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Bleeding Control: When Time & Resources are Not on Your Side

Why Do I Have to Learn This?!



Because things are different right now

COVID-19 has changed response times

<https://nypost.com/2020/04/11/new-yorkers-are-dying-as-ambulance-response-times-surge-amid-coronavirus/>

Critical delays

EMS response times have surged. In The Bronx, it takes twice as long for crews to get to medical emergencies as it did a month before the outbreak – a startling 24 minutes and 55 seconds.

BOROUGH	LIFE-THREATENING CASES FEB.	ALL MEDICAL EMERGENCIES FEB.	LIFE-THREATENING CASES MARCH	ALL MEDICAL EMERGENCIES MARCH
Bronx	7:53	12:01	10:27	24:55
Brooklyn	7:23	10:51	8:58	17:07
Queens	7:55	10:46	10:09	16:59
Manhattan	7:26	12:22	7:59	14:01
Staten Is.	7:21	10:05	8:52	10:51
Citywide	7:38	11:27	9:24	18:07




Lets Re-cap the basics of bleeding control

This re-cap does not replace a proper “Bleeding Control” class

Now is the time to get current.

BTW, how old is your CPR Card? Your First Aid card?



Massive Bleeding: The basic steps

- Ensure your own safety first
- Call 9-1-1
- Find the bleeding injury
- Apply pressure to stop the bleeding by
 - Covering a wound with a clean cloth and applying pressure with both hands, OR
 - Using a tourniquet. OR
 - Packing (filling) the wound with gauze and applying pressure with both hands



More Bleeding Basics

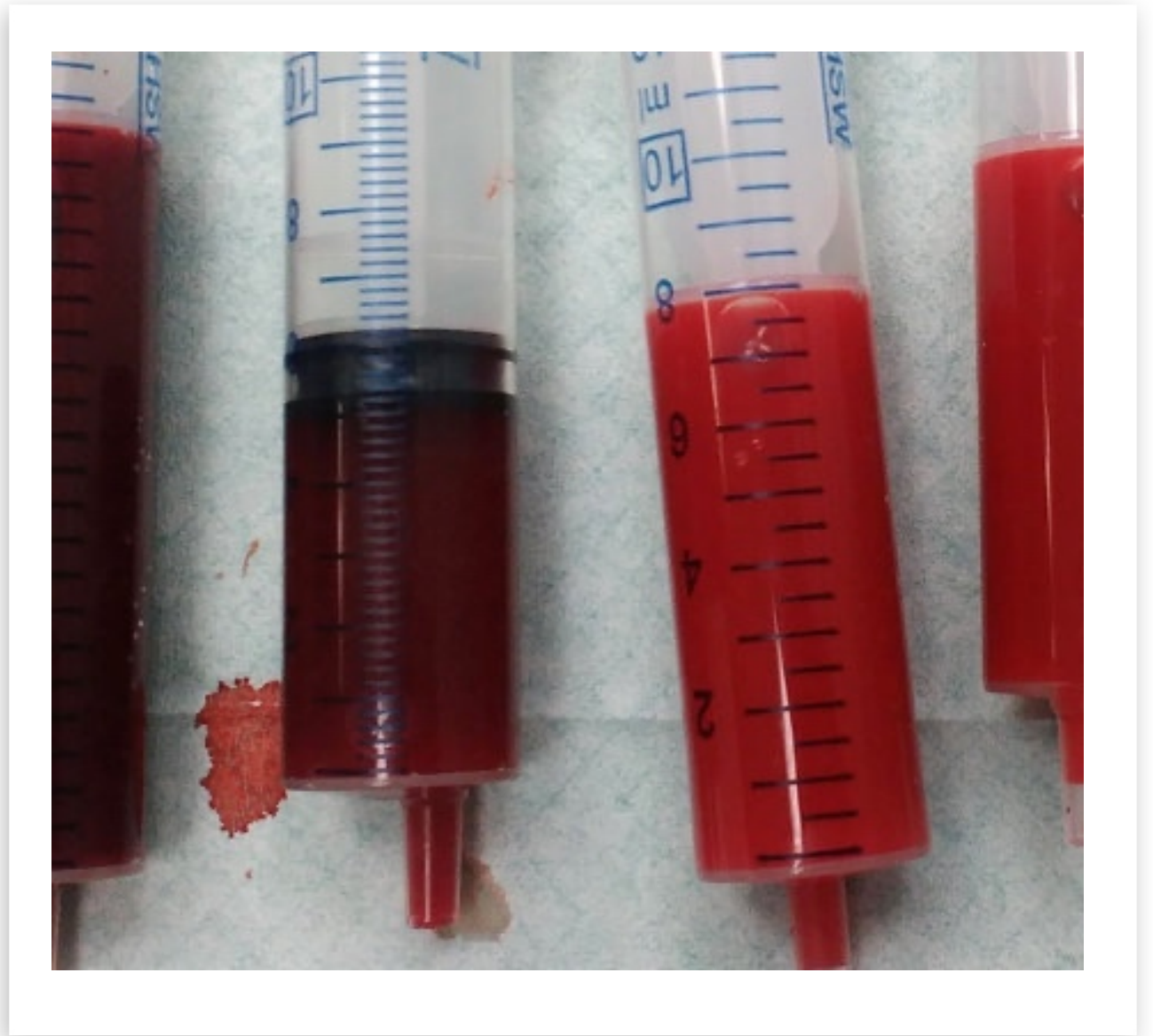
- Massive bleeding is priority #1
- Leading cause of death both in combat and civilian life
- Chances of survival diminish with each passing moment


Signs

- Pale, cool, clammy skin
- Light-headedness
- Unconsciousness
- Pool of blood ←



More Bleeding Basics





Arterial vs. Venous

- Arteries are carrying freshly oxygenated blood away from the heart
- Veins carry “tired” or used blood back to the heart
- Both can be dangerous
- Arterial bleeds are usually most urgent



Arterial Bleeding


- Spurting and bright red blood are bad signs
- Pumps a lot of blood, quickly
- Life-threatening

Alert: Next video/slides may be a little graphic for some

Blood spurting out of a wound

Bleeding: What is life- threatening?





Venous Bleeding

- Appears slow, deep red
- Slower blood loss, steady rate
- Can be life threatening

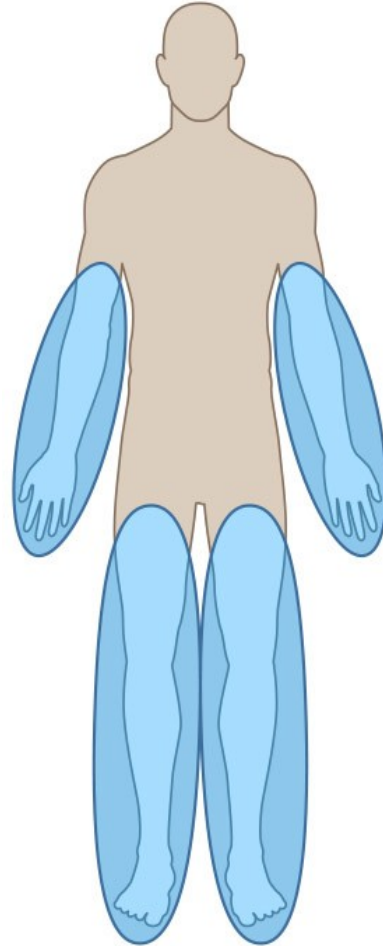
Alert: Next video/slides may be a little graphic for some

Blood soaking the sheet or clothing

||| Bleeding:
What is life-
threatening?



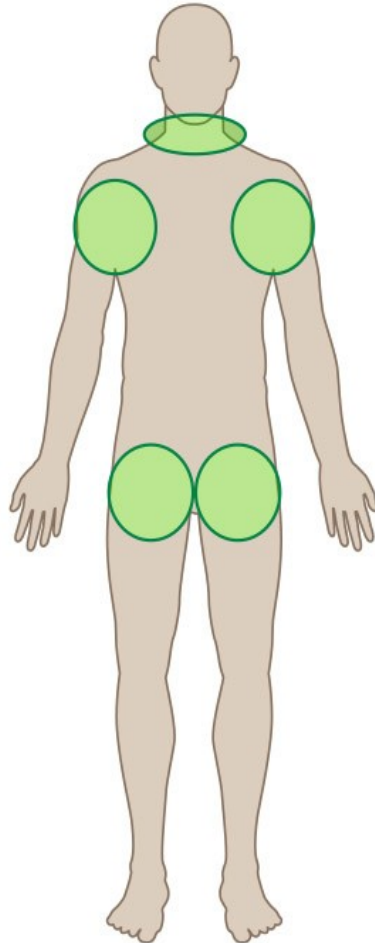
Bleeding: Wounds that can lead to death from bleeding



Arm and Leg Wounds

- Most frequent cause of **preventable** death from injury
- Bleeding from these wounds can be controlled from **direct pressure** or a **tourniquet**

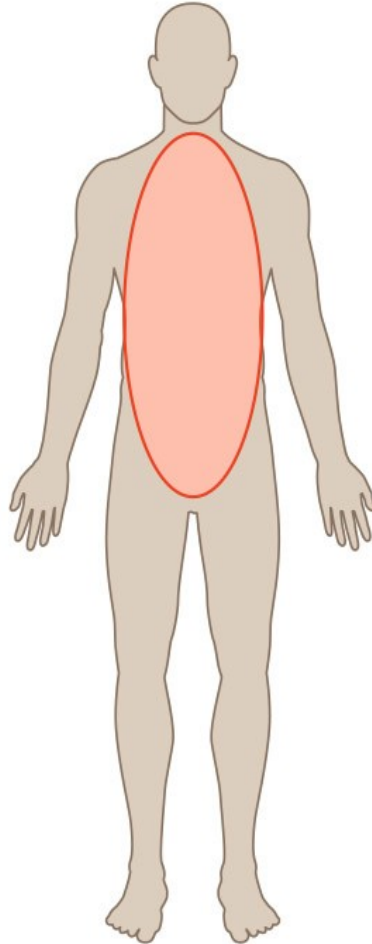
Bleeding: Wounds that can lead to death from bleeding



Torso Junctional Wounds

- Neck, should, and groin
- Bleeding from these wounds can be controlled from **direct pressure** and **wound packing**

Bleeding: Wounds that can lead to death from bleeding



Chest and Abdominal Injuries

- Front, back, or side
- Usually cause internal bleeding
- This bleeding **cannot** be stopped outside the hospital
- These victims need rapid transport to a trauma center
- Identify these patients to EMS providers when they arrive

Let's open your kit

- Brief overview of basic components
- How to use them best




Gloves

- Vinyl or Nitrile
- Avoid Latex
- Which size?
- How to store them
- Color?





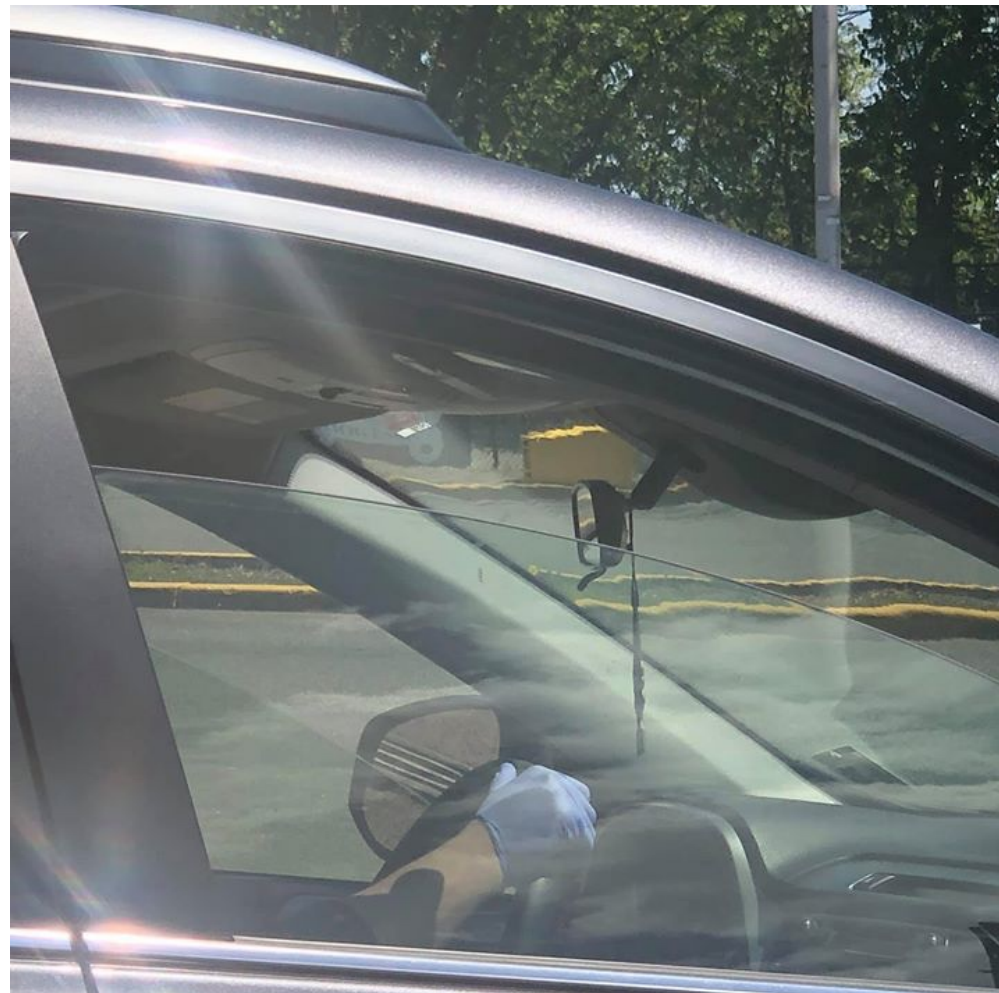
Gloves



Donning of Disposable Gloves



Gloves need to
used properly



Trauma Shears

- Rugged construction
- Blunt tip allows for it to glide across skin
- Intended to remove clothing, seat belts
- Reusable to a point
- Cheaper ones tend to break



Klever Cutters

- Intended to remove clothing, seat belts
- Reusable to a point
- Compact, flat
- Fits in small kits
- TSA doesn't take it





Trauma Shears





Get the Bleeding Under Control

You have the kit, put on your gloves, mask. You exposed the bleeding with your shears.

Now what?

- Direct pressure. Lots of it. 5-10 minutes.
- If that doesn't work or if the bleeding appears to be arterial-spurting?
- Tourniquet

Tourniquets

- Common examples of when to use one as a civilian
- Car accidents
- Gunshot wounds
- Work environment accidents
- Knife wounds



Tourniquet Types



Stretch Wrap and Tuck Tourniquet (SWAT-T)

Combat Application Tourniquet (CAT)



SOF Tactical Tourniquet (SOFTT)




In all but the child 11 or under, the same tourniquet used for adults can be used in children.

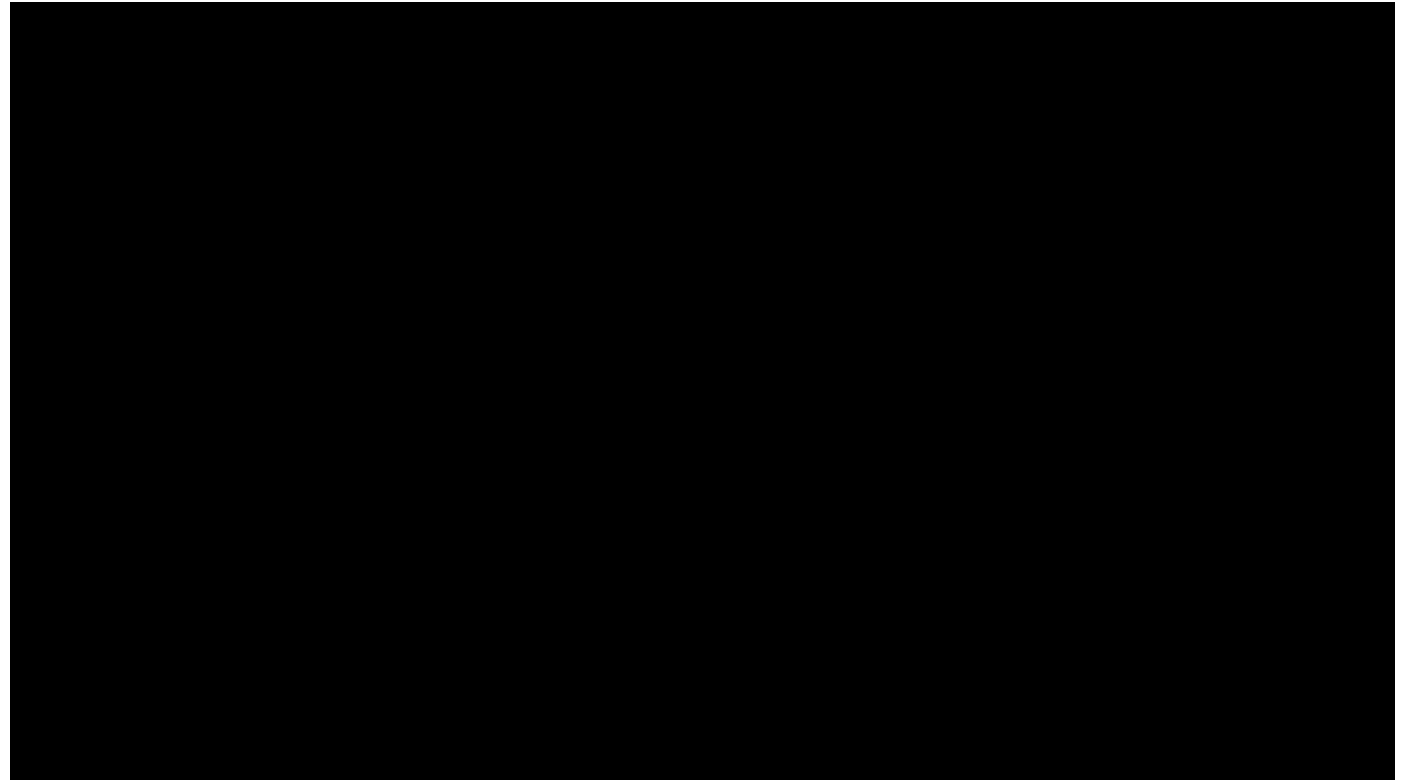
For the infant or very small child (tourniquet too big), Use a SWAT-T or direct pressure on the wound.



This video is free to use for educational purposes.



Tourniquet Application Skills

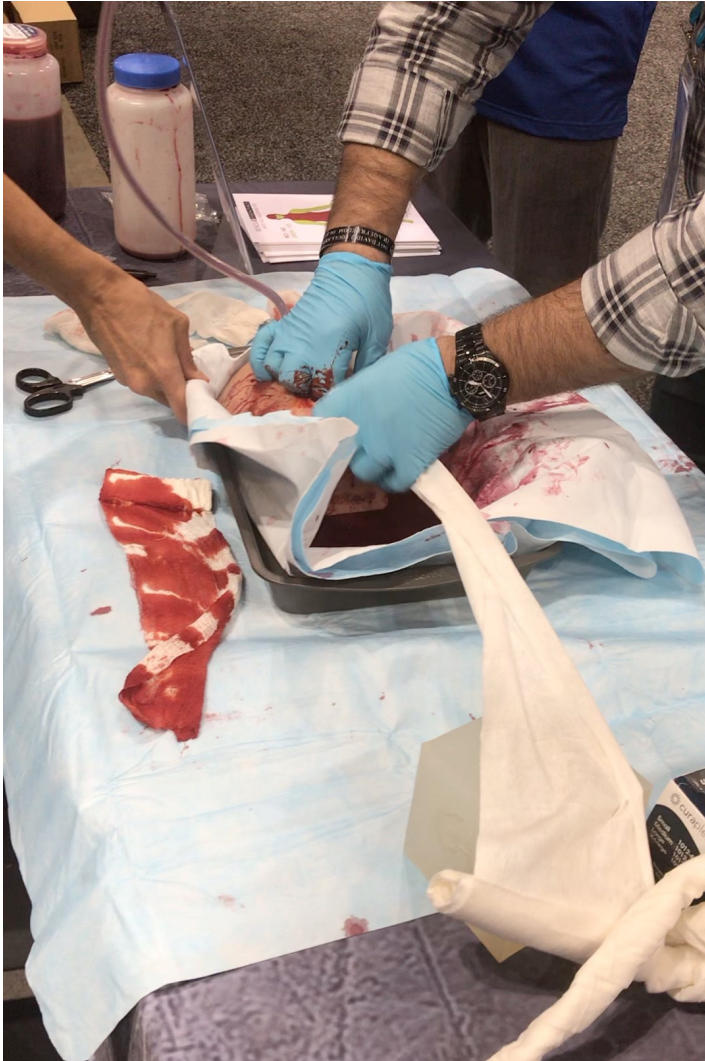


The Sharpie



- Write down time of tourniquet placement
- If not available, use your mobile phone





Wound Packing



Wound Packing

A wound that is deep, bloody and does not respond to direct pressure needs to be packed.

Gauze and/or a hemostatic agent are your tools for that



Bleeding Control in Children

For large, deep wounds, wound packing can be performed in children just as in adults using the same technique as described previously.

Gauzes

- Flat, rolled or Z-folded
- Sterile or non-sterile
- Check for shelf-life
- Keep it in the pouch





Blood Stoppers Hemostatic Agents

- QuikClot
- Celox
- Chitoflex
- So many!

Hemostatic Agents

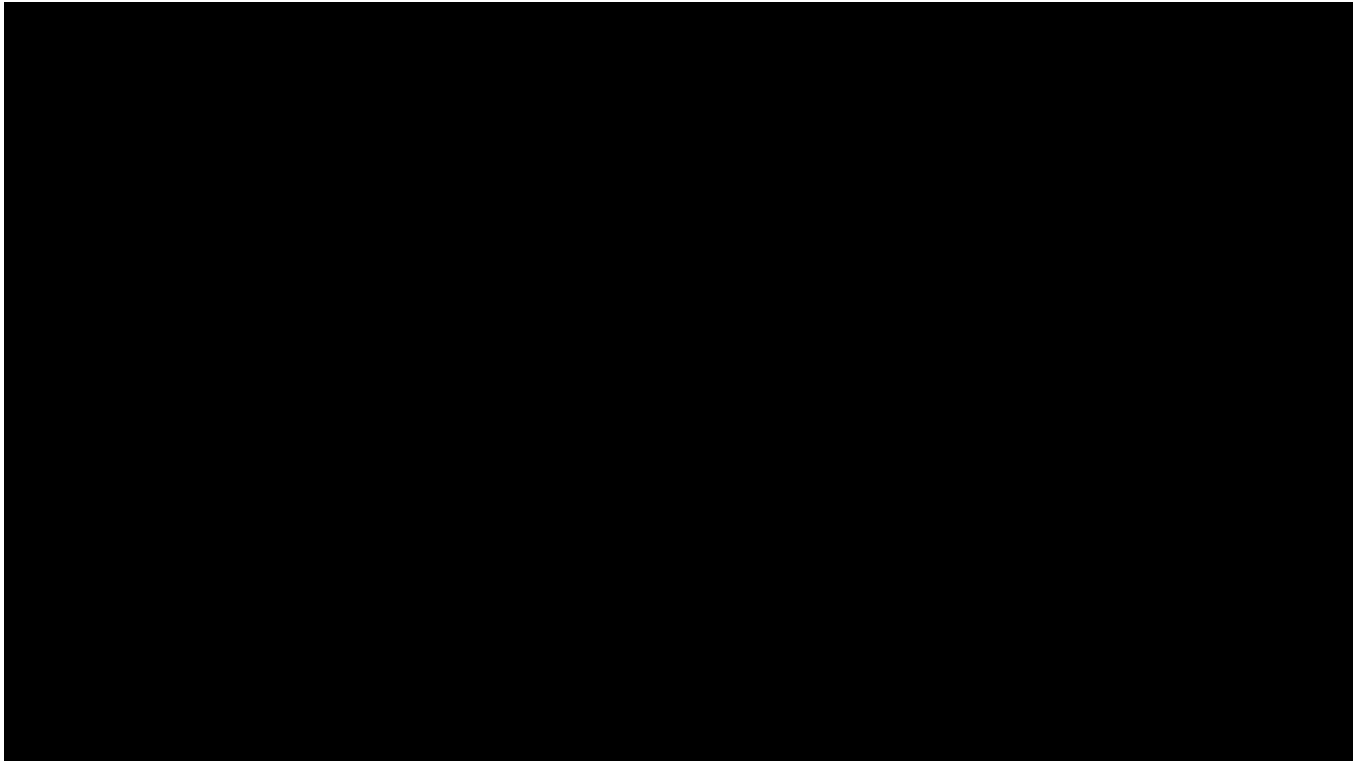
- Keep it in its package-keep it dry
- Check shelf-life
- Use as directed on package
- Find the source of the bleed
- Save package for EMS



This video is free to use for educational purposes.



Wound Packing and Direct Pressure Skills



Pressure and Compression Bandages

- Many different sizes
- Easily applied to a variety of locations
- Good for light or heavy bleeding
- Sterile and non-sterile



Bleeding Control Kits



Know what's in it and how to use it



Watch for expiry dates (gauzes, ointments, chest seals, hemostatic agents)



Where is the kit(s)?



Do the "kids" know how to use it?

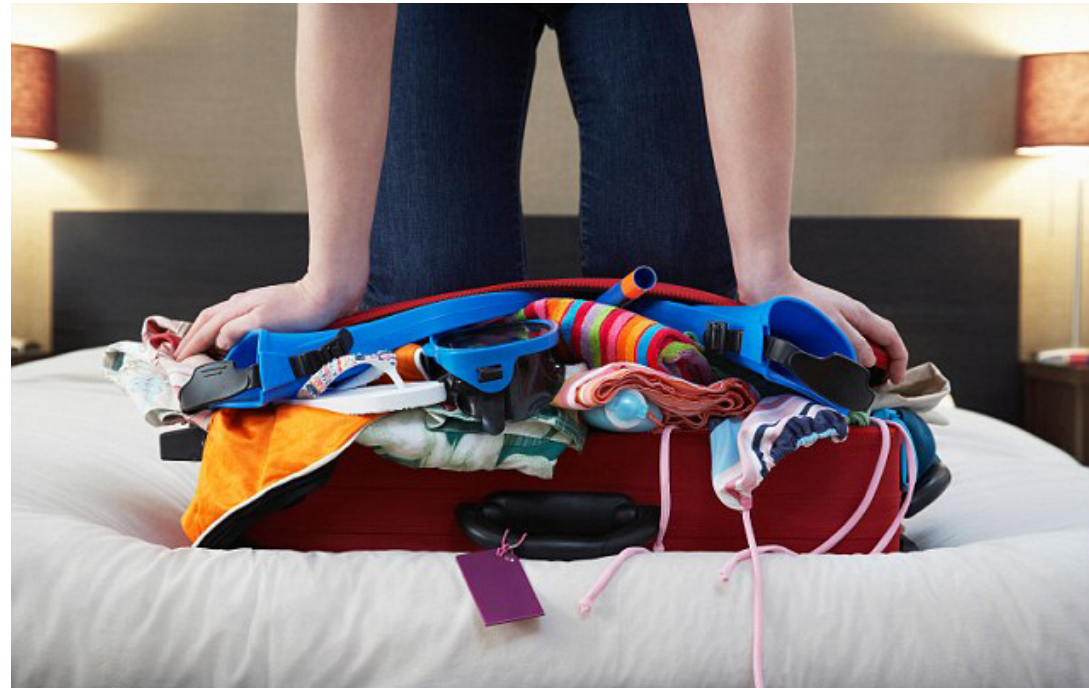


What about the kit itself?

- Hard case
- Nylon bag
- Vacuum packed
- Resealable vacuum packed-swap out expiring or used products

How much STUFF?

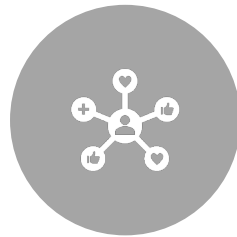
...is just enough



How to choose what's best for you



WHAT IS THE PURPOSE OF THE KIT? SCHOOL? PERSONAL CAR? BUS? WHERE WILL IT BE STORED?



WHAT KIND OF TRAINING WILL THE USERS HAVE? THINK CHEST SEALS, HEMOSTATIC AGENTS



WHAT IS THE BUDGET?



WHAT IS YOUR MAIN PURPOSE OF THE KIT? BLEEDING CONTROL? FIRST AID?



HOW MANY PEOPLE COULD BE TREATED FROM THIS KIT? SINGLE USER, MASS CASUALTY?

Level of Care/Basic



Contents: gloves, gauze, compression/pressure bandage, tourniquet

- Still need to know how to use the included tools.
- Tourniquets need training. Choose the right one for your purpose.



Level of Care/Intermediate



Contents: gloves, gauze, compression bandage, tourniquet(s), hemostatic agent



Level of Care/Mass Casualty Response

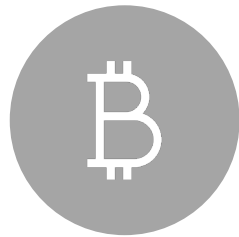
Contents: Multiples of basic/intermediate



Where Do I Buy a Kit?



SO MANY CHOICES



THE VENDORS THAT
COME TO YOUR
EVENTS ARE SERIOUS



GET
RECOMMENDATIONS



IF ITS TOO GOOD OF A
DEAL, IT PROBABLY IS



KITS = BUDGET +
PURPOSE + TRAINING

Summary



- Bleeding must be stopped, all else is secondary
- Kit components are only life saving if used properly
- Know your kit





Kits Need Training



Take a first aid course to fully understand how to use the “things” in your kits

The American Red Cross, Citizen First Aid, First Care Provider, The Health & Safety Institute and The American Heart Association have solid and trustworthy online classes.

For more information visit BleedingControl.org