The 3 Preventable Causes of Death.

Decades of combat casualty research point to three injury patterns that kill people who could have survived. Uncontrolled bleeding is by far the biggest. The same patterns show up in civilian emergencies: car crashes, workplace incidents, school violence, kitchen and workshop injuries.

A bystander who can spot these three and act can be the difference between a survivor and a statistic. **Help can take many minutes to arrive. The injuries below can kill before it does.**

MASSIVE HEMORRHAGE 1

Arm, leg, groin, or armpit bleeding

KILLS IN

MINUTES

WHAT IT IS

A torn major artery in the thigh, arm, groin, or armpit can bleed enough to kill in minutes, often before EMS arrives.

WHAT IT LOOKS LIKE

Pulsating or spurting bright red blood. Soaked clothing. A pool forming faster than you can wipe it. The casualty going pale, confused, or drowsy.

M — In MARCH: **Massive hemorrhage**

AIRWAY OBSTRUCTION 2

Unconscious casualty, blocked airway

KILLS IN

MINUTES

WHAT IT IS

An unconscious casualty's tongue, blood, vomit, or facial trauma can block the airway. Without oxygen, brain injury can begin within minutes.

WHAT IT LOOKS LIKE

Unconscious casualty making snoring, gurgling, or no sounds. Visible facial trauma. No chest rise. Lips and skin turning blue.

A — In MARCH: **Airway**

TENSION PNEUMOTHORAX 3

Penetrating chest injury

KILLS IN

MINUTES

WHAT IT IS

Air leaks into the chest and can't get out. Pressure builds, collapses the lung, and squeezes the heart and large veins until blood can't return to the heart. Breathing and circulation both fail.

WHAT IT LOOKS LIKE

Any hole in the chest or back, between the neck and the belly button, bubbling or not. Breathing gets harder and faster. The casualty gets worse fast, even after the wound is covered. Bulging neck veins (not always visible).

R — In MARCH: **Respiration**

TURN OVER FOR WHAT TO DO

Sources: Butler FK et al., *Mil Med* 1996 (origin of TCCC); Eastridge BJ et al., *J Trauma Acute Care Surg* 2012 (4,596 U.S. battlefield deaths, Oct 2001–Jun 2011); TCCC Guidelines (CoTCCC).

What To Do.

Make sure it's safe for you. Call 911, or point at one person and tell them to call. Then treat in this order: bleeding, airway, breathing.

1 FOR MASSIVE HEMORRHAGE
TOURNIQUET

1. **HASTY** (under threat, or you can't find the source fast): **HIGH AND TIGHT**, as high on the limb as possible, over clothing.
2. **DELIBERATE** (safe, wound visible): bare skin, 2–3 in. above the wound. Lands on a joint? Go above the joint.
3. **NEVER** over a joint. Limbs only.
4. Tighten until bleeding stops (it will hurt). Still bleeding? Add a second one above it.
5. Write the time on it.
6. **DO NOT REMOVE.** Leave it for EMS and the ER.

Groin, armpit, neck? **PACK** it: gauze ball on the bleeding, fill every corner tight, press hard. Hemostatic: at least 3 min or per its package. Plain: at least 10 min. Best: until EMS takes over; if you can't, wrap it tight. Neck: pack carefully, never press the windpipe or wrap the neck. **Never pack the chest or belly.**

2 FOR AIRWAY OBSTRUCTION
RECOVERY POSITION

1. Check responsiveness and breathing.
2. Not breathing, or only gasping: call for an AED and start CPR.
3. Unresponsive but breathing: **ROLL** to recovery position. Crash or fall: roll head, neck, and body together.
4. Remove anything you can see in the mouth. No blind finger sweeps.
5. Trained only: insert an NPA.
6. Awake with face or mouth bleeding: let them sit up and lean forward.
7. Keep checking breathing until EMS arrives.

On their side, blood and vomit drain out of the mouth, and the tongue can't fall back and block the airway.

3 FOR CHEST WOUNDS
CHEST SEAL

1. Wipe the skin around the wound dry.
2. Apply a **VENTED** chest seal over the wound.
3. **CHECK** the back and armpits for a second hole. Seal every hole.
4. Awake: any position that helps them breathe, often sitting up. Unresponsive, breathing: recovery position, injured side down.
5. Breathing gets worse: lift one edge of the seal (**"burp"** it), then reseal.

A vented seal lets air out but not in. No seal? Have them cover the hole with their own hand, or tape something airtight over it (plastic wrap, a chip bag). Getting worse? Lift one edge to let air out.

WHAT YOU NEED TO CARRY

The minimum kit for civilian bystander response.

TOURNIQUET
CoTCCC-recommended: C-A-T Gen 7, SOF-T Wide, or SAM XT.

PACKING GAUZE
Hemostatic (e.g., QuikClot Combat Gauze) or plain, for wounds a tourniquet can't reach.

VENTED CHEST SEAL
Twin-pack: a penetrating wound often has a second hole. Seal every hole.

WRAP + BLANKET
A pressure wrap holds packing and frees your hands. A wool or multi-layer blanket: cold makes bleeding worse.

GET TRAINED

Take a hands-on bleeding control course.

Often free, about 90 minutes, at many hospitals, fire departments, and EMS agencies. Practice now, not for the first time on the day you need it.

GO DEEPER · FREE

The Trauma Brief + Field Guide

Two free PDFs: The Trauma Brief (the full doctrine and the kit for your role) and the Field Guide (your first 5 minutes in 65 emergencies).

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