

# First Aid Components & Notes

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## Main First Aid Components

Main First Aid Kit – Complete set including any and all components and items possibly needed. Also used to supply other smaller first aid kits as needed.

### General

- Alcohol Prep Pads
- Aneroid Sphygmomanometer (BP cuff w/gauge)
- Bandage Scissors - 5½"
- Bite Stick
- CPR Face Shield
- Diagnostic Penlight
- Dixie Emergency Oral Airway Kit - Set of 6: 40-110mm
- Duct Tape - 2"x50"
- Emergency Mylar blankets
- Eye Wash
- Forceps - Kelly 5½" Straight
- Haemostatic Agent - Celox or QuickClot (35-50g)
- Instant Cold Packs
- Marker, Black (Sharpie)
- Medical Gloves
- Nasopharyngeal Airway + Lubricant
- Ring Cutter
- Scalpel
- Seat Belt Cutter
- Stethoscope
- Thermometer, Digital
- Tourniquet (CAT)
- Tweezers
- Wire Splint
- WoundSeal Powder Packets

### Medication

- Ammonia Inhalant
- Anti-Acid (Calcium Carbonate)
- Anti-Diarrheal (Diamode)
- Aspirin (Acetylsalicylic acid)
- Epinephrine Injector x2 (EpiPen)
- Gas Relief (Equate)
- Glucose (Insta-Glucose or Glucose Tablets)
- Ibuprofen 200mg (Advil or Equate)
- Potassium Iodide Tablets (iOSTAT)
- Sinus Decongestant Antihistamine (Diphenhydramine)

## Bandages, Pads & Tape

- Bandages – 2" x 4.5"
- Blood Stop Pads (Curad)
- Butterfly Wound Closures (Dynarex or 3M Steristrip)
- Eye Pads & Strips
- Fingertip Bandages (Curad Extreme length / Curad Extra Long Heavy Duty)
- Knuckle Bandages x2
- Medical Tape – 1"
- Non-Adherent Pads (Dynarex) - 3"x4"
- Olaes Modular Bandage – 4 or 6"x3m (or H&H Thin H Emergency Bandage)
- Oval Eye Pads
- Sheer Bandages - 1 x 3"
- Sheer Bandages - 3/4 x 3"
- Sterile Gauze Pads - 4" x 4"
- Stretch gauze Roll - 2"
- Stretch gauze Roll - 3"
- Stretch gauze Roll - 6"
- Surgical Dressings/Abdominal pads - 5" x 9"
- Triangular Bandage (Cravat)
- Wire Splint - 3.75"x27"

## Ointments & Surface Prep

- Alcohol Prep Pads
- Burn Dressing, Koolaburn 2" x 2"
- Burn Dressing, Koolaburn 4" x 4"
- BZM (Benzalkonium Chloride) Pads (Non-essential)
- Cold Sore Treatment
- Compound Tincture of Benzoin, 10% Swabstick
- Instant Cold Pack (Dynarex) - 4"x5"
- Petroleum Jelly (Vaseline)
- Povidone Iodine (PVP) Prep Pads and/or Swabs
- Sting Relief Pads or Swabs
- Triple Antibiotic Ointment Packets
- Water Jel Burn Gel 4 fl oz
- Water Jel Burn Gel External Analgesic

## Extra

- AMBU Bag Valve Mask
- Cervical Collar (Laerdal Stifneck Select Adjustable Cervical Collar)
- Pulse Oximeter
- Suture Thread w/ Needle
- Glucose Monitoring System
- Surgical Stapler

## Traumatic IFAK

Ideal inventory of a portable and relatively compact Individual First Aid Kit. Emphasis towards life threatening injuries, but also including comfort-oriented components. Exact inventory of items may be tailored to the precise space available or intended use.

- Alcohol Prep Pads
- Ammonia Inhalant
- Anti-Diarrheal (Diamode)
- Aspirin (Acetylsalicylic acid)
- Bandage Scissors - 5½"
- Blood Stop Pads (Curad)
- Butterfly Wound Closures (Dynarex or 3M Steristrip)
- Chest Seals (Foxseal Chest Seals)
- Tourniquet (CAT Tourniquet)
- Compressed Gauze (H&H PriMed Compressed Gauze)
- CPR Face Shield
- Duct Tape - 2"x50"
- Emergency Mylar blankets
- Fingertip Bandages (Curad Extreme length / Curad Extra Long Heavy Duty)
- Haemostatic Agent - Celox or QuickClot (35-50g)
- Ibuprofen 200mg (Advil or Equate)
- Knuckle Bandages
- Marker, Black (Sharpie)
- Medical gloves
- Medical tape
- Nasopharyngeal Airway + Lubricant
- Non-Adherent Pads (Dynarex) - 3"x4"
- Olaes Modular Bandage, 6"x3m (or H&H Thin H Emergency Bandage)
- Povidone Iodine (PVP) Prep Pads
- Sheer Bandages (Band-Aids)
- Sinus Decongestant Antihistamine (Diphenhydramine)
- Sterile Gauze Pads
- Sting Relief Pads
- Stretch gauze
- Tourniquet (CAT)
- Trauma shears
- Triangular Bandage (Cravat)
- Triple Antibiotic Ointment Packets
- Tweezers
- Water Jel Burn Gel External Analgesic Packets
- WoundSeal Powder Packets

## AR500 Armor Tactical Emergency Personal Injury Kit (EPIK) (IFAK)

Emergency first aid centered almost exclusively on traumatic, life-threatening injuries.

- Chest Seals (Foxseal Chest Seals)
- Tourniquet, Compact (Swat-Tourniquet or SOF Wide Tourniquet)
- Compressed Gauze (H&H PriMed Compressed Gauze)

- Hemostatic agent (Celox or Quick Clot 50g)
- Medical gloves
- Medical tape
- Olaes Modular Bandage, 4"x3m (or H&H Thin H Emergency Bandage)
- Trauma shears

## Notes – Component Descriptions

Suggested uses, tips and recommendations

- **Alcohol Prep Pads:** Preferable for cleaning around a wound or disinfecting tools, instruments or preparing surfaces. Quickly evaporating and residue free. Not for internal use or application to open wounds, as it is painful and can cause damage or prevent healing. Flammable nature may be useful for fire-starting. Also of benefit in patients suffering from **nausea** when given to smell for short periods.
- **AMBU Bag Valve Mask (BVM):** Allows application of positive air pressure to any patient not ventilating properly. When using a BVM, a **nasopharyngeal airway** should always be used to insure an open airway. Using a BVM is ineffective if there is not an open airway. Use should be a **two person job**, with one person controlling the bag, and another person correctly holding the mask in place as well as assuring a proper head position.
- **Ammonia Inhalant:** Commonly called "Smelling salts". Used for reviving someone suffering from syncope (loss of consciousness or Vasovagal episode, a common form of fainting). Ammonia inhalants are also used in competitive sports such as powerlifting, football, and hockey as a way to stimulate an athlete, making them more alert (or to "wake up" and perform better). Smelling salts release ammonia (NH<sub>3</sub>) gas, which triggers an inhalation reflex (that is, causes the muscles that control breathing to work faster) by irritating the mucous membranes of the nose and lungs. Additionally, the irritant elevates the heart rate, blood pressure, and brain activity by activating the sympathetic nervous system.
- **Aneroid Sphygmomanometer (BP cuff w/gauge):** Used for measuring blood pressure, which should typically be close to **120 (systolic) over 80 (diastolic)**.
- **Anti-Acid (Calcium Carbonate):** Used as an antacid to relieve temporary heartburn, acid indigestion or upset stomach.
- **Anti-Diarrheal – Diamode – 100@8.85\$:** Used for control and symptomatic relief of acute non-specific diarrhea by slowing the rhythm of digestion.
- **Aspirin (Acetylsalicylic acid):** Aspirin is used to treat pain, fever and inflammation, and sometimes used to treat or prevent heart attacks, strokes, and chest pain (angina). If a patient is suffering or about to suffer a **heart attack**, aspirin is recommended. It is not recommended for patients with blood clotting issues or patients who are bleeding, since it does thin blood. Aspirin is not recommended in patients younger than 20.
- **Bandage Scissors - 5½":** Smaller scissors used for the trimming and shaping of bandages. Should not be used for the cutting of textiles or thicker fabrics, for which trauma shears are preferable.
- **Bite Stick:** Also called a Seizure stick. Item depresses the tongue and provides an airway for seizure patients. Modern practice does **not recommend** their use, as they can do more harm than benefit. The current practice is to leave the patient alone in a protected environment to go through seizure. It may still be used as a splint or for aiding with administration of oral glucose when placed between cheek and gums.
- **Blood Stop Pads (Curad):** Pad saturated with a blood clotting agent with jellifies blood in order to stop bleeding.
- **Burn Dressing, Koolaburn:** Self-cooling, sterile dressings for emergency treatment of first and second degree burns. Common sizes are 2" x 2" and 4" x 4".

- **Butterfly Wound Closures (Dynarex or 3M Steristrip):** Small adhesive bandage strips used for maintaining lacerations closed. May be used temporarily until stitches are applied, or to lessen scarring and increase ease of care in comparison to stitches.
- **BZM (Benzalkonium Chloride) Pads:** Non-essential component. Benzalkonium Chloride towelettes are used as a skin disinfectant. They are ideal for cleansing a wound. Effective against bacteria, viruses, fungi and protozoa. Can be used as a substitute for both alcohol and PVP pads, since it does not sting in open wounds like alcohol, and does not stain like Povidone-Iodine. Tends to have limited availability making other products possibly a better choice.
- **CAT Tourniquet:** Used to stop catastrophic hemorrhage to limbs. Should only be used when life of patient is in danger, but should not be shied away from if bleeding cannot be stopped. Tourniquet should be applied to bare skin. Note time of application, preferably on cheek or forehead of patient. The negative consequences of inappropriate or prolonged use of tourniquets may include, but are not limited to, nerve damage, tissue death and blood clots.
- **Cervical Collar – Laerdal Stifneck Select Adjustable Cervical Collar – 10.90\$:** Medical device used to support a person's neck. It is also used by emergency personnel for those who have had traumatic head or neck injuries, especially for safer transportation. Caution should be taken since it is not universally recommended, as it is often found ineffective (does not truly immobilize spine) or even harmful.
- **Chest Seals (Foxseal Chest Seals) - 2@14.99\$:** While blood loss is a serious concern in the thoracic area, impediments to respiration are a higher priority. Chest seals are used since packing a wound in the thoracic area tends to be difficult. Non-vented chest seals may lead to a tension pneumothorax (blood or air in the thoracic cavity). Wounds in the back of a victim should be treated with a non-vented occlusive dressing.
- **Cold Sore Treatment:** Cold sores are viral infections which normally heal on their own in 5-7 days. Creams exist to alleviate symptoms such as burning and pain as well as reducing the healing time.
- **Compound Tincture of Benzoin, 10% Swabstick:** Topical tincture used as an adherent and skin protectant and for dressing minor wounds (due to antibiotic and antiseptic properties), or applying prior to a bandage to enhance adhesion.
- **Compressed Gauze (H&H PriMed Compressed Gauze):** Sterile crinkle fluff bandage, in a vacuum sealed and compressed packaging format for easier packaging. Good absorption and compression qualities.
- **CPR Face Shield:** Disposable, one-way valved mask for providing CPR resuscitation while giving the user protection against the bodily fluids of the victim.
- **Diagnostic Penlight:** Battery operated light, useful for examination.
- **Dixie Emergency Oral Airway Kit (Set of 6: 40-110mm):** Also known as a Oropharyngeal Airway. Only recommended for unconscious patients since it may induce the gag reflex.
- **Duct Tape (2"x50"):** Short measure of duct tape in a compact format, used for a variety of improvised purposes such as (but not limited to) butterfly bandages, occlusive bandages, for compression, etc.
- **Emergency Mylar blankets:** Emergency, single-use, compact blankets which function by reflecting heat. They are waterproof and windproof. They are designed to retain the injured person's body heat during shock. Can also be used for emergency signaling due to its reflective nature.
- **Epinephrine Injector (EpiPen):** Emergency auto-injector for treating anaphylaxis in reaction to an allergen. The severity, progression, symptoms and duration of the symptoms of anaphylaxis are inconsistent and unpredictable. EpiPen injections contain epinephrine, a chemical that narrows blood vessels and opens airways in the lungs. These effects can reverse severe low blood pressure, wheezing, severe skin itching, hives, and other symptoms of an allergic reaction. Two doses can be used if necessary. The effects of EpiPen may wear off after 10 or 20 minutes.

- **Eye Pads:** Generally sterile eye pads used to protect injured eyes from further injury or prevent infection and strain.
- **Eye Wash:** Sterile saline solution principally used for flushing foreign materials out of the eye. It can also be used to flush wounds if necessary.
- **Fingertip Bandages (Curad Extreme length / Curad Extra Long Heavy Duty):** Extra-long bandages, particularly suitable for wounds on fingers.
- **Forceps - Kelly 5½" Straight:** Hemostatic clamps which can be used to hold blood vessels closed, manipulating [tissues], or for other assorted purposes. They can be locked closed during operation if necessary.
- **Gas Relief (Equate):** Simethicone medication which provides symptomatic relief of stomach pressure, bloating or discomfort.
- **Glucose (Insta-Glucose or Glucose Tablets):** Rapidly digestible carbohydrates, of use in patients with hypoglycemia or low blood sugar. Symptoms can range from nausea and hunger to fatigue and trembling.
- **Glucose Monitoring System:** Used to measure blood sugar level (glucose). For someone without diabetes, a fasting blood sugar on awakening should be under 100 mg/dl. Before-meal normal sugars are 70–99 mg/dl. If you have diabetes, it is advised to keep your blood sugar levels before meals from 80–130 mg/dl and your levels 1–2 hours after meals under 180 mg/dl.
- **Hemostatic agent (CeloX or QuickClot 50g) – 15.99\$:** Hemostatic agent offered in various formats (granule, sponge, syringe...) designed to quickly coagulate blood when applied directly to an open, hemorrhaging wound. QuickClot is based on volcanic rock (and must be removed from wound before sealing) which absorbs water increasing concentration of platelets, whereas CeloX is composed of Chitosan (a natural component which can be left in wound to be absorbed by body) which binds blood in place. Direct pressure should always be applied prior to using Hemostatic agents. They are used with direct pressure, not instead of. It should be applied directly to the source of bleeding
- **Ibuprofen 200mg (Advil or Equate):** NSAID used to reduce fever and treat pain or inflammation caused by many conditions such as headache, toothache, back pain, arthritis, menstrual cramps, or minor injury. It can be used in adults and children who are at least 6 months old. Taking ibuprofen during the last 3 months of pregnancy may harm the unborn baby.
- **Instant Cold Pack, Dynarex 4"x5":** 24@13.68\$. Immediate first aid treatment for contusions, sprains, abrasions and other minor injuries. Stays cold for approximately 20 minutes.
- **Knuckle Bandages:** Bandage suitable for small cuts and scrapes on the knuckle area because they are flexible and move with you rather than restricting movement. Anatomically specific shapes aids in keeping bandage in place.
- **Marker, Black (Sharpie):** Suitable for marking on skin if necessary.
- **Medical gloves:** The use of gloves as PPE (Personal Protection Equipment) are the norm whenever there is a procedure where sterility and cleanliness is needed. Exam gloves protect the wearer from chemicals, biohazards, and other potentially dangerous substances. Exam gloves also are to protect the patient from any cross contamination during exams or medical procedures. Medical exam gloves vary in size, thickness and material.
- **Medical tape:** Used to secure bandages, items or any other number of medical uses. There are many different varieties, types and materials suited for different uses.
- **Nasopharyngeal airway:** Also known as Nasal Trumpet or NPA. Used to keep the airway open for ventilation without risk of occlusion by the tongue. Should be used in conjunction with a Bag Valve Mask. The appropriate size should be used, which is slightly smaller in diameter than the nostril and length similar to that between the tip of the patient's nose and tip of his earlobe. Sterile water-soluble lubricant should always be used during insertion.

To insert, pull nose upwards for better visibility and lubricate prior to insertion. Item should not be used dry, but can be used lubricated with spit (preferably but not necessarily the patient's) if necessary. The tube is designed to be used with the right nostril due to the **bevel**, which should be inserted facing the septum. If using in the left nostril insert with the bevel towards the septum and then rotate 180 degrees so the curvature of the tube follows the airway. If the tube encounters resistance, insert into other nostril. Ideally it is inserted until the flange touches the nostril. If patient is conscious, indicating the patient to swallow helps reduce the gag reflex in order to further insert the tube. Stop if the patient cannot handle it anymore. In most people the right side is generally straightest and open side (meaning easier insertion). Should be taped in place after insertion. Insertion is not painful, but tends to be unpleasant. Can be inserted into a conscious or semiconscious patient, as it generally does not stimulate the gag reflex. Two Nasopharyngeal airway tubes can be inserted into **both nostrils** simultaneously.

- **Non-Adherent Pads (Dynarex) 3"x4"**: Sterile, individually packaged and highly absorbent pads which provide effective protection of cuts, scrapes, and burns while not sticking to the wound. The inner layer is made with 70 percent Rayon and 30 percent Polyester, Non-woven fabric (145 g/m). The outer layer consists of Delnet apertured fabric (17 g/m).
- **Olaes Modular Bandage 4/6"x3m (or H&H Thin H Emergency Bandage) – 6.99\$**: Sterile compact trauma bandage with features such as 3 meters of z-fold removable sterile 4-ply gauze, an elastic bandage with control strips (which stretches to 8ft.), a removable occlusive plastic sheet behind the dressing pad and a pressure bar that can also act as an eye cup. It is also suitable for wounds with an entry and exit point.
- **Petroleum Jelly (Vaseline)**: Creates a barrier that promotes healing by keeping water, air, and bacteria out. Excellent for dry skin. It should not be used on serious burns given that it is not sterile. It may also be used as a fire starter.
- **Potassium Iodide Tablets (iOSTAT)**: Thyroid blocking agent which protects against radioactive iodine being absorbed by the thyroid gland via its saturation with potassium iodide. 14 tablets of iOSTAT protects one adult for two weeks.
- **Povidone Iodine (PVP) Prep Pads and/or Swabs**: Povidone Iodine ointment is an antiseptic (cleansing and sterilizing agent) and topical antibiotic. It's effective and painless, although it can be messy as it stains. It can be used to clean a wound, applied directly on the skin or a sterile dressing. Can be diluted in water for washing a wound. Some individuals are allergic to iodine and can get a rash. It should not be applied to deep puncture wounds, or on severe burns.
- **Pulse Oximeter**: Noninvasive method for monitoring a person's oxygen saturation (SO<sub>2</sub>). Its reading of SpO<sub>2</sub> (peripheral oxygen saturation) is not always identical to the reading of SaO<sub>2</sub> (arterial oxygen saturation) from arterial blood gas analysis, but the two are correlated sufficiently well enough. An oxygen level of greater than **95%** is generally considered to be a normal oxygen level. An oxygen level of **92%** or less (at sea level) suggests a low blood oxygen. Simultaneously measures heartbeat, which should be between **60-80bpm**.
- **Ring Cutter**: Used to remove rings where inflammation of the finger impedes the normal removal of the ring. In non-urgent cases, a string or thin strap wrapped around the finger can also be used for non-destructive removal of the ring.
- **Scalpel**: Disposable sterile knife used for surgical procedures or other medical uses.
- **Seat Belt Cutter**: Sharp bladed tool suitable for cutting seatbelts in car accidents.
- **Sheer Bandages**: Common adhesive bandage for superficial scrapes and wounds with little bleeding. Can be used in conjunction with ointment to prevent contamination or aid healing.
- **Sinus Decongestant Antihistamine (Diphen or Diphenhydramine)**: Used for symptomatic relief of red, irritated, itchy, watery eyes; sneezing; and runny nose caused by hay fever, allergies, or the common cold.

Diphenhydramine is also used to relieve cough caused by minor throat or airway irritation, as well as to prevent and treat **motion sickness**, and to treat **insomnia**.

- **Sterile Gauze Pads:** Comes in many shapes, sizes and types, including surgical adhesive dressing, gauze bandages, super sponge, AMD pad, sterile gauze pads and sterile gauze dressings.
- **Stethoscope:** Acoustic medical device for auscultation, or listening to the internal sounds of an animal or human body. Commonly used for auscultation in the thoracic cavity or for blood pressure measurement in combination with a cuff.
- **Sting Relief Pads or Swabs:** Used for relief of insect bites, minor burns, scrapes, scratches. Use for immediate relief. Not for long term use, if swelling occurs, discontinue. Do not use in eyes or nose or on large areas of the body.
- **Stretch gauze Roll:** Commonly used sizes (widths) are 2", 3" and 6". Product are made of a thin, woven fabric material that is placed over a wound to keep it clean while allowing air to penetrate and promote healing. It can be used to bandage a wound, secure a dressing in place, or it can be used directly on a wound. These bandages are the most common type and are available in many sizes.
- **Surgical Dressings/Abdominal pads 5" x 9":** Also called ABD (Army Battle Dressing) pads. Used for large wounds or for wounds requiring high absorbency. They are constructed with a thick absorbent layer that disperses fluids to keep them from pooling upon the wound site in order to manage heavy draining wounds.
- **Suture Thread w/ Needle:** The most popular and useful suture sizes for a survival situation are the 2-0 (largest), 3-0 (next smaller size) and the 4-0 (most popular). The smaller the number the greater the size. Normally 18" of thread is supplied.
- **Thermometer, Digital:** A normal axillary temperature is between **96.6° (35.9° C) and 98° F (36.7° C)**. A normal oral temperature is between **98.6° (37° C)**.
- **Trauma shears:** Primarily for cutting clothing or other strong materials. Flat portion of blade helps prevent damage to skin.
- **Triangular Bandage (Cravat):** Multi-purpose bandage to compress various injuries or support sprains and/or broken bones, as a trauma pad, to immobilize a limb, etc.
- **Triple Antibiotic Ointment Packets:** Combination of Bacitracin, Neomycin, and Polymyxin B, which are antibiotics that kill bacteria on your skin. It is a combination medicine used as a first aid antibiotic to prevent infections in minor cuts, scrapes, or burns on your skin. Clean skin before applying. Do not use on a deep cut, puncture wounds, animal bite, or a serious burn. Medication can be applied up to 3 times each day.
- **Tweezers:** Used for removing foreign objects with precision. Should not be used with insect stingers without proper methodology.
- **Water Jel Burn Gel External Analgesic:** 96% Deionized water, 2% Lidocain (pain relief), and Tea tree oil (antiseptic). Product intended to stop the burning process, cool the burned area, relieve pain, prevent further injury and do not contribute to hypothermia or interfere with debridement. Safe on eyes and mucous membranes. 5 year shelf life.
- **Wire Splint (3-3/4"x27"):** Used as a support for fractures and other injuries. Can be bent into whatever shape is required.
- **WoundSeal Powder Packets:** Combination of hydrophilic polymer and potassium ferrate which stops bleedings in seconds, forming an occlusive seal preventing further bleeding or oozing. Apply product onto wound completely covering it, and apply pressure for 30 seconds to form a protective seal and stop bleeding. After application cover with bandage and let scab fall on its own.



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