APPALACHIAN TRADERS FIELD SERIES

FIRST AID FIELD GUIDE

WILDERNESS & OUTDOOR EMERGENCY PREPAREDNESS MANUAL

> **IMPORTANT MEDICAL DISCLAIMER:** This guide is for general educational and preparedness purposes only. It does not replace professional medical advice, diagnosis, treatment, or formal first-aid/CPR training. Always seek immediate care from professional medical personnel or emergency services (911 / Search & Rescue) in an emergency.

CHAPTER 1: FIRST AID BASICS & EMERGENCY ACTION

In any medical situation in the field, staying calm and structured saves lives. Follow the **3 P's**: Preserve life, Prevent condition from worsening, and Promote recovery.

The 3 C's Emergency Protocol

1. **1. CHECK the Scene:** Ensure safety for yourself before approaching. Look for environmental hazards (rockfalls, fire, high water, wildlife, power lines). Assess the mechanism of injury.
2. **2. CALL for Help:** Contact 911, dispatch Search & Rescue (SAR), or activate your satellite messenger (Garmin InReach, SPOT) if in a non-cell service area.
3. **3. CARE for Victim:** Render aid starting with life-threatening conditions (Airway, Breathing, Circulation, Bleeding).

Primary Patient Assessment (ABCDE)

- **A – Airway:** Ensure the airway is open and clear of obstructions.
- **B – Breathing:** Check if the patient is breathing normally (look, listen, feel for 10 seconds).
- **C – Circulation & Bleeding:** Check pulse and look for severe, life-threatening bleeding.
- **D – Disability / Spinal:** Check responsiveness (AVPU: Alert, Verbal, Pain, Unresponsive). Keep spine aligned if neck/head injury is suspected.
- **E – Exposure & Environment:** Protect the patient from cold, heat, wind, or wet ground. Keep them insulated.

CHAPTER 2: BUILDING A FIELD FIRST-AID KIT

Keep your kit packed in a waterproof dry bag or durable pouch. Store in an accessible outer pocket of your pack.

Essential Wound Care & Dressings

- ☐ Sterile gauze pads (4x4 inch)
- ☐ Non-adherent Telfa pads
- ☐ Conforming roller gauze bandage (2x)

Medications & Specialty Items

- ☐ Antiseptic wipes (Benzalkonium/alcohol)
- ☐ Triple antibiotic ointment
- ☐ Ibuprofen (Advil) / Acetaminophen (Tylenol)

- ☐ Adhesive bandages (assorted sizes)
- ☐ Butterfly closures / Steri-Strips
- ☐ Medical adhesive tape (cloth or paper)
- ☐ Elastic tensor bandage (3" or 4")
- ☐ Trauma shears (heavy duty)
- ☐ Tweezers (fine-tipped) & safety pins
- ☐ Antihistamine (Diphenhydramine / Benadryl)
- ☐ Loperamide (Anti-diarrheal)
- ☐ Hydrocortisone cream 1%
- ☐ Moleskin / Blister treatment pads
- ☐ Nitrile medical gloves (3 pairs)
- ☐ Commercial Tourniquet (CAT or SOFTT-W)
- ☐ Emergency thermal foil blanket

CHAPTER 3: HEAVY BLEEDING & HEMORRHAGE CONTROL

Uncontrolled severe bleeding can be fatal within minutes. Rapid action is critical.

CRITICAL BLEEDING ACTION PLAN

1. **Direct Pressure:** Apply immediate, firm, direct pressure over the wound using sterile gauze or a clean cloth.
2. **Maintain Pressure:** Hold hard pressure continuously for at least 10–15 minutes. Do not remove soaked gauze; add more dressings on top.
3. **Pressure Bandage:** Wrap firmly with an elastic or roller bandage to maintain pressure.
4. **Tourniquet (Limbs Only):** If severe arterial bleeding (bright red, spurting) on an arm or leg does not stop with direct pressure, apply a commercial tourniquet 2 to 3 inches above the wound (never over a joint). Tighten until bleeding stops completely. Note the exact application time on the band.

CHAPTER 4: WOUNDS & BLISTER CARE

Minor Cuts, Abrasions & Scrapes

1. Clean your hands or put on nitrile gloves.
2. Rinse the wound thoroughly with clean running water or sterile saline to remove dirt and debris.
3. Apply clean antibiotic ointment around the wound edges.
4. Cover with a sterile bandage or gauze pad; change daily or when wet.

Trail Blister Management

- **Hot Spots (Pre-blister):** Cover immediately with moleskin, leukotape, or duct tape to prevent friction.
- **Intact Blisters:** Leave unpopped if possible. Protect with a donut-shaped moleskin ring.
- **Popped / Open Blisters:** Wash with water, apply antiseptic cream, and cover with a sterile non-stick pad.

CHAPTER 5: BURNS

Burn Classification	Appearance	Field First Aid Action
1st Degree (Superficial)	Red skin, mild swelling, pain. No blisters.	Cool with cool running water for 10+ mins. Apply aloe or moisturizing lotion. Keep hydrated.
2nd Degree (Partial Thickness)	Redness, severe pain, active blistering, raw skin.	Cool with clean water. Do NOT pop blisters. Cover loosely with sterile non-stick bandage.

3rd Degree (Full Thickness)	White, charred, or leathery skin. Often painless due to destroyed nerve endings.	Do NOT apply water or ointment. Cover loosely with clean dry cloth/foil. Treat for shock and call SAR immediately.

CHAPTER 6: SPRAINS, STRAINS & FRACTURES

Sprains & Strains (R.I.C.E. Protocol)

- **R – Rest:** Stop movement immediately. Do not bear weight on the injured limb.
- **I – Ice / Cold:** Apply cold pack or cool spring water wrapped in cloth for 15–20 minutes.
- **C – Compress:** Wrap snugly with an elastic bandage from distal to proximal (below to above injury). Do not cut off circulation.
- **E – Elevate:** Raise the limb above heart level when resting to diminish swelling.

Fractures (Broken Bones)

- Do not try to force bone back into alignment unless circulation is completely absent and medical help is hours away.
- Immobilize the joint above and below the fracture site using a SAM splint, sturdy stick, or folded magazine secured with bandages or strips of cloth.
- Check distal circulation (pulse, warmth, sensation) before and after splinting.

CHAPTER 7: HEAD, NECK & SPINAL INJURIES

Suspect spinal injury if a patient fell from a height, suffered high-impact trauma, or lost consciousness.

SPINAL PRECAUTIONS

- **Stabilize:** Hold head and neck manually in neutral alignment. Do not let head twist or tilt.
- **Do Not Move:** Keep victim still unless immediate environmental danger threatens life (e.g., active rockfall or fire).
- **Monitor Responsiveness:** Check AVPU status continuously. Watch for vomiting (log-roll as a unified unit if necessary to prevent aspiration).

CHAPTER 8: CHOKING

Identify if airway obstruction is mild (can cough/speak) or severe (cannot speak, silent coughing, turning blue).

Abdominal Thrusts (Heimlich Maneuver - Conscious Adult)

1. Stand behind victim, wrap arms around waist.
2. Make a fist with one hand; place thumb side against abdomen just above navel and below ribcage.
3. Grasp fist with other hand and give quick, upward, inward thrusts until object dislodges or patient becomes unresponsive.

CHAPTER 9: CPR & AED BASICS

ADULT CPR QUICK GUIDE (HANDS-ONLY CPR FOR UNTRAINED)

1. **Verify Responsiveness:** Shout and tap shoulders. Check for breathing for 10 seconds.
2. **Call Emergency Services / Send for AED.**
3. **Chest Compressions:** Place heel of hand in center of chest (lower half of sternum). Interlock fingers. Push hard and fast (100–120 compressions per minute, 2 inches deep). Allow complete chest recoil.
4. **Rescue Breaths (Trained Rescuers):** 30 compressions followed by 2 rescue breaths.
5. **AED Use:** Turn on device and follow audio prompts immediately when available.

CHAPTER 10: HEAT & COLD EMERGENCIES

Condition	Key Symptoms	Field Treatment
Heat Exhaustion	Heavy sweating, pale skin, dizziness, headache, nausea.	Move to shade, loosen clothing, sip cold water/electrolytes, cool with wet cloths.
Heat Stroke (Lethal)	High body temp (>103°F), confusion, hot red dry/sweaty skin, altered mental state.	**Emergency!** Aggressive cooling: douse with cool water, ice packs in armpits/groin, fan vigorously. Evacuate immediately.
Hypothermia	Uncontrollable shivering, slurred speech, clumsiness ("umbles"), apathy.	Remove wet clothes. Wrap in thermal layers and space blanket. Give warm sweet drinks if conscious.
Frostbite	Numbness, waxy white/yellowish skin, hard tissue.	Rewarm gently in warm water (100–104°F). Do NOT rub snow or massage frozen tissue. Protect rewarmed skin.

CHAPTER 11: BITES, STINGS & WILDLIFE ENCOUNTER

- **Bee / Wasp Stings:** Scrape sting mechanism out (don't squeeze). Apply cold ice pack. Give antihistamine if mild allergic reaction occurs.
- **Tick Bites:** Grasp tick close to skin with fine tweezers; pull straight out steadily. Clean area. Watch for Lyme disease expanding ring rash ("bullseye").
- **Pit Viper / Venomous Snake Bites:** Keep patient calm and immobilized. Position bitten limb below heart level. Wash bite zone. *DO NOT cut wound, suck venom, or apply tourniquet/ice.* Evacuate quickly.

CHAPTER 12: ALLERGIC REACTIONS & ANAPHYLAXIS

Anaphylaxis is a severe, rapid, life-threatening allergic reaction impacting respiration and circulation.

ANAPHYLAXIS EMERGENCY STEPS

- **Signs:** Hives, facial/tongue swelling, tightness in throat, difficulty breathing, fast pulse, dizziness.
- **Administer Epinephrine:** Inject Auto-Injector (EpiPen) into outer mid-thigh. Hold firmly in place for 3–10 seconds (per device directions).
- **Positioning:** Sit patient up if breathing is difficult, or lay flat with legs elevated if dizzy.
- **Evacuate:** Effects of EpiPen can wear off in 15–20 minutes. Immediate SAR / EMS transport is mandatory.

CHAPTER 13 & 14: POISONING & SHOCK MANAGEMENT

Poisoning

- **Ingested:** Identify substance. Call Poison Control (1-800-222-1222) if reachable. Do not induce vomiting unless specifically instructed by medical professionals.
- **Plant Contact (Poison Ivy/Oak):** Wash skin thoroughly with Tecnu or dish detergent and cool water within 30 minutes of contact. Clean contaminated clothing.

Shock Protocol

Shock is life-threatening loss of blood flow to vital organs. Symptoms include pale, cold, clammy skin, weak fast pulse, rapid breathing, and confusion.

☐ Lay patient flat on back (elevate legs 8–12 inches unless spinal/leg injury is suspected).

☐ Keep patient warm with blankets/thermal layers.

☐ Do not offer food or drink.

☐ Monitor vitals until SAR/EMS arrives.

CHAPTER 15 & 16: WILDERNESS FIRST AID & MEDICAL EVACUATION

Wilderness Care Principles

- Expect delayed help: Be prepared to manage conditions for 12–48 hours.
- Hypothermia Prevention: Always insulate injured patients from cold ground using foam pads or dry clothing.
- Hydration & Nutrition: Keep non-head-injured, conscious patients hydrated with clean filtered water.

When to Seek Immediate Medical Care / Emergency Evacuation

RED FLAG EVACUATION INDICATORS

- Unconsciousness, altered mental state, or persistent severe headache.
- Uncontrolled bleeding or tourniquet application.
- Shortness of breath, chest pain, or suspected anaphylaxis.
- Suspected fracture of femur, pelvis, spine, or open fractures.
- Snakebites or severe frostbite/heat stroke.
- Inability to walk or self-evacuate safely due to injury/illness.