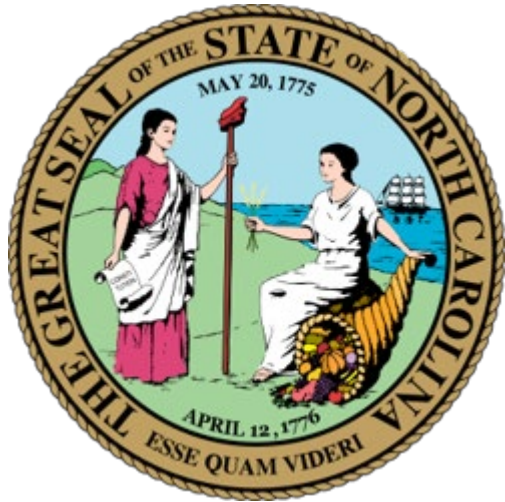


First Aid Kits



Note:

This presentation includes instructions on emergency use of ratcheting and windlass tourniquets. It is not a substitute for hands-on first aid training.

Anyone who reasonably expects to apply an emergency tourniquet should seek proper training from an accredited agency.



ANSI / ISEA Z-308.1-2021

- ANSI (American National Standards Institute) and ISEA (International Safety Equipment Association) jointly publish a standard named “American National Standard for Workplace First Aid Kits and Supplies”
- This standard lists the minimum items to be included in different classes of first aid kits
- OSHA references earlier versions of this standard in Federal law
- The 2015 standard was revised in 2021 and became effective October 15, 2022



First Aid Kit Maintenance

- Inspect contents monthly
- Replace items when used or damaged
- Replace items as they expire



Class A First Aid Kit Defined

“Class A kits are intended to provide a basic range of products to deal with most types of injuries encountered in the workplace including major wounds, minor wounds (cuts & abrasions), minor burns, and eye injuries.”

ANSI/ISEA Z-308.1-2021



Class B First Aid Kit Defined

“Class B kits are intended to provide broader range and quantity of supplies to deal with injuries encountered in more populated, complex and/or high-risk environments.”

ANSI/ISEA Z-308.1-2021



Which Kit do I Need?

- Class A kits are for low risk, low impact environments like offices
- Class B kits are for work sites that could have more severe injuries or require longer response times from EMS

ANSI/ISEA Z-308.1-2021



Minimum Contents per ANSI / ISEA

| SUPPLY | MINIMUM QUANTITY | | MINIMUM SIZE | |
|---|------------------|--------------|------------------|--------------------|
| | Class A Kits | Class B Kits | U.S. | Metric |
| Adhesive Bandages | 16 | 50 | 1 x 3 in. | 2.5 x 7.5 cm |
| Adhesive Tape | 1 | 2 | 2.5 yd. | 2.3 m |
| Antibiotic Application | 10 | 25 | 1/57 oz. | .5 g |
| Antiseptic | 10 | 50 | 1/57 oz. | .5 g |
| Breathing Barriers | 1 | 1 | - | - |
| Burn Dressings (Gel Soaked) | 1 | 2 | 4 x 4 in. | 10 x 10 cm |
| Burn Treatments | 10 | 25 | 1/32 oz. | .9 g |
| Cold Packs | 1 | 2 | 4 x 5 in. | 10 x 12.5 cm |
| Eye Covering (with Means of Attachment) | 2 | 2 | 2.9 sq. in. | 19 sq. cm |
| Eye/Skin Wash | 1 fl. oz. | 4 fl. oz. | - | 29.6 mL/ 118.3 mL |
| First Aid Guide | 1 | 1 | - | - |
| Hand Sanitizers | 6 | 10 | 1/32 oz. | .9 g |
| Medical Exam Gloves | 2 pairs | 4 pairs | - | - |
| Roller Bandages (2 in.) | 1 | 2 | 2 in. x 4 yd. | 5 cm X 3.66 m |
| Roller Bandages (4 in.) | 0 | 1 | 4 in. x 4 yd. | 10 cm x 3.66 m |
| Scissors | 1 | 1 | - | - |
| Splints | 0 | 1 | 4 x 24 in. | 10.2 x 61 cm |
| Sterile Pads | 2 | 4 | 3 x 3 in. | 7.5 x 7.5 cm |
| Tourniquets | 0 | 1 | 1 in. (width) | 2.5 cm (width) |
| Trauma Pads | 2 | 4 | 5 x 9 in. | 12.7 x 22.9 cm |
| Triangular Bandages | 1 | 2 | 40 x 40 x 56 in. | 101 x 101 x 142 cm |

What Changed?

- Class A kits must now contain a single use foil blanket
- Class B kits must now contain a foil blanket and tourniquet



Foil Blanket Requirement

- “A metalized plastic sheet, having a minimum size of 52 x 84 inches and shall be single use.”
- This item was added based on the multiple purposes it can serve during treatment of an injury or illness



Foil Blanket Use for First Aid

Reflect body heat to:

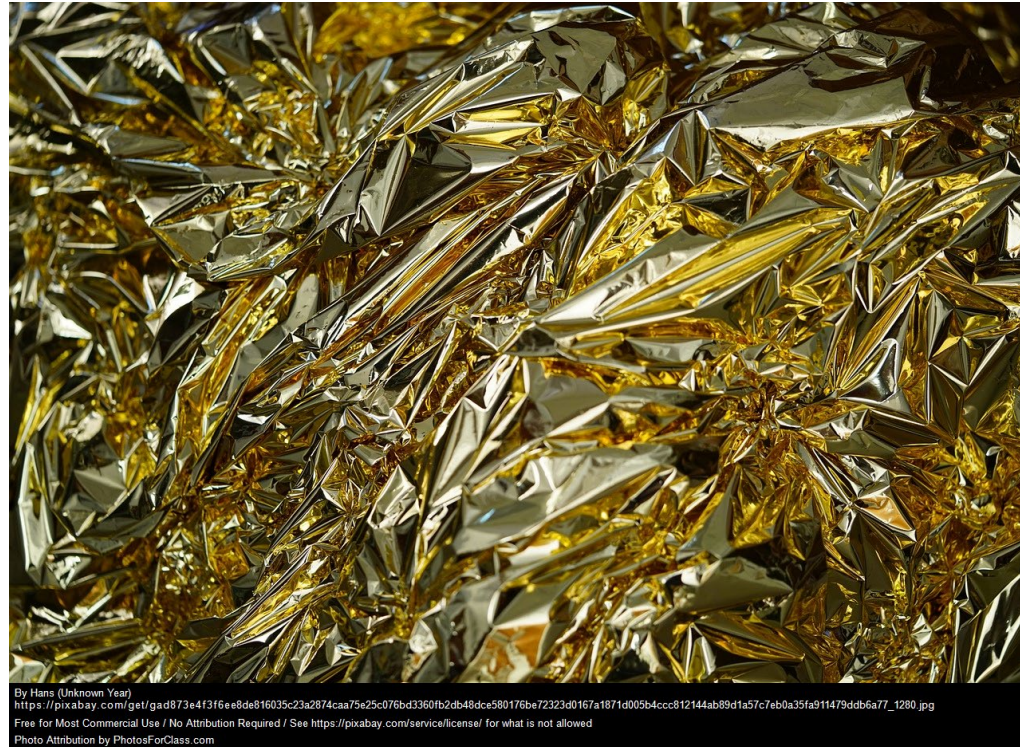
- Prevent or treat shock
- Prevent hypothermia

Can be used to improvise slings, tourniquets, compression bandages, or to tie off splints



Other Foil Blanket Uses

- Ground cloth
- Emergency shelter
- Emergency signaling
- Rain poncho
- Trail markers
- Water collection



What is a Tourniquet?

“A light, wide strap designed to be effective in preventing blood loss in a severely injured limb (arms, legs) by compressing the tissue around the arteries and providing effective occlusion within 90 seconds or less.”

ANSI/ISEA Z-308.1-2021



Why the Change?

- Older kits included silicone bands or tubing, like those used to draw blood
- Bands or tubing cannot stop arterial bleeding



Statistics

- Trauma is leading cause of death for Americans under 45 (CDC)
- Pre-hospital tourniquets can increase civilian survival rates by 600%*
- Losing 20% of your blood can result in irreversible brain, organ, limb damages, and death

*Teixeira PGR, Brown CVR, Emigh B, Long M, Foreman M, Eastridge B, Gale S, Truitt MS, Dissanaik S, Duane T, Holcomb J, Eastman A, Regner J; Texas Tourniquet Study Group. Civilian Prehospital Tourniquet Use Is Associated with Improved Survival in Patients with Peripheral Vascular Injury. *J Am Coll Surg*. 2018 May;226(5):769-776.e1. doi: 10.1016/j.jamcollsurg.2018.01.047. Epub 2018 Mar 29. PMID: 29605726.



First Aid Kit Tourniquet Requirements

- Shall be at least 1.5 inch wide
- Shall be effective on limbs ranging from 7 to 33 inches
- Shall use a ratchet or windlass to reach full occlusion
- Shall be individually packaged with instructions
- ANSI/ISEA Z-308.1-2021



Protect Yourself and Others:

- Use personal protective equipment available to you, especially gloves
- Avoid direct contact with blood or body fluids on your skin, eyes or mouth
- If you get blood on you clean it off as soon as possible
- Wash your hands after contact even if there is no visible blood
- Warn others who enter the scene when blood is present
- Once you reach a healthcare provider inform them if you were exposed to blood or body fluids



Stop the Bleeding

- Call 911
- Apply steady, firm pressure on the source of bleeding until first responders arrive
- If you can't control the bleeding with manual pressure, try packing the wound or apply a tourniquet
- Act quickly: Minutes Matter



General Tourniquet Use

- Try to stop bleeding with direct pressure first, or packing deep wounds
- Apply tourniquet directly to skin if possible but over clothes if necessary
- Apply tourniquet 2-3 inches above wound
- Do not apply tourniquets on top of elbows, knees, or neck
- Pull the tail end tight
- Tighten with windlass or ratchet just until blood flow stops and there is no distal pulse
- Record the time you apply the tourniquet



General Tourniquet Use

- Until very recently loosening a tourniquet every 15-20 minutes was considered best practice to allow some oxygen to tissues.
- Today, best practice is that once a tourniquet is applied it **is not** loosened until the source of bleeding can be stopped by some other means.



Distal Pulse

Definition: Pulse points farthest from the trunk of the body

Where are they located?

- Inner thumb side of the wrist (radial artery)
- Inner middle of the wrist (ulnar artery)
- On the top of the foot (dorsalis pedis)
- Behind the outer ankle (posterior tibial artery)



Distal Pulse

If a tourniquet is too loose it may only stop venous blood flow (blood flowing back to the heart)

Cutting off all blood flow to the extremity is important to stop external and internal bleeding



General Tourniquet Use

- Minutes Matter
- Tourniquets can usually remain in place safely for 2 hours
- Tourniquets left on too long can cause harm. This is why we record the time we apply one
- A second tourniquet may be used if needed to stop bleeding



Windlass Tourniquets

- Also called “Twist the Stick Tourniquets”
- They use a twisting motion to apply pressure
- Usually require two hands
- They are easy to improvise



Windlass Tourniquets

- Apply the tourniquet above the wound
- Pull tail end tight
- Twist windlass until bleeding stops and there is no distal pulse
- Lock windlass in place
- Record the time you apply tourniquet



Ratcheting Tourniquets

- Closed-loop system
- Uses a ratchet mechanism to achieve pressure
- One hand application is possible due to pull tabs
- May be more difficult to fine tune, especially to loosen



Be Familiar with your Tourniquet

- Read the instructions
- Inspect it periodically
- Practice using it
- Practice checking your own distal pulse



Other Resources

- **Stop the Bleed** is a grassroots national awareness campaign and call-to-action. Stop the Bleed encourages bystanders to become trained, equipped, and empowered to help in a bleeding emergency before professional help arrives
- **I recommend taking the Stop the Bleed Interactive Course** (appx. 25 minutes). Press control and click the link below:

[Stop the Bleed Interactive Course](#)

