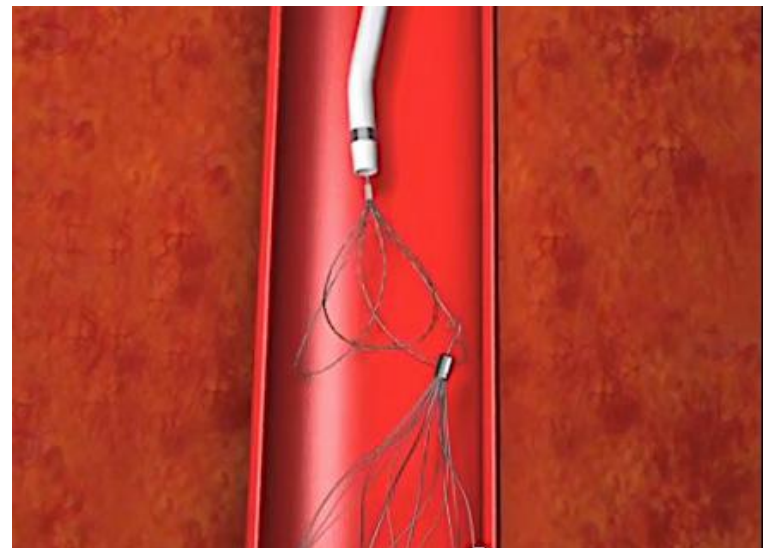
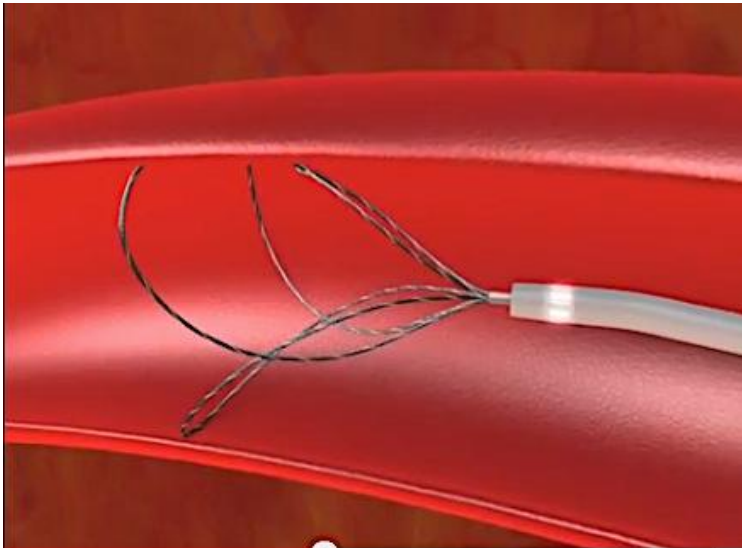


# EN Snare™

*(Merit Medical)*

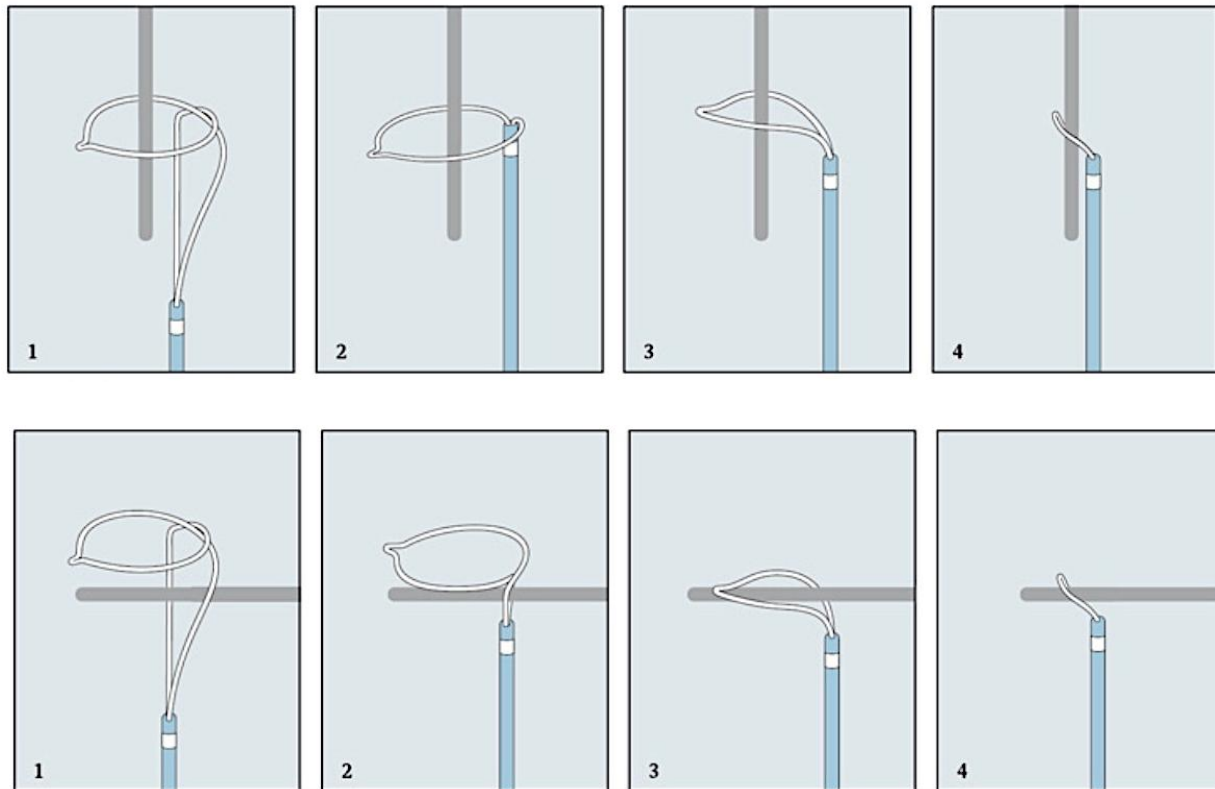
- 3 Nitinol wire loops.
- Diameter from 2 - 45 mm.
- Length 175 cm (or 2-8 mm) and 120 cm (for the rest)
- Catheter size 3.2 to 7 Fr.

**Endovascular snare.  
Good for side wall object.**



# Multi-snare™

*(Pfm Medical, Boston Scientific)*

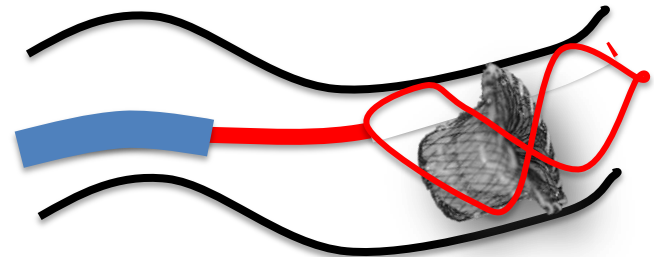
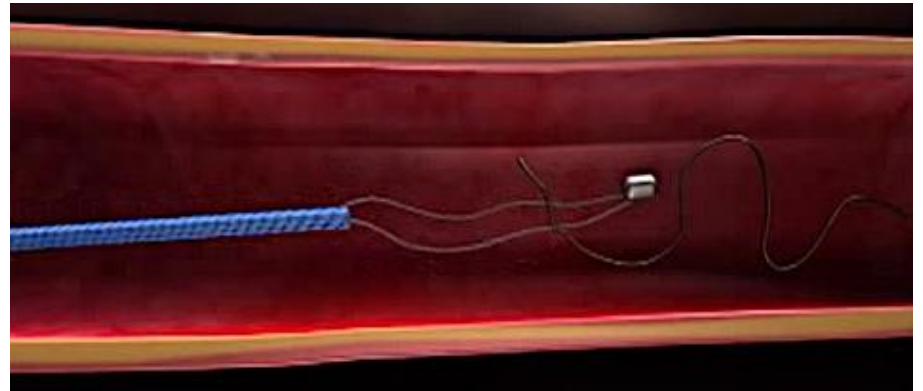
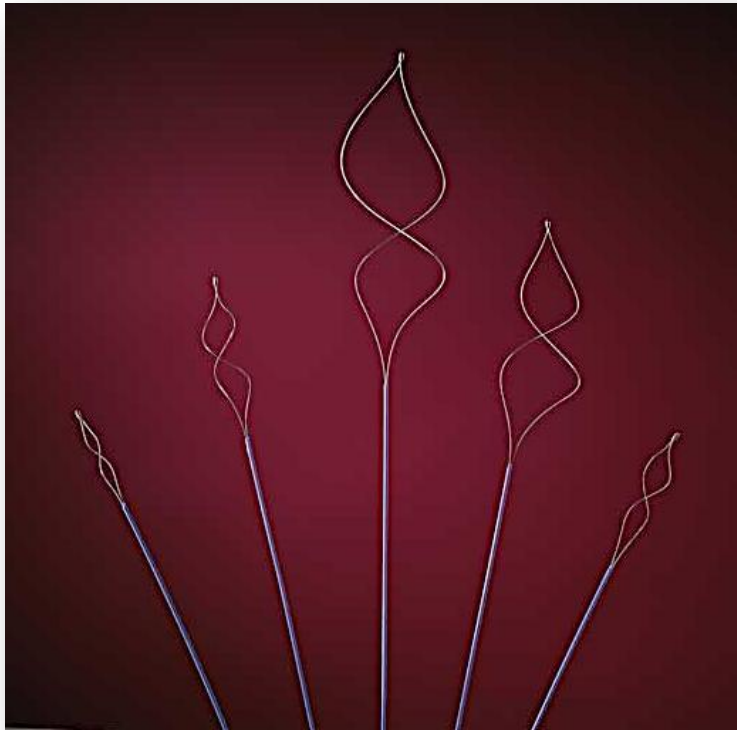


- Double loop configure
- 5- 30 mm snare diameter (micro set is also available)
- 4-6 Fr carrier catheter (125 cm length)
- 15 mm snare length

# Expro™ Elite Snare

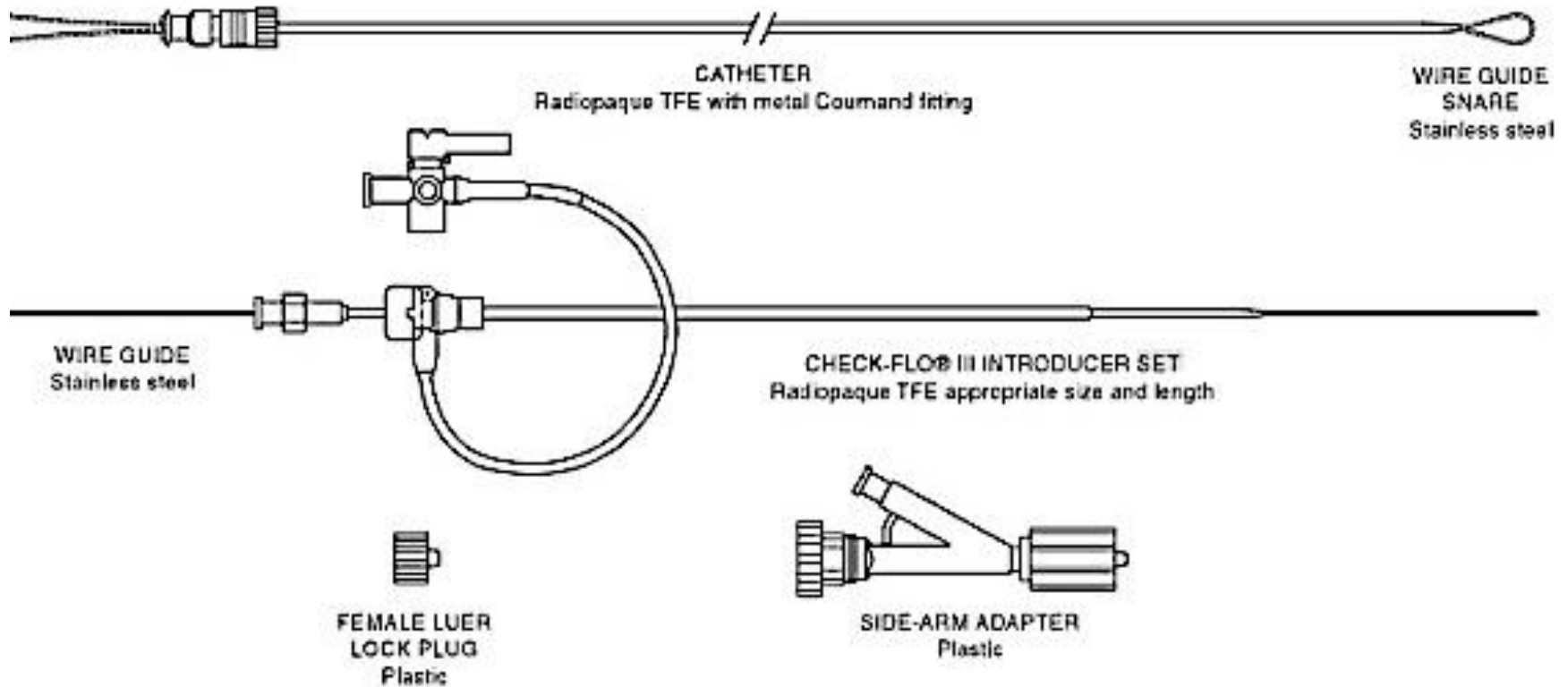
*(Radius Medical Technologies)*

- 0.035" profile.
- 2 helical loop wires.
- Loop diameter 5,10,15,25,35 mm.





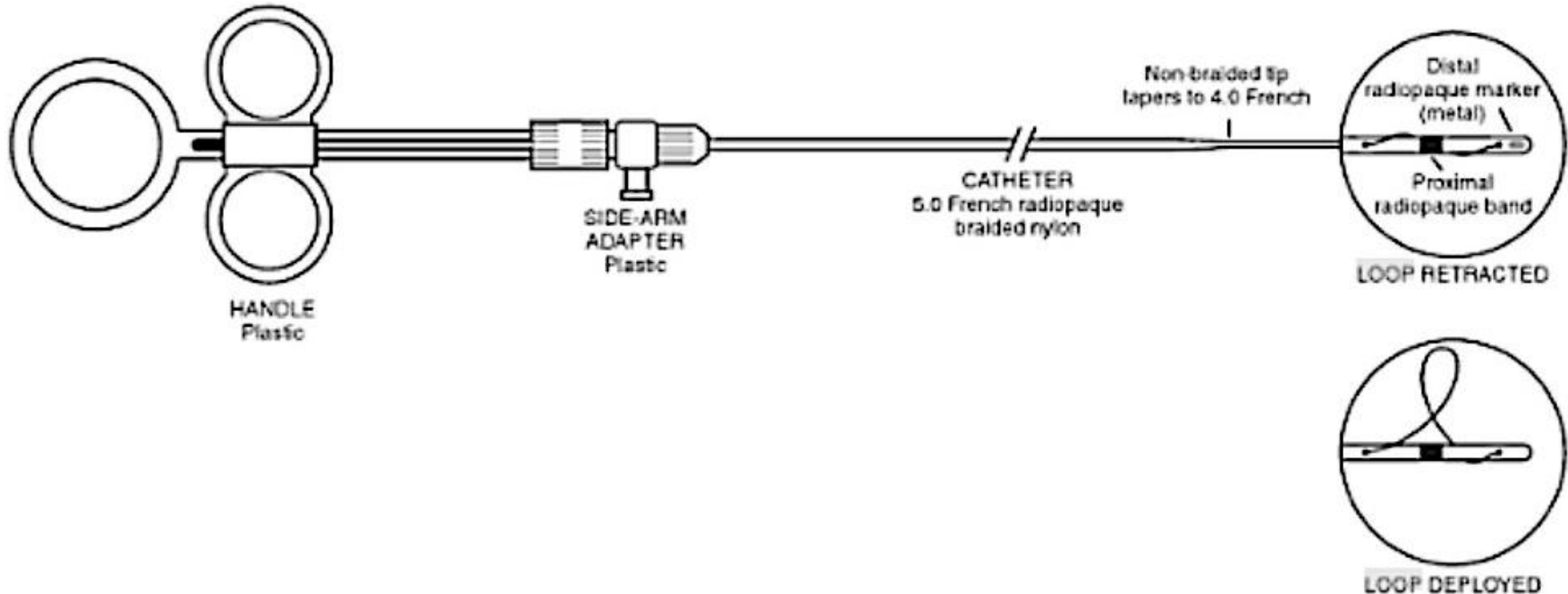
# Curry™ Intravascular Retrieval Set (Cook)



# Welter™ retrieval loop

(Cook)

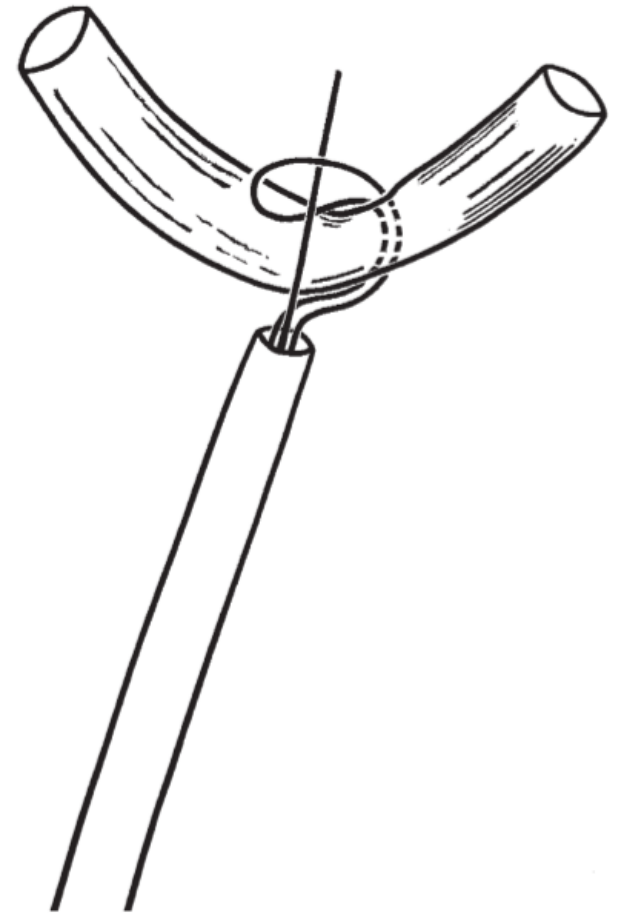
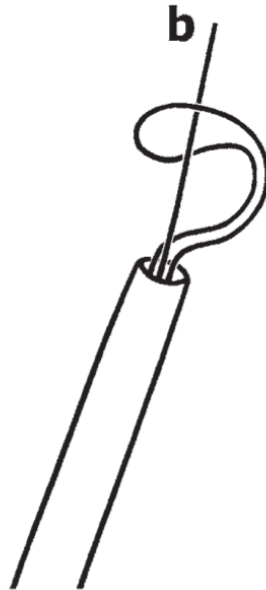
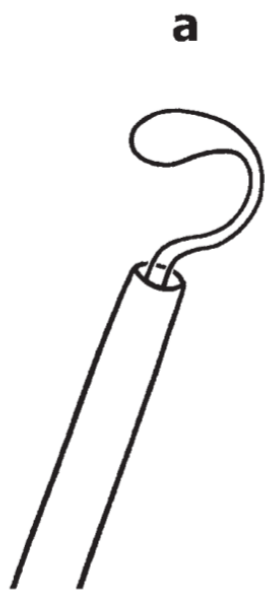
- 5Fr, braided catheter, tapered to 4Fr non braided-segment at distal end.
- Retrieve object by opening up loop wire at the catheter's tip.



# The Needle Eye™ Snare

(Cook)

- Made from shape-retentive alloy.
- 12 Fr. carrier catheter.
- Need 14 Fr. long sheath.
- Design for pacemaker lead extraction.
- Strongest retrieval system.



# Baskets

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- Borrow from urologist and gastroenterologist.
- 3-5 fine strands of wire attached together.
- Needs 3-4 Fr larger than the carrier catheter for the basket device.

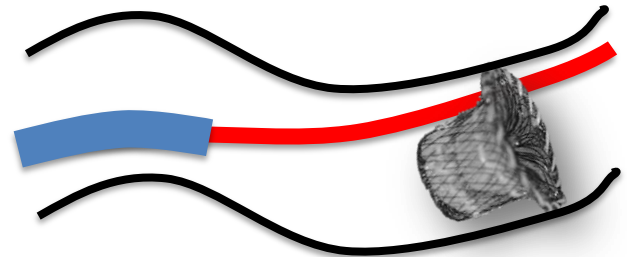


## Medi-tech™ retrieval basket (*Boston Scientific*)

- Spiral basket
- Diameter 15 or 25 mm.
- 5Fr carrier catheter.
- 120 and 150 cm length.

## Segura basket™ (*Boston Scientific*)

- 4 flat wires.
- 16 and 20 mm diameter.
- 4.5 and 7Fr carrier catheter with 70 cm length.



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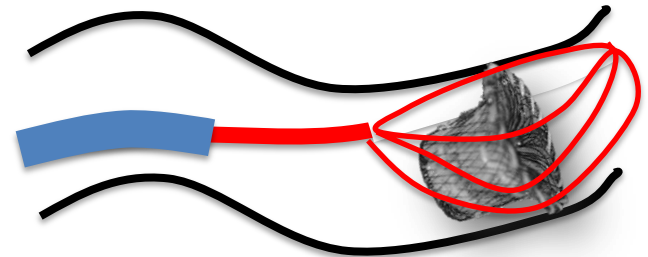


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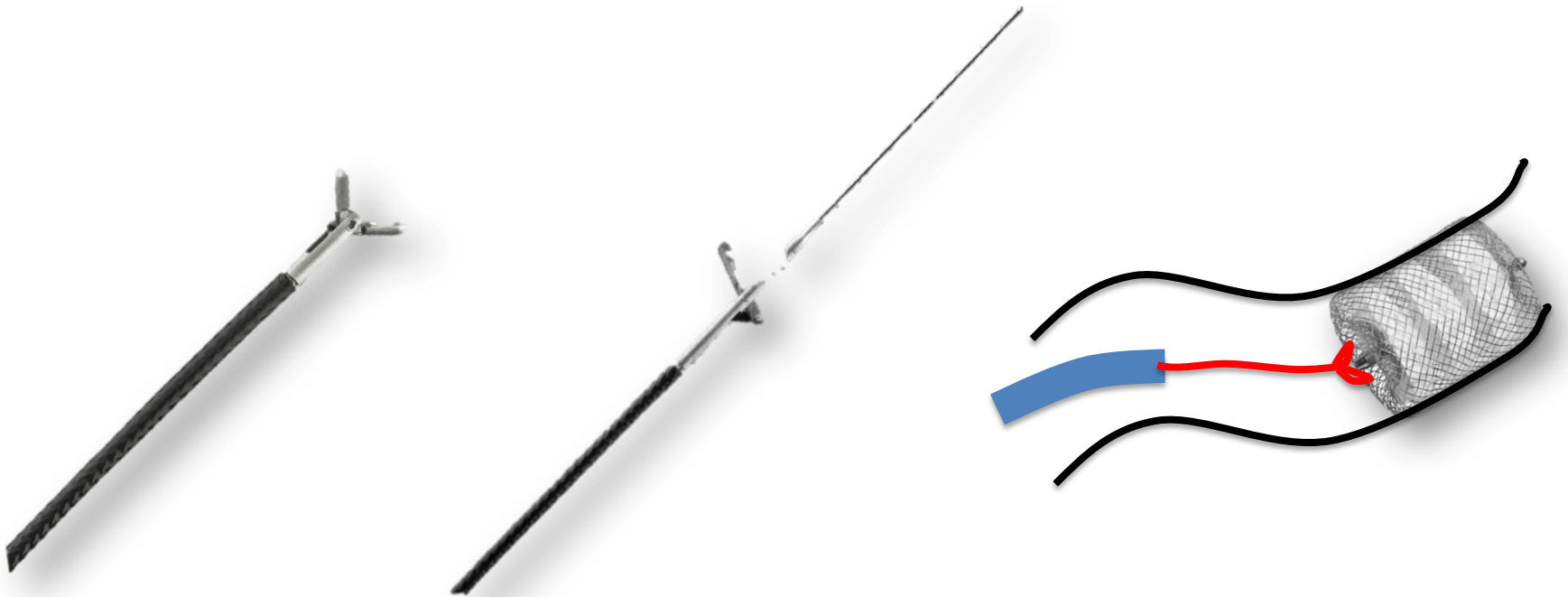




# Forceps

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- **Bioptome forceps** (6-7 Fr.)
- **Grasping™ forceps** (*Boston Scientific*)
- **Vascular retrieval forceps.** (*Cook*)



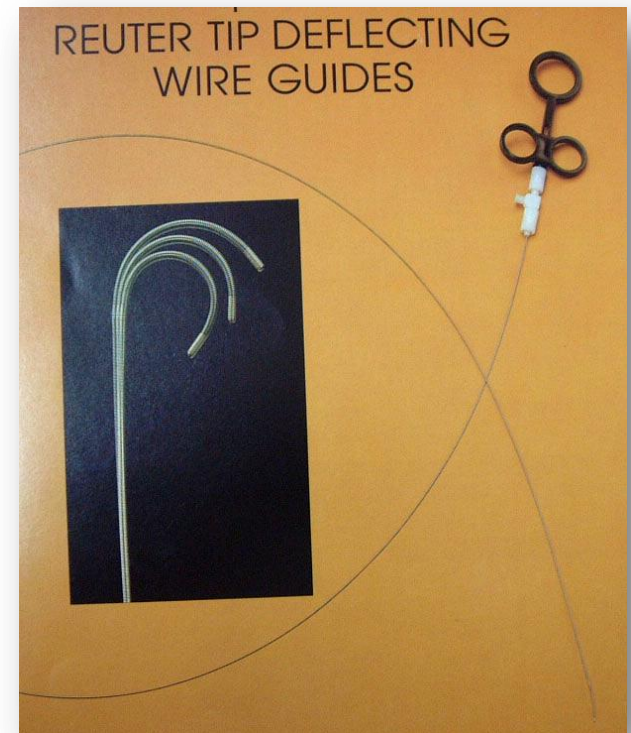
# Container/ Stabilizer/Back up

- **Guide Wires**

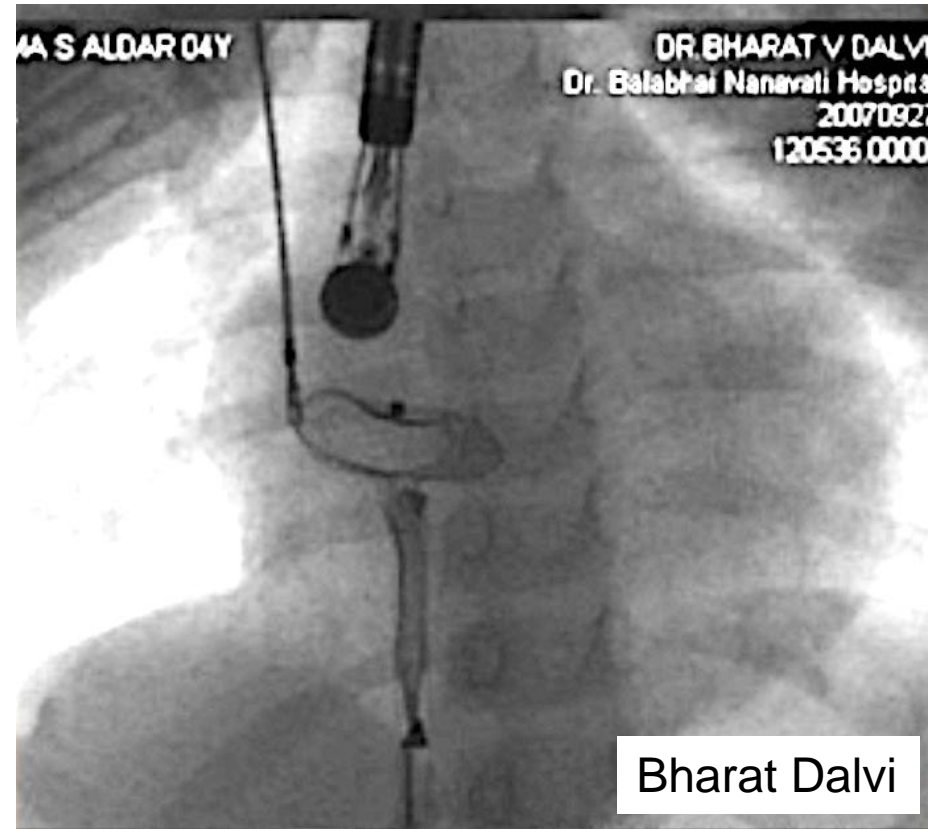
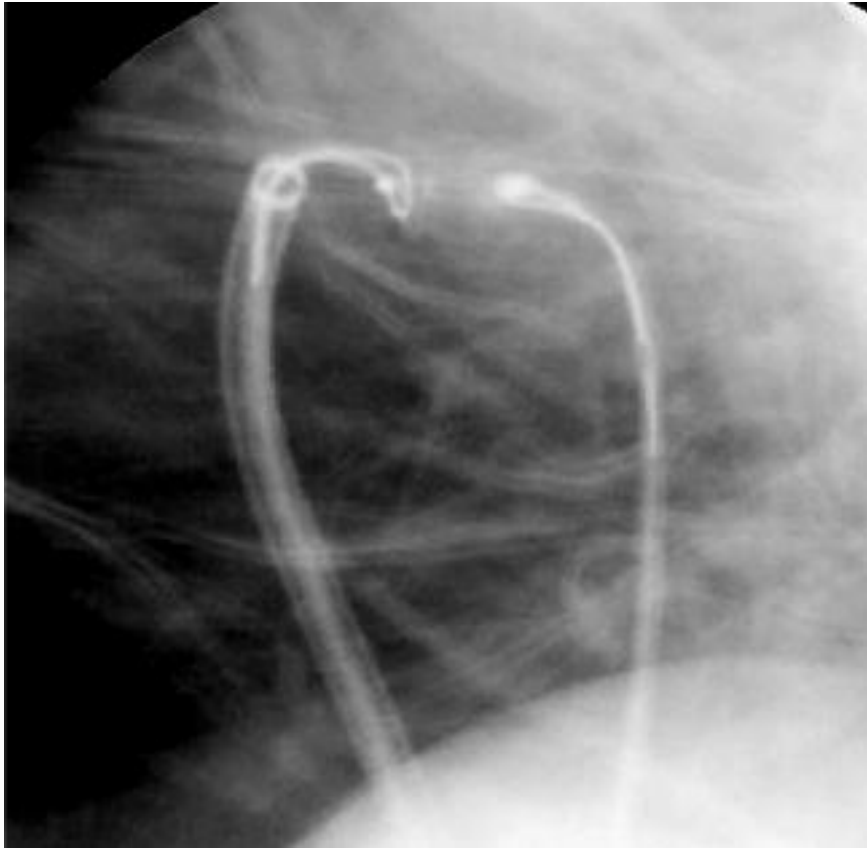
- Tip deflecting guide wire (Cook, Cordis)
- Terumo
- Spring wire
- Stiff wire

- **Forceps**

- **Snare**



# Container/ Stabilizer/Back up



# Container/ Stabilizer/Back up



Levi D, Moore JW. CCI 2004

# **Last but not least.... Your Team!**

- **Let them know and share your plan.**
- **Your surgeon is always your best .....  
(not equipment, but) friend.**





**I do thing that I think its  
useful..... and that's all!**

If you ask me what I have in mind.  
What's the plan I have?

**I have no plan!**

Just like I'm today. We are going to have  
something and we are going to do it. We don't  
know what something is, but we are going to do  
something that is good.