EMT Trauma: Mechanism, Bleeding, Head, Chest and Spine

Mechanism clues, bleeding that will not stop, compensated shock, skull and chest pearls, spinal care when the routine fails, and dog bites

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MECHANISM CLUES

MECHANISM	LOOK FOR
Motorcycle laid down (lowside)	Down-side leg trapped under the bike, same-side arm braced; road rash
Over the handlebars or thrown	Head first: skull, face, brain, neck; outstretched wrists
Rider stopped by a collision	Pelvis into the fuel tank: pelvic ring and bladder
Child hit by a car	Femur (bumper), chest or abdomen (hood), head (ground): find one, look for all three
Shot in body armor, vest intact	Blunt injury under the vest: ribs, lung, kidney, spleen; take the vest off, examine the chest and transport (reasoned from reviews, not a guideline)

Kinematics, crash types and the full field triage list: see EMT: Soft-Tissue and Musculoskeletal Trauma.

BLEEDING THAT WILL NOT STOP

SITUATION	DO
Gauze lifted to check	Continuous firm pressure, no peeking; soaked gauze stays, add more on top; tourniquet only if steady pressure fails
Varicose vein, leg hanging down	Lie the patient down, raise the leg above the heart, press on the point, then pad and firm bandage; no band above it
Scalp over soft, depressed bone	Moist sterile dressing; classic teaching: gentle pressure around the edges only, never on the center; no firm pressure, packing or tight wrap over the fracture

COMPENSATED SHOCK

- Fast breathing with clear lungs, fast pulse, pale cool clammy skin, restlessness: early shock, not anxiety
- A normal BP does not rule shock out; hypotension comes late
- Pelvic or femur injury can hide a large volume of blood
- Heart rate above systolic BP is a red field triage criterion
- EMT: control bleeding, bind a suspected pelvis per protocol, keep warm, ALS, rapid transport

HEAD INJURY AT EMT SCOPE

- Gently palpate the skull; possible open skull wound: moist sterile dressing, no direct pressure
- High-flow oxygen; oral airway if needed; no nasal airway with facial injury or possible basilar skull fracture
- Bag only if oxygenation fails: adult 10/min, child 2–14 y 20/min, under 2 y 25/min, gently; never hyperventilate
- Prevent hypotension (adult SBP 110 or more); assume a neck injury
- Worsening: confusion, agitation, drowsiness, vomiting, severe headache
- Highest level of care: open or depressed skull fracture, penetrating head wound, P or U on AVPU

CHEST PEARLS

FINDING	MEANING AND ACTION
Flail segment stops sinking during bag-mask breaths	Effect of positive pressure, not healing: keep assisting
Stab wound at or below the nipple line	Chest and abdomen both possible; worsening breathing: vented seal, watch for tension
Suspected flail chest	Red field triage criterion: highest-level trauma center

Tension pneumothorax and the other chest killers: see Trauma: Primary and Secondary Survey.

SPINAL CARE WHEN THE ROUTINE FAILS

PROBLEM	DO
Pain or resistance while moving the head to neutral	Stop; hold and pad it where it is
No collar fits a small child	Manual stabilization, then towel rolls or IV bags beside the head
Full-face helmet blocks the airway	Two rescuers: one holds from above, the other takes jaw and occiput from below before the helmet moves (classic technique; local protocol governs)
Unstable, several long-bone fractures, long trip	Keep the padded long board and splint to it; leave now

Who needs SMR, collars and straps: see Spinal Motion Restriction.

DOG BITE

- Pressure and a clean dressing; closing the wound is not an EMT step (ACIP avoids suturing when possible)
- Dog's rabies vaccination unknown: same-day evaluation and health department risk assessment
- A healthy biting dog is confined and observed for 10 days; public health decides, not the EMT
- Refusing transport: explain rabies and infection risk, document, report per local rules

> **EXAM TIP** Exams: in a bite, the small wound is not the point; the exposure is.

Sources (17) are listed with links at medicbasics.com/sheets/emt-trauma-field-pearls.html. For education and exam preparation only. Not medical advice; follow current guidelines and your institution's protocols. Medic Basics is an independent study aid not affiliated with any certifying body.