



# Maritime Health Trainings for Seafarers and Doctors

## «Minor surgical treatment (including technique of sewing and clamping)»

ERASMUS+ KA2 - Cooperation for Innovation and the Exchange of Good Practices  
KA202 - Strategic Partnerships for vocational education and training



REPUBLIC OF TURKEY  
MINISTRY OF HEALTH  
GENERAL DIRECTORATE OF HEALTH  
FOR BORDER AND COASTAL AREAS OF TURKEY



AP&A  
GROUP

## «Minor surgical treatment»

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### ✓ Learning Objective;

The aim of this section is to provide the knowledge necessary to give immediate response about minor **surgical treatments including technique of sewing and clamping**. Upon completion of this section, trainers will be able to:

- Explain what it is sewing
- Explain the goals of sewing
- Explain the situations that sewing should not be used
- Summarize the armamentarium of sewing
- How to perform a sewing
- How to remove sutures
- How to use adhesive skin closures

## What is sewing?

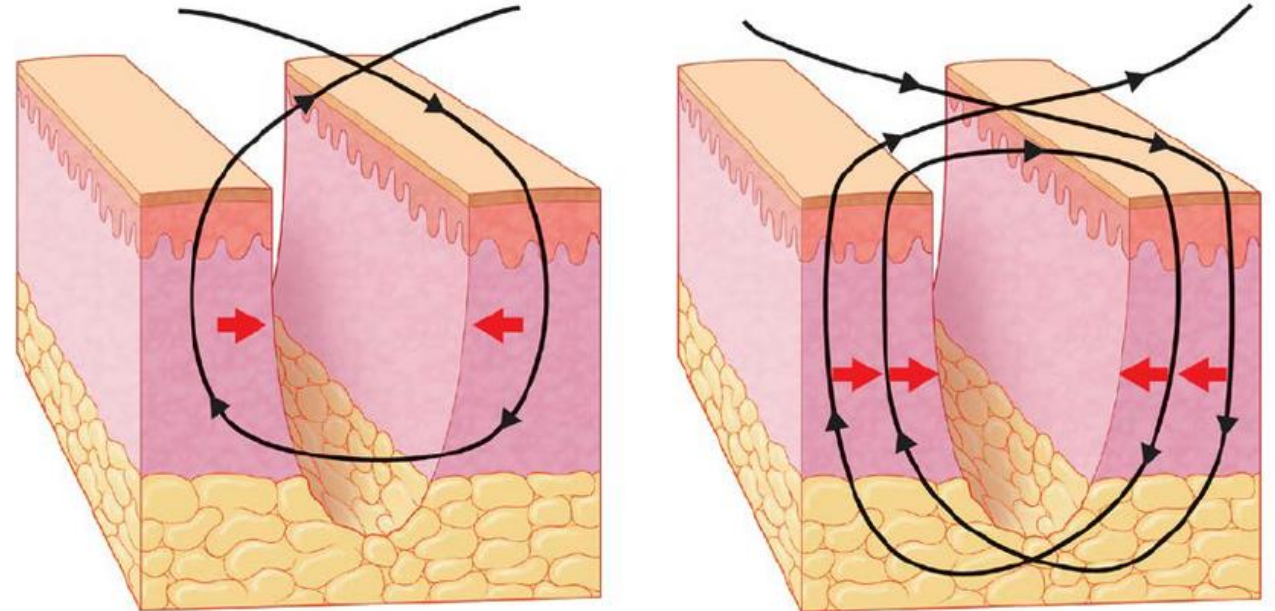
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- Sewing is a stitch or series of stitches made to secure apposition of the edges of a surgical or traumatic wound.



# Goals of Sewing

- Wound edge apposition
- Provide adequate tension
- Maintain hemostasis
- Aid in wound healing
- Avoid wound infection



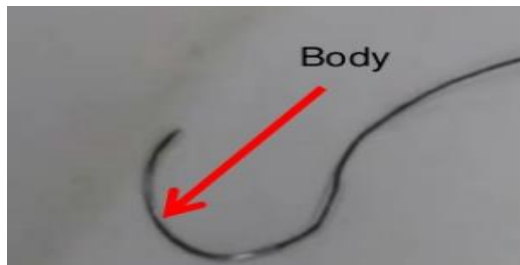
# Sewing Instruments

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**Needle holder:**



**Suturing needle:**



**Forcep:**



**Suture material:**



## Sewing Instruments

- ✓ **How to hold a needle holder?**
- The needle holder is held with thumb and ring finger through the rings and with the index finger along the length of needle holder to provide stability and control.

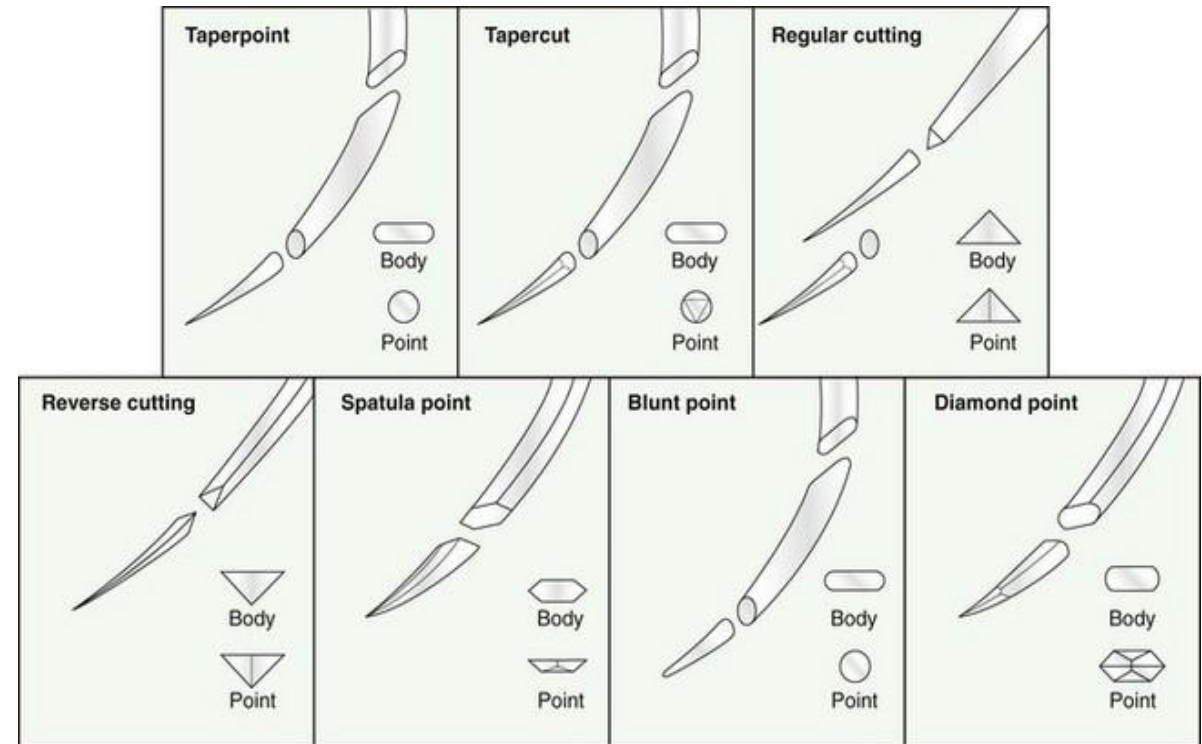


<https://www.youtube.com/watch?v=rJWNXlxixc0>

## Sewing Instruments

### ✓ Types of suture needle

- Suture needles for use in skin are curved, and triangular in cross-section, with one edge sharpened as a cutting edge; the two common types are:
- **“regular cutting needle”** which is best for relatively soft skin)
- **“reverse cutting needle”** which is best for thick skin, such on the soles of the feet.



## Sewing Instruments

✓ **How to choose a suture material?**

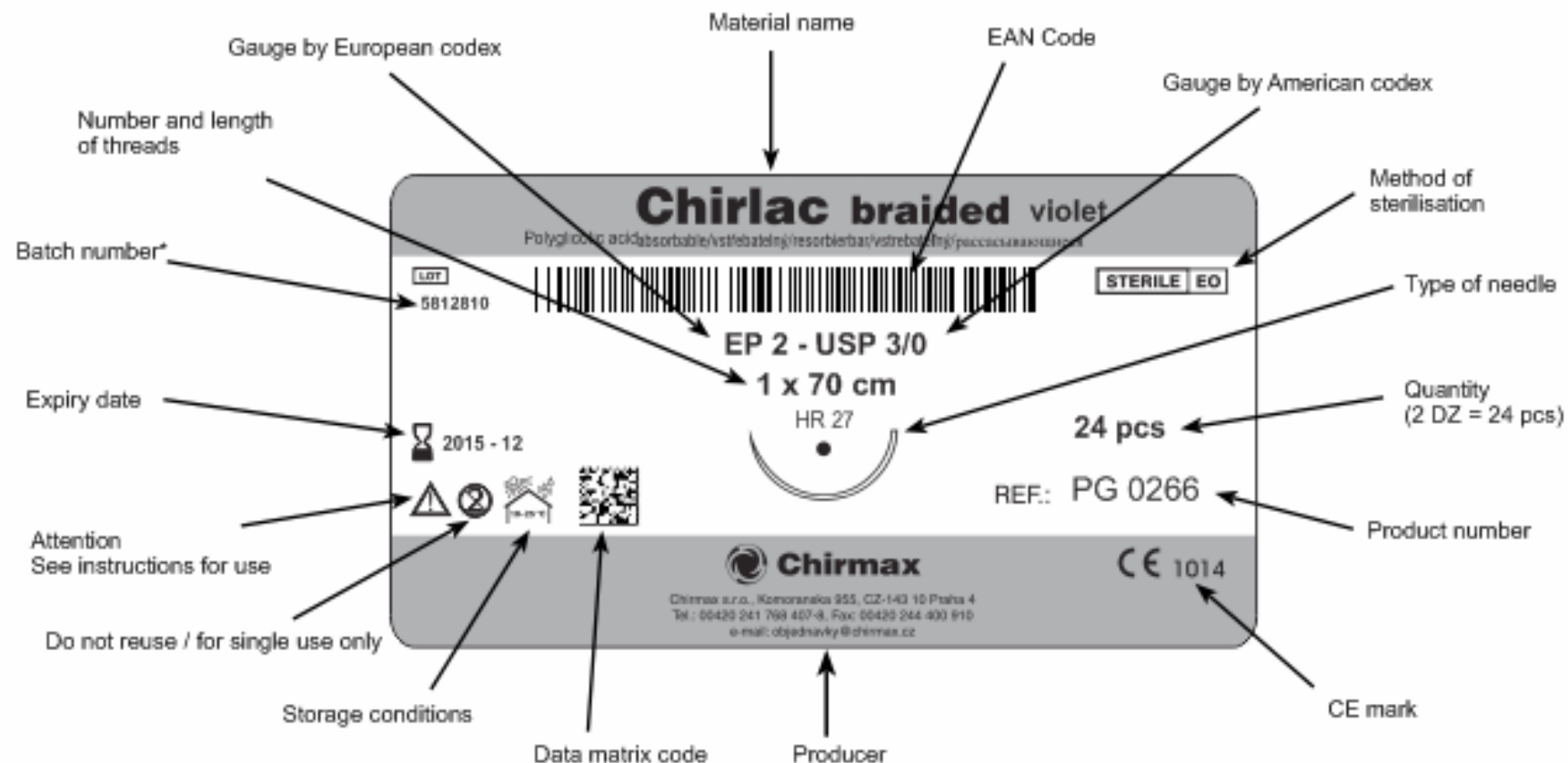
suture thickness is specified by the number on the packet:

- 1-0: thick; suitable for large scalp wounds;
- 3-0: suitable for most arm or leg wounds;
- 5-0: fine; suitable for face wounds in adults;

Area ↕	Size ↕	Type ↕	Days to Removal ↕
Scalp	Staples or 4-0 or 5-0	non absorbable	7
Ear	6-0	non absorbable	5-7
Eyelid	6-0 or 7-0	absorbable or nonabsorbable	5-7
Eyebrow	5-0 or 6-0	absorbable or nonabsorbable	5-7
Nose	6-0	absorbable or nonabsorbable	5-7
Lip	6-0	absorbable	NA
Oral mucosa	5-0	absorbable	NA
Other face / forehead	6-0	absorbable or nonabsorbable	5
Chest/abdomen	4-0 or 5-0	non absorbable	12-14
Back	4-0 or 5-0	non absorbable	7-10
Extremities	4-0 or 5-0	non absorbable	7-10
Hand	5-0	non absorbable	7-10
Foot / Sole	4-0	non absorbable	12-14
Joint (Extensor)	4-0	non absorbable	10-14
Joint (Flexor)	4-0	non absorbable	7-10



# Reading suture labels



## How to suture a wound?

- Sterilize the needle-holder, scissors, forceps, and kidney dish by boiling in water for 20 minutes.
- Place the sterilized needle-holder, forceps, and scissors in the kidney dish.
- Wash your hands.
- Put on clean gloves.
- Open the suture material packet and drop the needle and suture thread into the sterilized kidney dish.



<https://www.youtube.com/watch?v=z8oWv-nVO6g&vl=ar>

## How to suture a wound?



- The needle should be grasped in the holders, approximately one-third of its length away from the suture material.



## How to suture a wound?

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- Ensuring that the needle remains at right angles to the wound, follow the natural curve of the needle by rotating the wrist and move through each side of the wound separately.

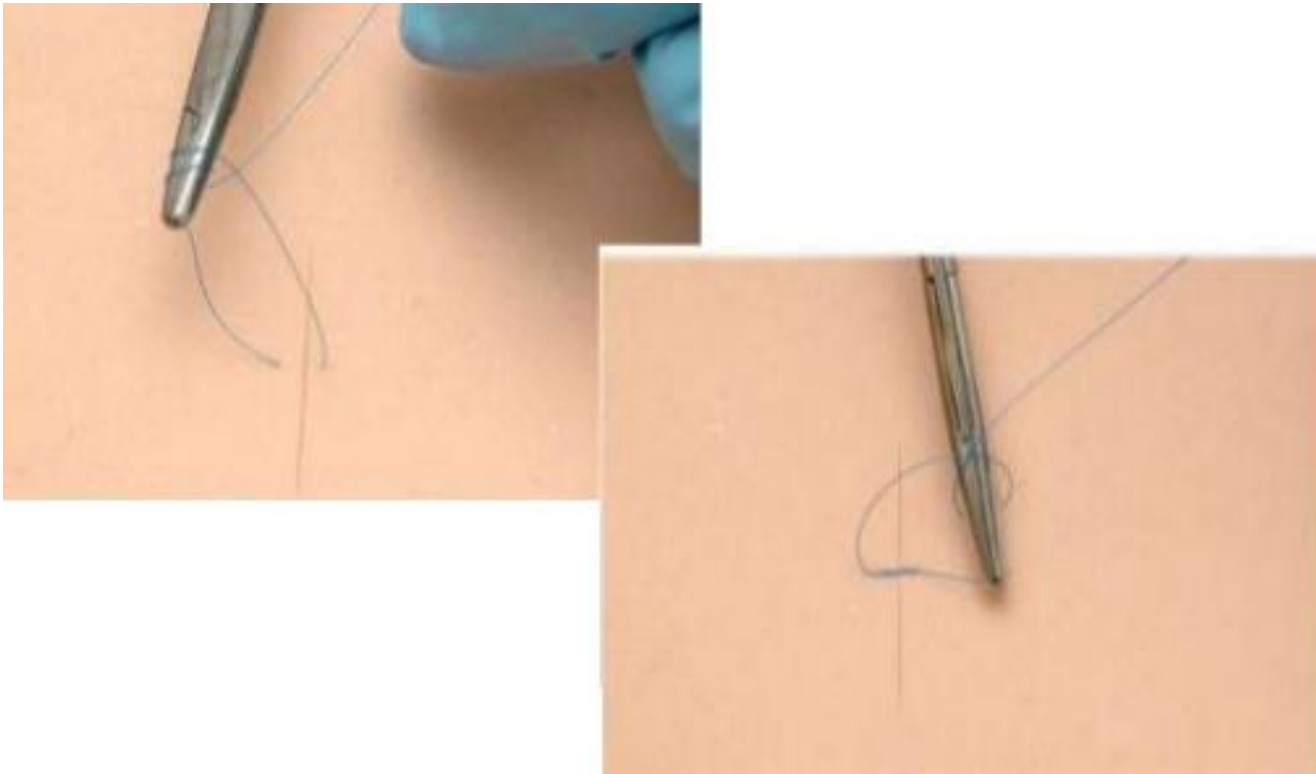
## How to suture a wound?

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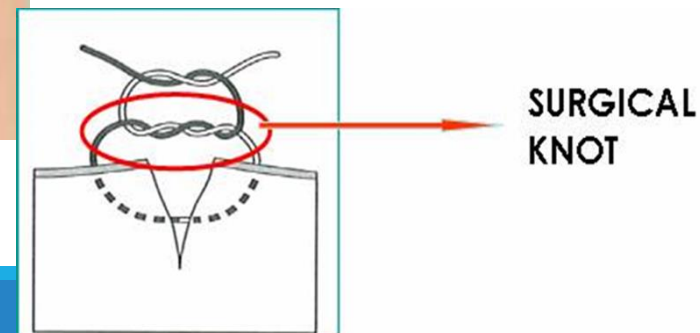
- When the needle emerges from the wound pull the suture through the tissues until a short tail remains at the initial skin entry side.
- Then enter the opposite side of the wound at the same depth as the first bite.



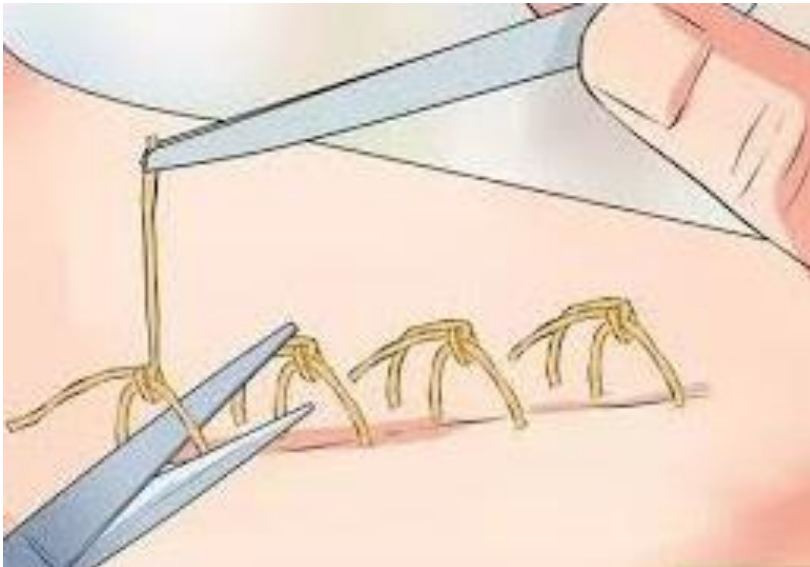
## How to suture a wound?



- To tie the suture, keep the needle holders parallel to the skin and grasp the needle end of the suture.
- Then make two clockwise loops around the needle holder, followed by a single anti-clockwise.



## How to remove sutures?



- ✓ **Remove sutures after:**
- five days, for wounds on the face;
  - seven days, for wounds on the scalp;
  - seven to 10 days, for wounds on other sites.

## How to use adhesive skin closures?

- With small, clean cuts you may be able to use “butterfly closures”, which consist of two adhesive patches joined by a narrow non-adhesive bridge



### ✓ What to do

- Make sure the edges of the wound are dry.
- Remove the butterfly closure from its envelope and strip off the protective backing.
- Bring the edges of the wound together by fixing the closure on either side of the wound so that the non-adhesive bridge lies across the wound.





# References

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- [1] World Health Organization. (2007). *International medical guide for ships: including the ship's medicine chest*. World Health Organization.
- [2] Schlaich, C., Reinke, A., Savenich, C., Reimer, T., Oldenburg, M., Baur, X., ... & Ioannidis, N. (2009). Guidance to the International Medical Guide for Ships 3 rd edition. *International maritime health*, 74, 328-328.
- [3] *American College of Emergency Physicians, First Aid Manual, 5 th edition (2014)*.