

# Tourniquets: Lifesaving Tool or Last Resort?

## Materials Needed:

- Several strips of cloth (approx. 2-4 inches wide, like bandanas or torn sheets)
- A sturdy stick, pen, or similar object to act as a windlass
- A simulated limb (e.g., a pool noodle, rolled-up towel, or even your own thigh for \*placement practice only\* - **\*\*DO NOT TIGHTEN ON A REAL LIMB\*\***)
- A marker or pen
- A timer or clock
- Access to reliable first-aid resources (e.g., Red Cross or Stop the Bleed website)

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## Introduction: What is a Tourniquet?

Imagine a situation with severe bleeding from an arm or leg that won't stop, even when you press hard on it. In these rare, life-threatening situations, a tourniquet can be a critical tool. A tourniquet is essentially a tight band placed around a limb (arm or leg) to stop blood flow to a wound further down the limb. It works by compressing the blood vessels against the bone.

While commercial tourniquets are preferred and used by professionals (military, paramedics), knowing how to improvise one \*might\* be crucial in a dire emergency when help is delayed. However, it's vital to understand this is a LAST RESORT due to potential risks.

## When Should a Tourniquet Be Used? (The ONLY Time!)

Tourniquets are ONLY for life-threatening bleeding from a limb (arm or leg) that cannot be controlled by direct pressure. Think severe arterial bleeding (spurting blood) or massive hemorrhage from a major injury.

### Key conditions:

1. Bleeding is from an arm or leg.
2. Bleeding is severe and life-threatening (pooling blood, spurting blood, continuous heavy flow).
3. Direct pressure on the wound has failed to control the bleeding.
4. Professional help is not immediately available.

## When NOT to Use a Tourniquet:

- Minor bleeding.
- Bleeding that IS controlled by direct pressure.
- Bleeding from the head, neck, or torso (cannot apply a tourniquet here).
- As a first step – “ALWAYS try direct pressure first.”
- For snake bites (this is an outdated and harmful practice).

## Risks and Why It's a Last Resort:

Applying a tourniquet cuts off \*all\* blood flow beyond that point. This can lead to:

- Severe pain.
- Nerve damage.

- Muscle damage.
- Tissue death (necrosis).
- Potential loss of the limb if left on too long or applied incorrectly.

Because of these risks, it's only used when the alternative is likely death from blood loss.

## How to Apply an Improvised Tourniquet (Simulation Practice):

**\*\*IMPORTANT: Practice these steps on your simulated limb (pool noodle/towel) ONLY. Never tighten a practice tourniquet on a person or yourself.\*\***

1. **Call 911 (or your local emergency number) immediately!** This is the most critical step.
2. **Apply Direct Pressure:** Use gauze or a clean cloth to press firmly directly on the bleeding site. Don't give up on pressure too soon.
3. **If life-threatening bleeding continues: Choose the Tourniquet Site:** Place your cloth band 2-3 inches *above* the wound, closer to the torso. NEVER place it directly over the wound or on a joint (elbow/knee).
4. **Wrap and Tie:** Wrap the cloth band tightly around the limb twice and tie a basic half-knot (the first part of tying your shoes).
5. **Insert the Windlass:** Place your sturdy stick/pen (windlass) on top of the half-knot.
6. **Tie a Full Knot:** Tie a full knot over the windlass to secure it.
7. **Twist to Tighten:** Twist the windlass. This will tighten the band and compress the limb. Continue twisting ONLY until the severe bleeding stops. Do NOT overtighten unnecessarily.
8. **Secure the Windlass:** Secure the windlass in place so it doesn't unwind. You might tuck the ends under the band, tie it with another piece of cloth, or tape it if possible.
9. **Note the Time:** This is CRITICAL. Immediately write down the exact time the tourniquet was applied. Use a marker to write it on the patient's forehead or on a piece of tape stuck to them, or on the tourniquet itself. Example: "TK 14:30".
10. **Do NOT Cover:** Keep the tourniquet visible for emergency responders.
11. **Do NOT Loosen:** Once applied, leave the tourniquet in place. Only trained medical professionals should remove it. Keep the person warm.

## Activity: Practice Time!

Using your cloth strip, windlass, and simulated limb:

1. Practice placing the band in the correct location (2-3 inches above a pretend wound).
2. Practice tying the knots and inserting the windlass.
3. Practice tightening (just enough to see the concept - remember, no real tightening on a person).
4. Practice securing the windlass.
5. Practice noting the time clearly.

Discuss: Why is the time so important? Why not place it on a joint?

## Conclusion & Further Learning:

Tourniquets are powerful tools for extreme emergencies but carry significant risks. Knowing the very basics of improvisation is useful, but formal training is best. Consider looking into a "Stop the Bleed" course offered by various organizations. Remember: Direct pressure first, call for help immediately, and use a tourniquet ONLY as a last resort for life-threatening limb bleeding.