



# Foreign Body Removal

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# Fish Hook Removal



# Fish Hook Removal

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[https://www.youtube.com/watch?v=-2Re91\\_P7KE](https://www.youtube.com/watch?v=-2Re91_P7KE)

# Fish Hook Removal Techniques

1. Retrograde
2. String technique
3. Needle Sheath
4. Advance & Cut

\*Reminder to cover other exposed barbs\*



Octopus Hook



EWG Worm Hook



Aberdeen Hook

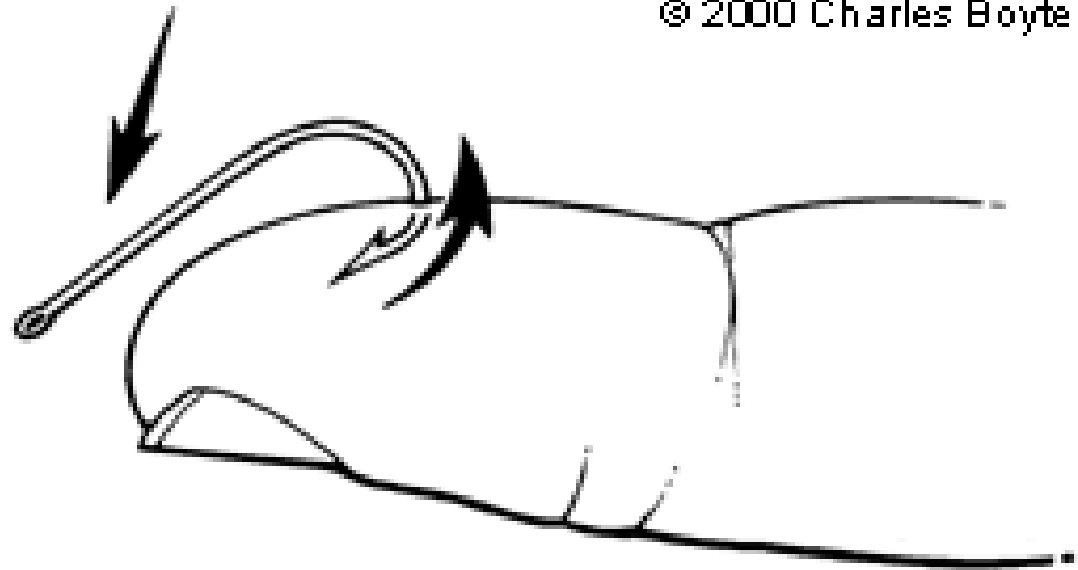


Treble Hook

# Retrograde

Apply downward pressure to the shank of the hook. Then back the hook out from the point of entry. This maneuver helps rotate the hook and disengage the barb.

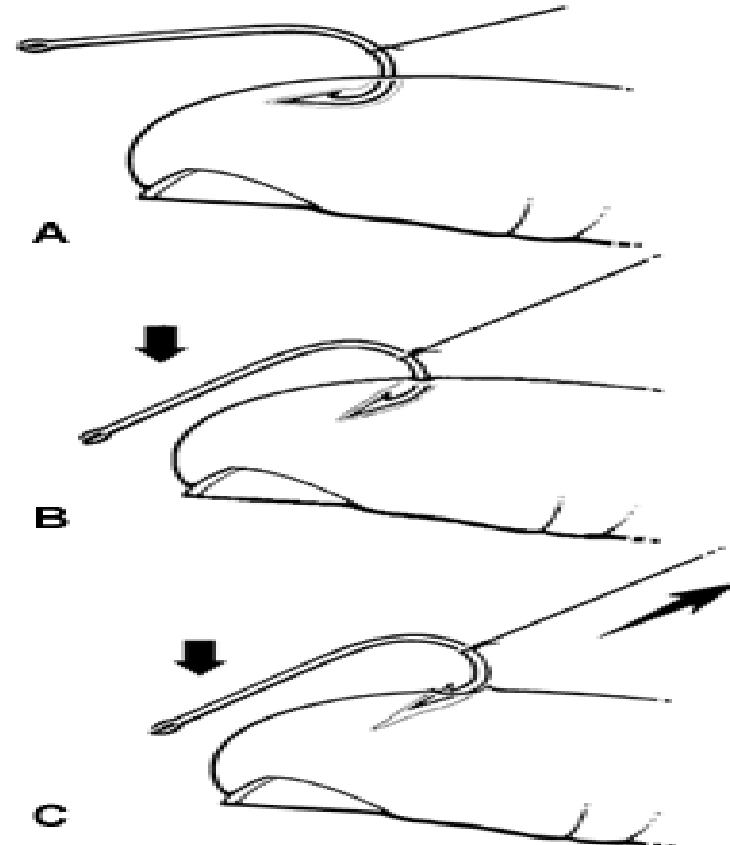
\*This technique has the lowest success rate



# String-Yank Technique

A string should be wrapped around the midpoint of the bend of the hook while holding onto the free ends of the string tightly. Depress the shaft of the hook and then give a quick yank on the string to dislodge the hook.

\*#1 method of removal due to no anesthesia used

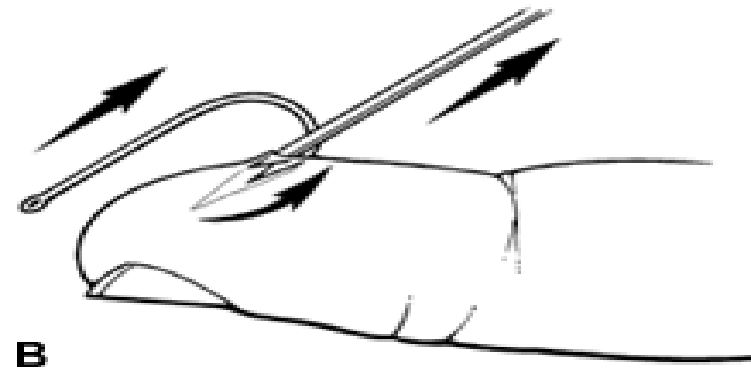
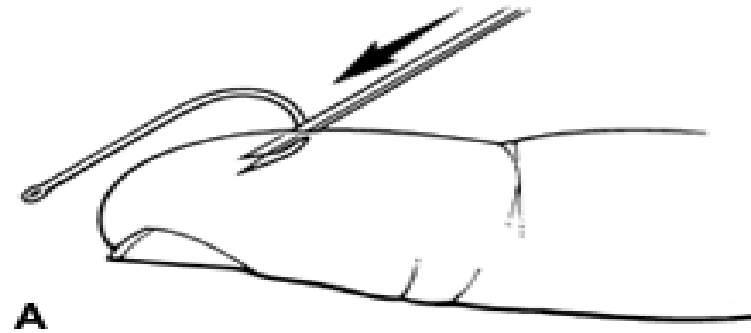


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# Needle Sheath Technique

Aka Needle Cover Technique

Locally anesthetize the area. Then use a 18 gauge needle and insert through the entrance of the hook trying to align the bevel of the needle with the hook. Once the hook is disengaged, back the hook out of the opening.



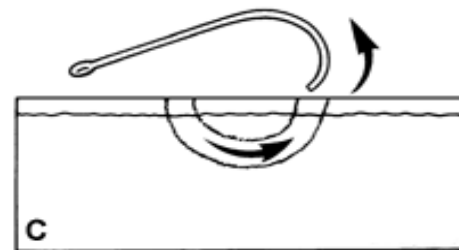
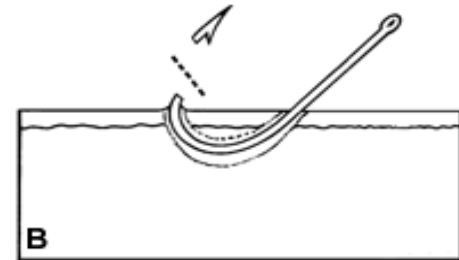
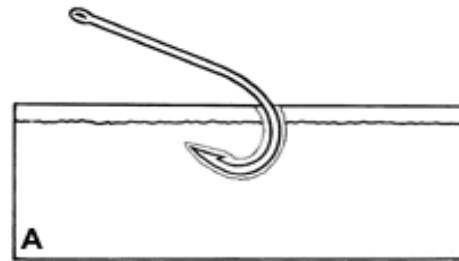
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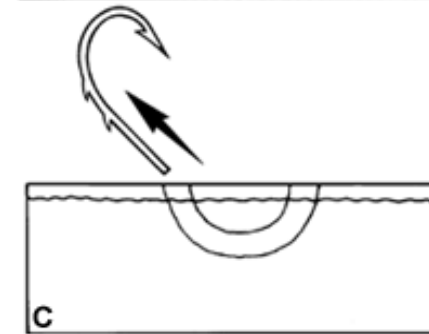
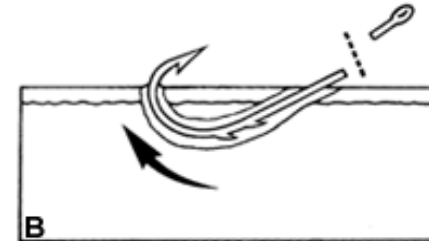
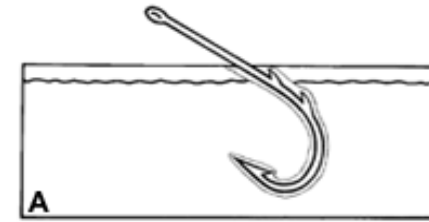
# Advance & Cut

Locally anesthetize the area. The fishhook is then advanced through the skin and the barb is cut off. Then the fishhook can be back out through the skin

Method of choice when dealing with multiple barbs on a single hook

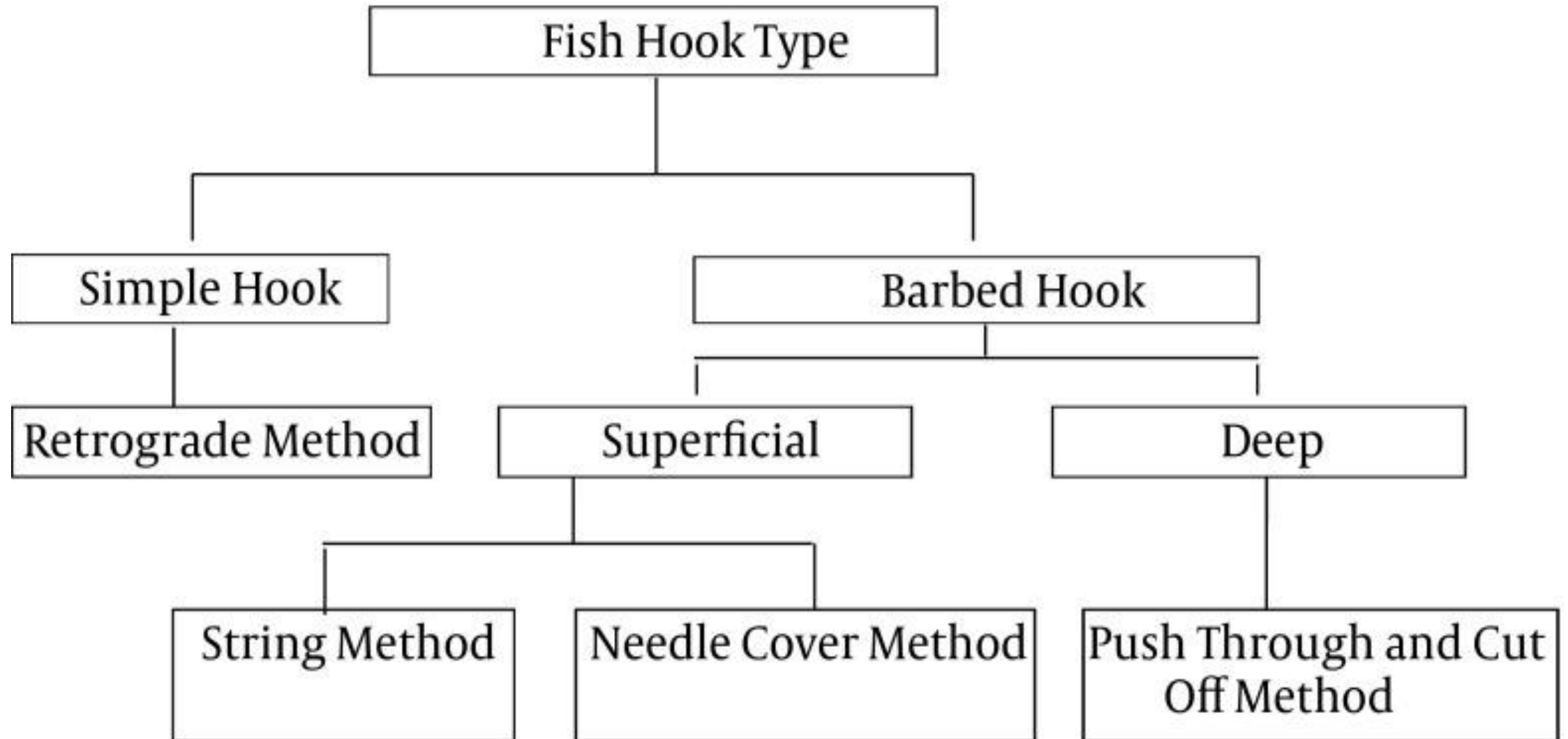


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# Hook Types and Removals



## Wound Care

- Always check for possible foreign body
- Clean area, apply ATB ointment and dressing
- Prophylactic oral ATB if immunocompromised or poor wound healing
- Tetanus administer if has been > 5yrs

# Foreign Body Removal

- Splinter



- Cactus Spine



# Diagnostic Tests for Detection of Foreign Bodies

<i>Material</i>	<i>Plain radiographs</i>	<i>High-resolution ultrasound scans</i>	<i>Xeroradiographs</i>	<i>CT scans</i>	<i>MRI</i>
Wood	Poor	Good	Superior to plain radiograph	Good	Good
Metal	Good	Good	Good	Good	Poor
Glass	Good	Good	Good	Good	Good
Organic (thorns, spines)	Poor	Good	Superior to plain radiograph	Good	Good
Plastic	Moderate		Superior to plain radiograph	Good	Good
Palm thorn	Poor	Moderate	Poor	Good	Good

# Types of Reactions to Retained Foreign Materials

<i>Type of material</i>	<i>Reaction severity</i>	<i>Reaction type</i>
Glass (uncontaminated)	Mild	Encapsulation
Blackthorns	Severe	Inflammatory reaction from alkaloids
Wood	Severe	Infection, inflammatory reaction from oils and resins
Cactus spines	Moderate to severe	Inflammation from fungal coating on the plant; delayed hypersensitivity reaction
Rose thorns	Moderate to severe	Inflammation from fungal coating on the plant
Sea urchins	Moderate to severe	Inflammation and infection; toxic and allergic reaction
Metal	Mild	Encapsulation
Plant spines (alkaloids)	Mild to severe	Toxic reaction
Animal spines	Mild to severe	Toxic reaction
Plastic	Mild	Encapsulation

# Splinter Removal Techniques for certain splinters

1. Superficial Horizontal Splinters
2. Vertical Splinters
3. Subungual Splinters



# Superficial Horizontal Splinters

First clean the area, then with tweezers pull exposed end of splinter out in the same angle that it went in.

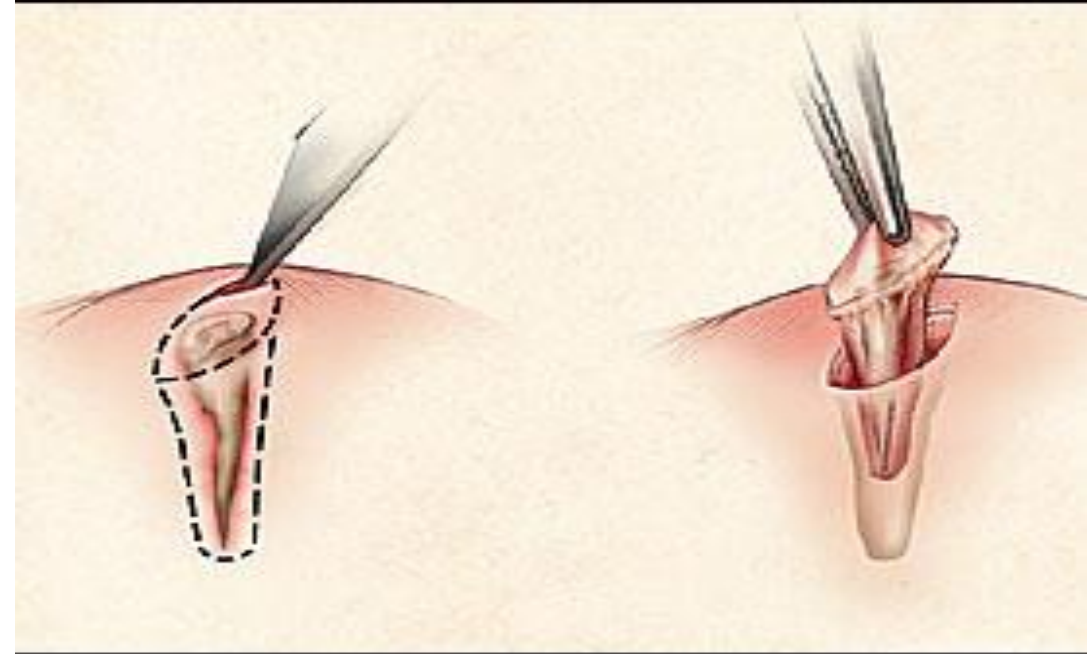
If unsuccessful with above technique, then incision will need to be made. Clean area with Betadine and anesthetize area with 1 % or 2 % lidocaine. Then use no. 10 scalpel blade to make an incision the length of the splinter to expose it. Then the splinter can be removed with tweezers.





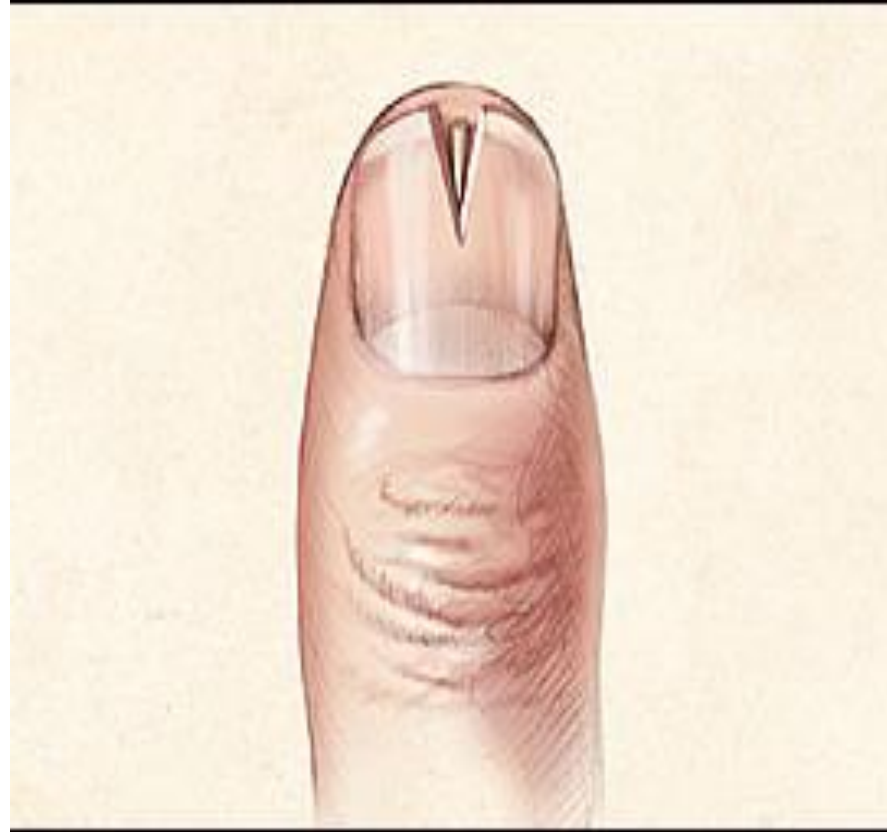
# Vertical Splinter

Clean and anesthetize the area, then make a superficial incision over splinter, followed by deeper incision around splinter. Encircling the splinter allows displacement of the splinter from the middle of the wound. Now the splinter can easily be pulled out with tweezers.



# Subungual Splinter

Clean the area, a digital block can be done to anesthetize the area. With strong scissors cut a V-shape in the nail to expose splinter. Remove the nail and carefully pull out the splinter with tweezers.



# Cactus Spine Removal

Most effective removal method is a combination of tweezers plus glue.

Use tweezers to pull clumps of cactus spines then apply thin layer of glue covered with gauze. After glue has dried, then peel off gauze to remove individual spines.



## Wound Care

- Tetanus if needed
- Clean area after splinter removal
- Removal of subungual splinter- occlusive dressing plus topical ATB ointment needs to be applied



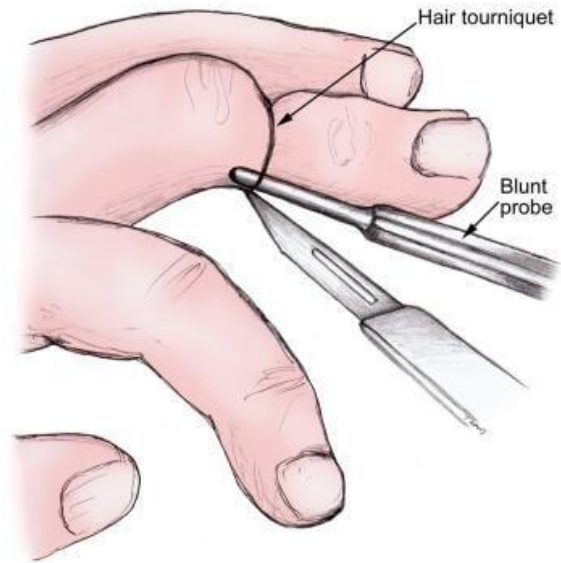
## d Tourniquet Syndrome

- Causes: mittens, socks, blanket threads, hair
- Happens to fingers, toes, genitalia to infants and kids
- Removal: Unwrapping Method- least invasive
- Chemical- depilatory method (Nair, Magic Shave, Veet) – noninvasive technique

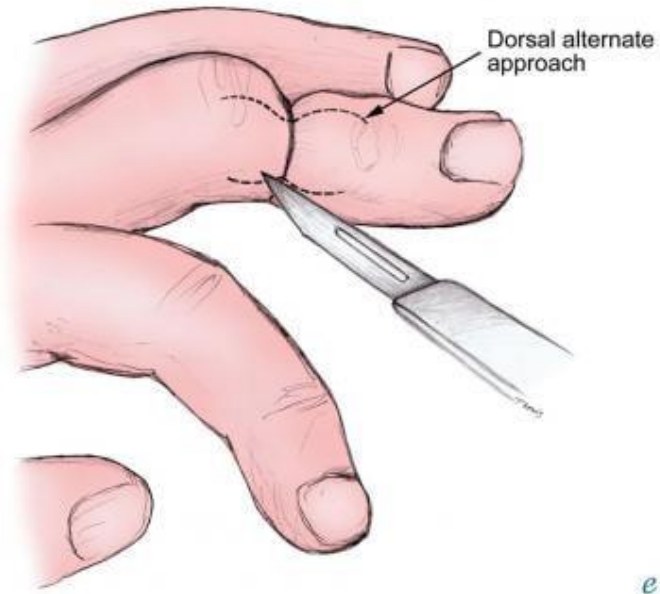
# Hair-Thread Tourniquet Syndrome

Mechanical Removal Method

Blunt Probe Method



Dorsal Slit technique



# Tick Removal



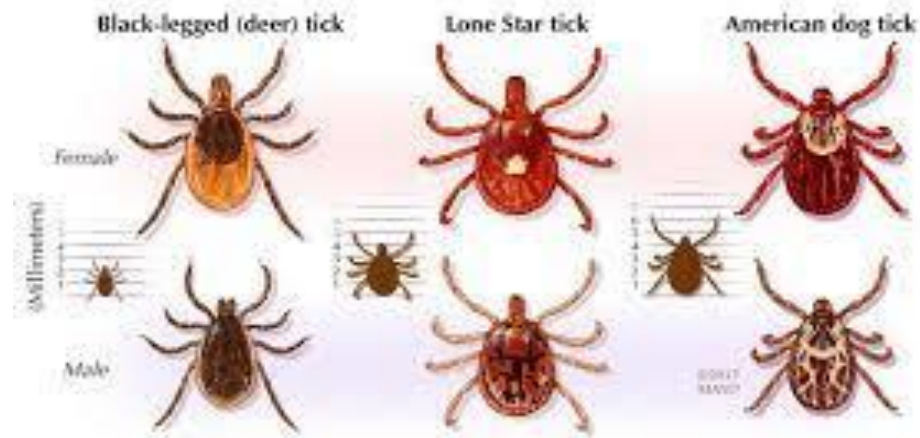
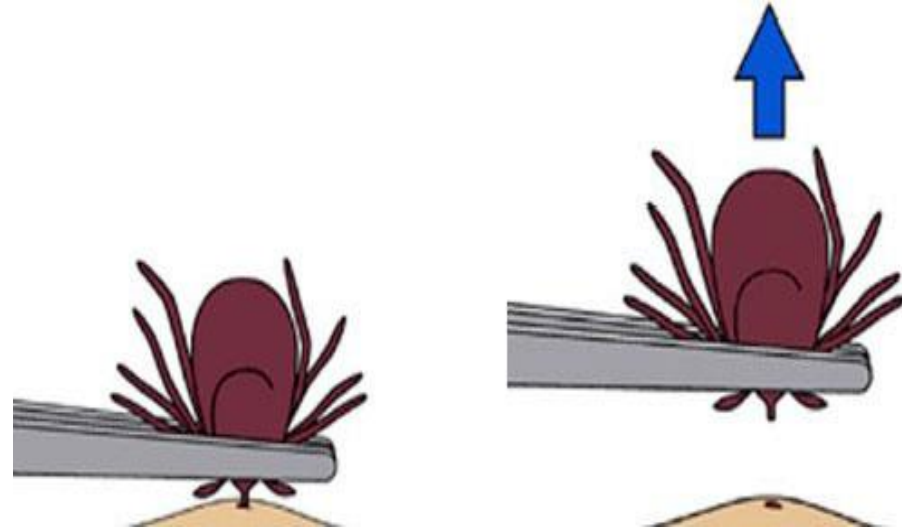


# Tick Removal

Use fine tweezers and place tweezers closest to skin, pull up fast and steady with tweezers (don't twist or jerk) to remove whole tick.

If some of the tick is still in skin, can remove with tweezers.

Dispose of tick in by placing it in alcohol, or flushing it down the toilet.

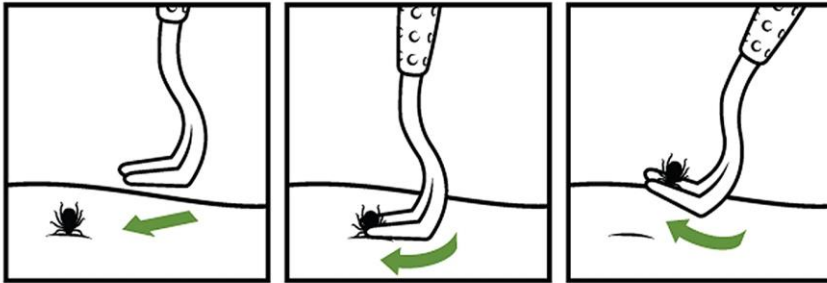




# Tick Removal



## TICK REMOVAL INSTRUCTIONS:



**SAFELY REMOVE** LARGE OR SMALL  
EMBEDDED TICKS

**SLIDE NOTCH** UNDER TICK AND GENTLY  
LIFT TICK OUT - DO NOT TWIST

**SAFE AND EFFECTIVE** FOR PEOPLE AND PETS



## CDC Guidelines

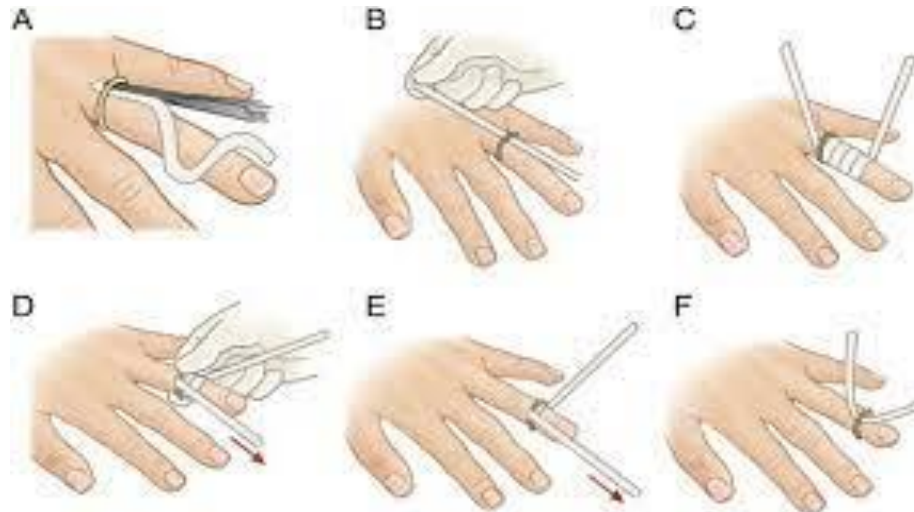
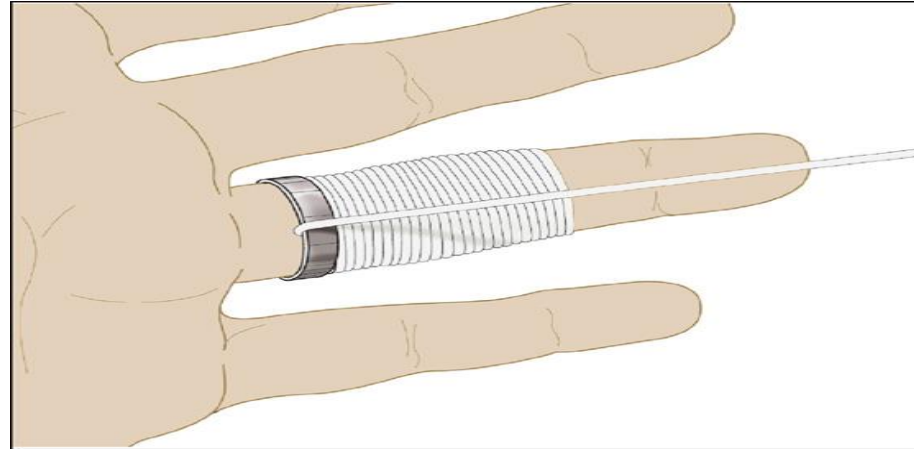
- Prophylaxis Treatment: Doxycycline 200mg one dose 1 day or 4.4mg/kg for children of any age weighing less than 45kg reduce the risk of Lyme Disease
- Treatment Lyme Disease: Doxycycline 100mg twice a day 10-14 days

# Ring Removal



# Ring Removal

- **String technique-** Pass one end of about 2 feet of string or thick silk suture between the ring and the finger. Use the tip of a hemostat under the ring to grasp the string and pull it through.
- **Start the wrapping:** Wrap the distal string snugly in a clockwise direction around the swollen finger, beginning at the palm end next to the ring and continue through to the tip, including the PIP joint and the entire swollen finger.
- Place successive loops of wrap right next to each other to keep any swollen tissue from bulging between the strands.
- Once the wrapping is complete, carefully unwind the proximal end of the string that is tucked under the ring in the same clockwise direction to force the ring over that portion of the finger that has been compressed by the wrap. The PIP joint is the area that is most difficult to maneuver over and causes the most pain.



## Ring Removal



- Wire Cutter- manually cut ring with wire ring cutter

# Foreign Body in Ear



Foreign Body in Ear

What is Strangest things you found in a patient's ear?

## Foreign Body Ear

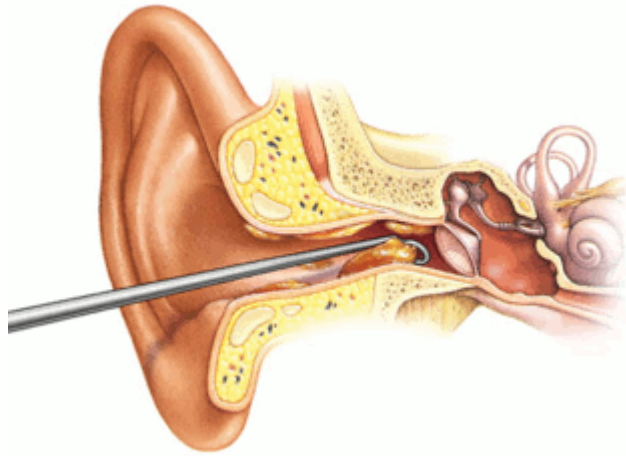
- Bugs- cockroach, maggots
- Tooth- the little girl said she "wanted to keep it in a safe place for the tooth fairy".
- Matchstick
- Barbie shoe



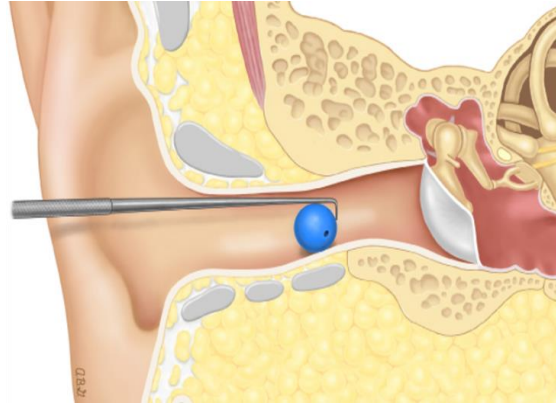
# Cerumen Impaction



- Ear Flush/Irrigation- a mixture of 50% water and 50% hydrogen peroxide is flushed in affected ear with a syringe
- Curettage is manual removal of cerumen with a plastic or metal curette



# Foreign Body in Ear



- Alligator forceps are good for removing hearing aids domes, insects, cotton balls, or any material that can be grasped with the teeth of this instrument
- Right Angle Hook is another instrument used to maneuver an object out of ear canal ex. Marble

## OPEN DOMES



SMALL (5MM)



MEDIUM (7MM)



LARGE (10MM)

## CLOSED DOMES



SMALL (5MM)



MEDIUM (7MM)



LARGE (10MM)

## POWER DOMES



(9MM)



(10MM)



(11MM)

# Foreign Body in Ear



- <https://www.youtube.com/watch?app=desktop&v=AiiRjhRvGBo>

## Foreign Body in Ear



- Ear wicks are used for AOE and placed in ear canal in medical office, most times these will fall out on their own and don't need to be removed



## Foreign Body in Nose



# Blow Technique



- Blow Technique or positive pressure technique – occluding the non-affected nostril and have them blow or

# Mother's Kiss

## **Procedure:**

- 1) Instruct the caregiver to place their mouth over the child's open mouth, forming a firm seal (similar to mouth-to-mouth resuscitation).
- 2) Next, occlude the unaffected nostril with a finger
- 3) The caregiver should blow until they feel resistance (caused by the closure of the child's glottis), then they should deliver a short puff of air into the child's mouth
- 4) The puff of air travels through the nasopharynx, and if successful results in the expulsion of the foreign body
- 5) If unsuccessful, the procedure can be repeated a number of times





Questions??





# References

Center for Disease Control and Prevention. (2022). Tick Removal.  
[https://www.cdc.gov/ticks/removing\\_a\\_tick.html](https://www.cdc.gov/ticks/removing_a_tick.html)

Chan, C. and Salam, G. (2003). Splinter Removal. American Family  
Physician, 25, 7-25-2.  
<https://www.aafp.org/pubs/afp/issues/2003/0615/p2557.html>

Fox, S. (2015). Hair Tourniquet. Pediatric Emergency Medicine  
Education. <https://pedemmorsels.com/hair-tourniquet/>

Gammons, M. and Jackson, E. (2001). Fishhook Removal. American  
Family Physician, 2231-2237.  
<https://www.aafp.org/pubs/afp/issues/2001/0601/p2231.html>

McCarter, D., Courtney, U., and Pollart, S. (2007). Cerumen Impaction.  
American Family Physician, 1523- 1528.  
<https://www.aafp.org/pubs/afp/issues/2007/0515/p1523.html>

Peach, M. (2020). The Mother's Kiss. Emergency Medicine Saint John.  
<https://sjrhem.ca/the-mothers-kiss/>