

Basic First Aid for Alaskan Trails



A mini-course EduVent sponsored by GeocacheAlaska! Inc. - 2018

Basic First Aid EduVent

- First Aid Kits
- Assessing Injuries & Medical Problems
- Trauma Management
- Minor Wound Management
- Musculoskeletal Injuries
- Cold Water Immersion & Hypothermia
- Medical Emergencies



This is ***NOT*** a certification class!

Consider taking regular First Aid & CPR Classes every other year

First Aid Kits



How Great is Your First Aid Kit?



First Aid Kits

- ❖ **Check & Restock at least Annually!**
- ❖ Waterproof container – Sized to your available space & weight
- ❖ Organized by Use Category
- ❖ Individual pouches for rapid access
- ❖ Consider separate kit for daily use items
- ❖ Ziploc bags for regularly accessed items
- ❖ Vacuum pack single-use and sterile supplies
- ❖ Trauma Emergency supplies
- ❖ Medical Emergency supplies
- ❖ General Tools & Medical Instruments
- ❖ Medications – Airtight & Lightproof
- ❖ Minor Wound Management supplies



First Aid Kits

❖ Trauma Emergency Supplies:

- ❖ Bleeding Control – Bulky Dressings
- ❖ Sterile Trauma Pads & Dressings
- ❖ Sterile Gauze Wraps & Medical Tape
- ❖ Coban, Vet Wrap, Cohesive Bandage
- ❖ Tourniquets – C-A-T Tourniquet
- ❖ Quik-Clot Hemostatic Dressings
- ❖ Chitosan Hemostatic Dressings
- ❖ Combat Gauze
- ❖ Triangular Bandages
- ❖ Splinting Materials, SAM Splint



First Aid Kits

❖ Medical Emergency Supplies:

❖ Pocket Mask, Micro-Shield, or similar CPR Breathing Device

❖ Oral Airway Set (helps rescue breathing)



❖ Aspirin, chewable or without enteric coating (Heart Attack)

❖ Benadryl (diphenhydramine), liquid or chewable (Allergy)

❖ EPI Pen, if there is history of anaphylaxis [Doctor's Rx Required]

❖ Glucose gel (preferred) or glucose tablets (Diabetes)

❖ Acetaminophen (Tylenol)



❖ Ibuprofen (Advil, Motrin)

❖ Blood Pressure Cuff (or Auto BP arm cuff)

❖ Stethoscope (required with manual BP cuff)



❖ Nitrile Gloves



First Aid Kits

❖ Tools, Instruments, and general Wound Management:

❖ Small Flashlight, LED, with fresh batteries

❖ Splinter Tweezers, magnifying glass

❖ EMT Trauma Shears & Bandage Scissors

❖ Hemostats and Forceps

❖ Antibiotic Ointment (Neosporin, Bacitracin)

❖ 20mL Syringe, sterile, for wound irrigation

❖ Chlorhexidine Antiseptic (Hibiclens)

❖ Superglue, single-use vials

❖ Steri-Strips or Butterfly Band-Aids

❖ Skin Stapler, sterile, single-use package



Responding to an Emergency



- **Check** the area for safety hazards, find out what happened, determine medical or trauma, get supplies, and call resources.
- **Check** the victim for Level of Consciousness, Airway, Breathing, Circulation and Bleeding. Do this quickly and fix critical problems when found!
- **Call** for a **HELP** via phone to 9-1-1, or send someone to relay for help, or activate an emergency beacon.
- **Care** for all life-threatening problems. Reassess frequently. Treat for SHOCK!



Patient Assessment

- ✓ **If the “Initial Assessment” reveals no life threats:**
- ✓ **Look for bleeding, wounds, bruising, & “hurts”**
- ✓ **Talk to the patient! Ask them what’s injured**
- ✓ **Monitor mental functions frequently**
- ✓ **Check mechanical function of arms and legs**
- ✓ **Can they feel with and move their fingers and toes?**
- ✓ **Check pulse, capillary refill, breathing, & BP**

Bleeding Control

- If you see blood, determine how fast it is coming out of the body and then **STOP** it!
 - Arterial bleeding – Rapid, Pulsating Flow
 - Venous bleeding – Steady, Constant Flow
 - Capillary bleeding – Seeping or Dripping



Bleeding Control

- **Arterial Bleeding is immediately life threatening! Control serious bleeding immediately and always treat for Shock**
 - **Direct Pressure**
 - **Pressure Dressing**
 - **Tourniquets**
 - **Hemostatic Agents**



C-A-T Tourniquet



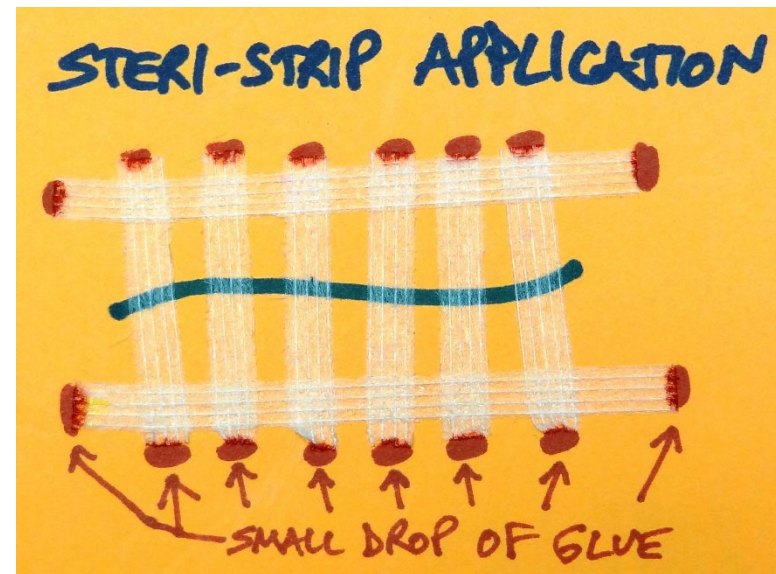
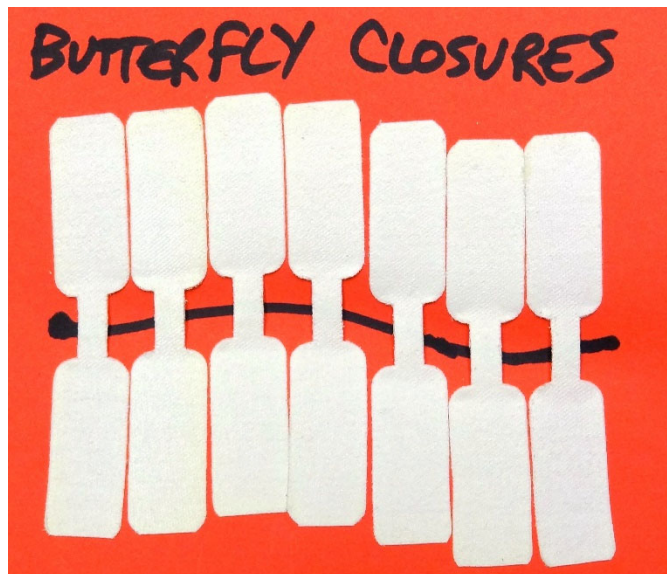
C-A-T Tourniquet is available from www.NARescue.com

Bleeding Control

- ❖ If internal bleeding is suspected, treat for shock and advise medical responders. Rapid transport needed!
- ❖ If there is an impaled object, leave it in place, stabilize it, and control bleeding around the entrance and exit points.
- ❖ Treat for Shock and reassess often.

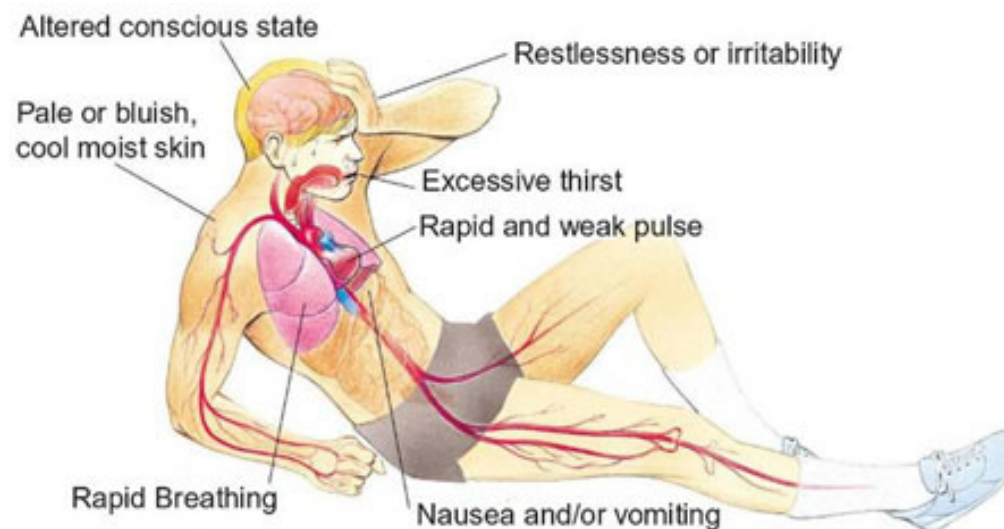
Minor Laceration Closure

- ❖ Control bleeding first
- ❖ Clean wound by flushing with pressurized, clean water via a syringe or bottle with a nozzle (eye wash)
- ❖ Pat dry and close with Butterfly band-aids or Steri-Strips
- ❖ Secure band-aids to the good skin with superglue
- ❖ Cover laceration with antibiotic ointment, top with a sterile gauze pad or dressing and then protect with Coban wrap



SHOCK

- ❖ Shock is a life threatening condition caused by a lack of oxygen to the cells
- ❖ Many injuries or medical conditions can cause shock, so expect it to develop and treat for Shock before there are signs
- ❖ Signs of shock are delayed! If you see the signs, you are behind in treatment; don't delay!



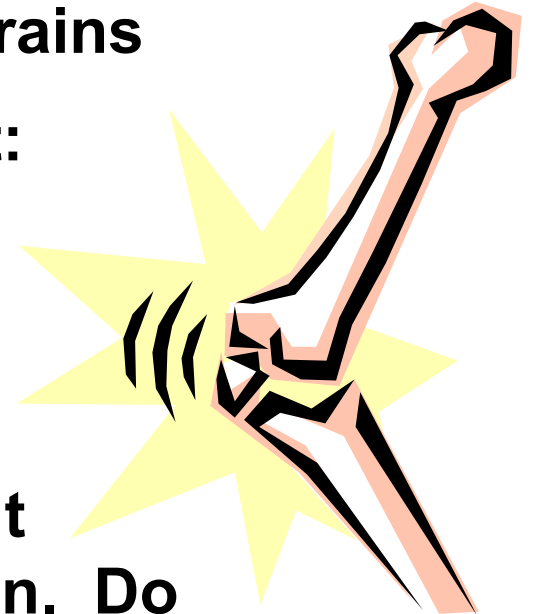
Treating Shock

- ❖ **Keep Calm – Both YOU and the patient!**
- ❖ **Control ABC's and all Bleeding**
- ❖ **Keep the patient warm – Insulate under & over**
- ❖ **Elevate legs about 12". Do this only if you suspect no leg or back injuries.**
- ❖ **Give nothing by mouth**
- ❖ **Rapid transport**

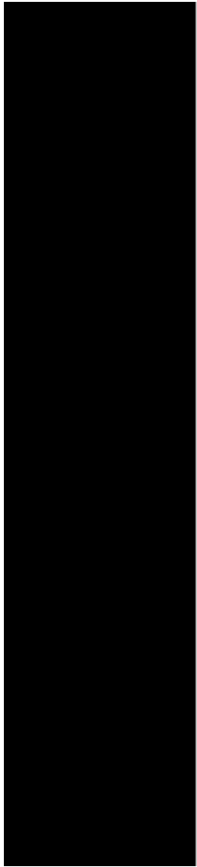


Fractures & Splinting

- ❖ Fracture vs. Dislocation vs. Sprains/Strains
- ❖ Use materials that you have as a splint:
 - Pad the splint
 - Splint in the position it's found
 - Immobilize joints above and below
- ❖ Loosen splint if victim complains about tightness, or shows a lack of circulation. Do not remove it. Check circulation often.
- ❖ **NEVER** try and set the bone, or push the bone back into the wound.
- ❖ Use Cold Pack on the injury site



Fractures & Splinting



SAM Splint Demonstrations Video

Cold Injuries

❖ Cold Water Near Drowning

❖ Hypothermia

❖ Cooling of the body core

❖ Frostbite

❖ Freezing of the skin



Cold Water Near Drowning

❖ 1-10-1 Principle:

- ❖ You have 1 minute to get breathing under control
- ❖ You have 10 minutes to self-rescue
- ❖ You have 1 hour to live



- ❖ Most cold water drowning fatalities are due to Swim Failure, NOT Hypothermia
- ❖ Even a great swimmer cannot swim more than about 5 minutes in Ice Water (32°F)
- ❖ Rapid Rescue is Critical

Cold Water Near Drowning

- ❖ If the patient has drowned, you may still have an hour (or more) to rescue and start CPR
- ❖ There are numerous documented cases of cold water drowning victims who have been successfully resuscitated after extended submersion in very cold water
- ❖ An anecdotal rule of cold water drowning states that they are not dead until they are “warm and dead”, following hospital rewarming
- ❖ CPR should be continued through transport



Hypothermia Treatment

- ❖ Treat patient gently at all times
- ❖ Stop heat loss – Remove wet clothing –
Insulate from the cold – Move to warmer area
- ❖ If conscious, alert, and shivering, exercise and warm food & drink is recommended to rewarm
- ❖ If altered consciousness, use core rewarming techniques such as warm packs to arm pits, sides, and neck
- ❖ NEVER give alcohol or allow patient to smoke



Frostbite Treatment

- ❖ Look for and treat Hypothermia as needed
- ❖ Stop heat loss – Remove wet clothing – Insulate from the cold – Move to warmer area
- ❖ Do not thaw frozen extremities if there is a chance of refreezing before getting to the hospital for proper treatment
- ❖ Consult with medical professionals or the State of Alaska Cold Injury Guidelines for detailed thawing and rewarming procedures



Medical Emergencies

- **Assessing Medical Problems is like trying to find a mystery cache – You must solve the puzzle first**
- **What is the Chief Complaint?**
- **How did it start? When? Associated symptoms?**
- **Has this happened before? Medical history?**
- **If you can't figure out exactly what is going on, treat for Shock and get Medical Help!**
- **Any compromise of the airway, breathing, or circulatory system or an altered level of consciousness is a true 9-1-1 Emergency!**

The Unresponsive Patient

CALL FOR HELP!

Check for Responsiveness

Look for Signs of Circulation

If none, start CPR with Chest Compressions at a rate of 100 per minute – Push Hard, Push Fast!

Continue “Hands-Only” CPR until Medical Help arrives. Personnel trained in BLS should transition to 30 Chest Compressions and then Open the Airway and deliver 2 Breaths.

Repeat 30:2 until an AED is in place.



Hands Only CPR

Learn how to do Hands-Only CPR in less than 2 minutes

NOTE! This is a British TV ad – We still Call 9-1-1 (Not 999)!

The Unresponsive Patient

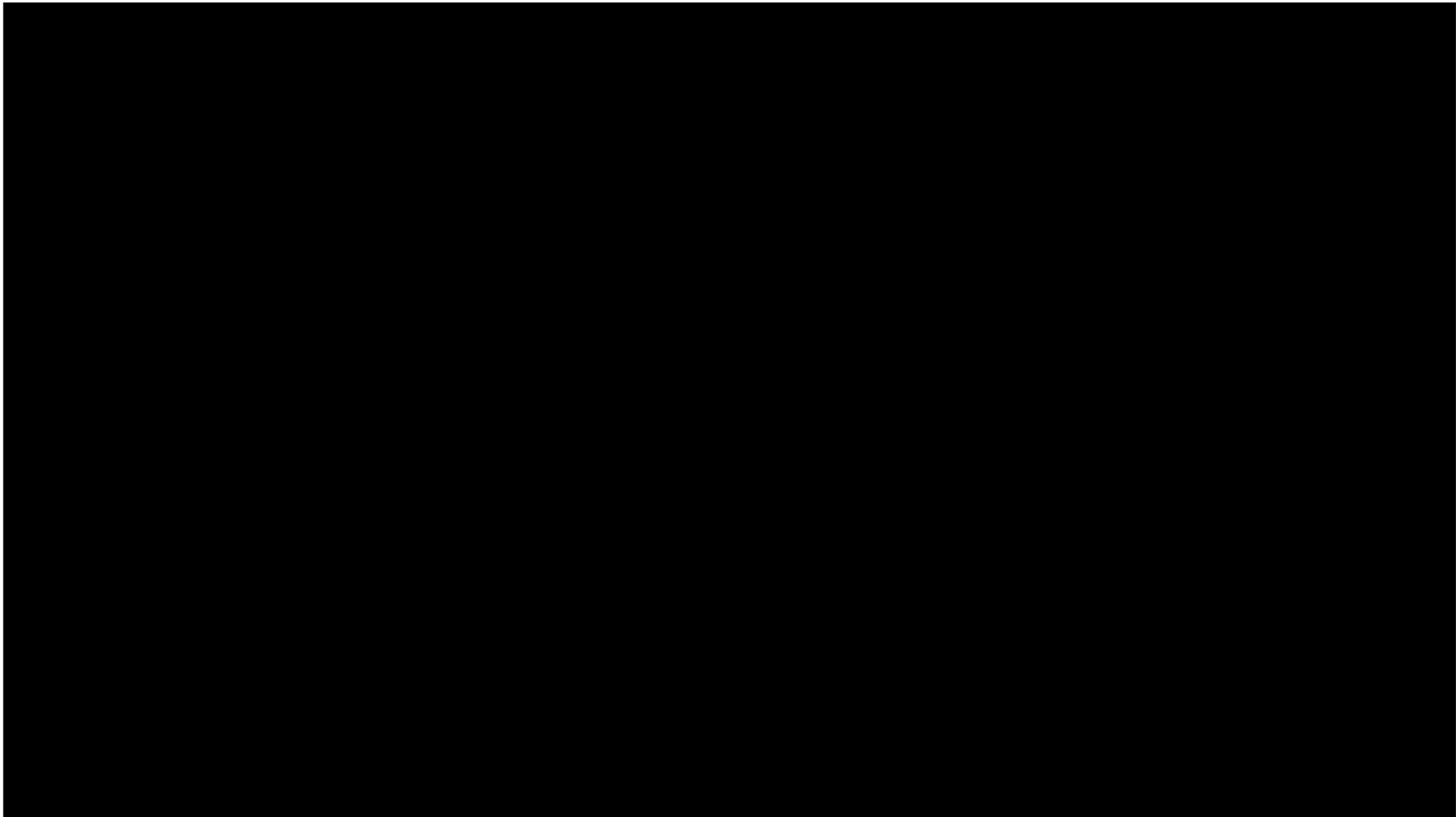
Automated External Defibrillators (AED)

Attach 2 electrode pads to the chest using pictures as guide. The AED will determine if the heart can be restarted using an electric shock.

Some devices will automatically charge and deliver a shock, others require you to push a button. Know your equipment and follow the manufacturer's directions for use.

Take a CPR class to practice using them.

High Performance CPR



**Ideal 2 person CPR response using “Pit Crew CPR”:
Chest Compressions, Airway & Breathing, and AED**

Symptoms of a Heart Attack

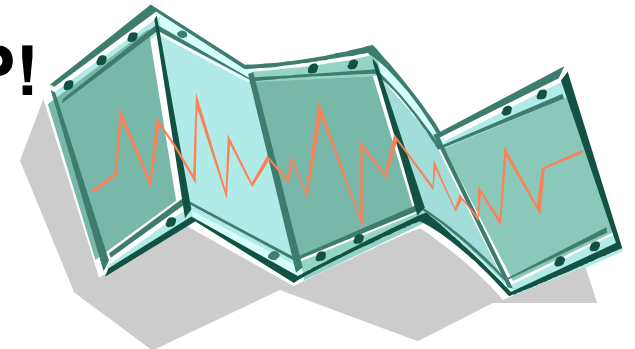
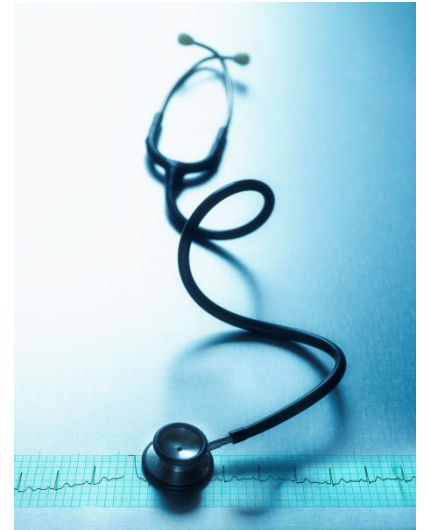
❖ Dull Chest Pain, Pressure, or Discomfort:

- Someone is standing on my chest
- Heaviness, Squeezing, Tightness
- Elephant sitting on my Chest

❖ Pain may radiate up to the neck, jaw, or into the arms, often to the left arm.

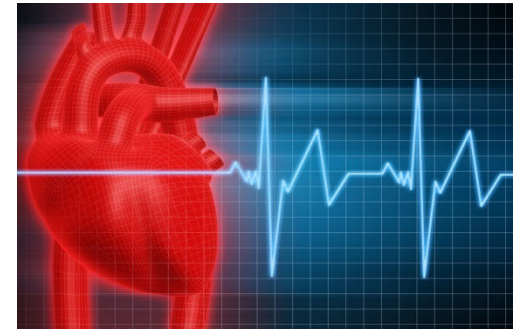
❖ Many patients ignore the symptoms at first.

❖ First hour is critical – **SEEK HELP!**



Heart Attack Treatment

1. Recognize the Symptoms
2. Call for Help – Activate EMS as soon as possible
3. Place patient in a position of comfort
4. Keep Calm – Both YOU and the patient
5. If the patient takes **Nitroglycerin** for Angina, assist them with their medications to see if it helps
6. Consult with EMS about the use of **Aspirin**
7. Get as much history from the patient as you can



Medical Emergencies

- **Allergic Reactions** – Hives, itching, swelling with rapid onset. May be local or systemic symptoms.
- Symptoms may range from “Hay Fever” to full Anaphylaxis with severe breathing difficulty
- Give **Benadryl** immediately! 50mg (2 capsules)
- If they have an **EPI Pen**, use it if any airway symptoms develop – Be prepared to use the 2nd **EPI Pen** if the symptoms return (approx 10-15 min)
- Treat for Shock and get to Medical Help ASAP!
- Any allergic reaction that develops airway symptoms is a true 9-1-1 Emergency!

Medical Emergencies

- **Diabetic Emergencies** – Rapid onset mental status problems are often related to low blood sugar.
- Give them **Glucose** immediately.
- Slower onset illness problems are often high blood sugar.
- Check actual blood sugar if a meter is available.
- Without a meter, try some **Glucose**
- If it works, give more **Glucose** until they are better
- If it doesn't work, go to a hospital or urgent care
- Hypoglycemia is serious – Call 9-1-1 if needed!

Any Questions?

