



**UTSouthwestern**  
Medical Center

**2025 Carolyn P. Horchow  
Women's Health Symposium**

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# Making Basic Life Support Basic

Anezi Uzendu, M.D., FACC  
Assistant Professor of Internal Medicine

Bethany Hutchings  
Emergency Management & Continuity of Operations Manager

# Cardiac Arrest and Cardiopulmonary Resuscitation (CPR)

## Why Does This Matter?

**1,000 cardiac arrests happen each day in the United States**

**Survival is less than 10%**

**Waiting until emergency medical services arrive is too late...**

# I Suffered a Cardiac Arrest at 25



# Teaching Objectives

- **What to Know**

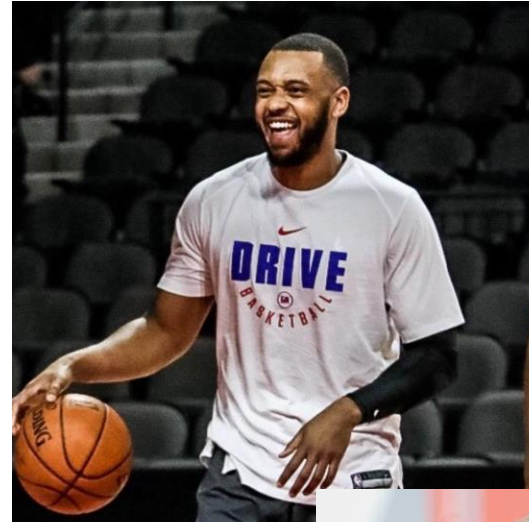
- Cardiac arrest can happen to anyone; everyone needs to know how to save a life!
- Identify Cardiac Arrest: Difference between cardiac arrest and heart attack
- Every minute counts

- **What to Do**

- Call for: 911, help, A.E.D.
- How to perform CPR
  - Depth, Rate, Recoil
- How to use an A.E.D.

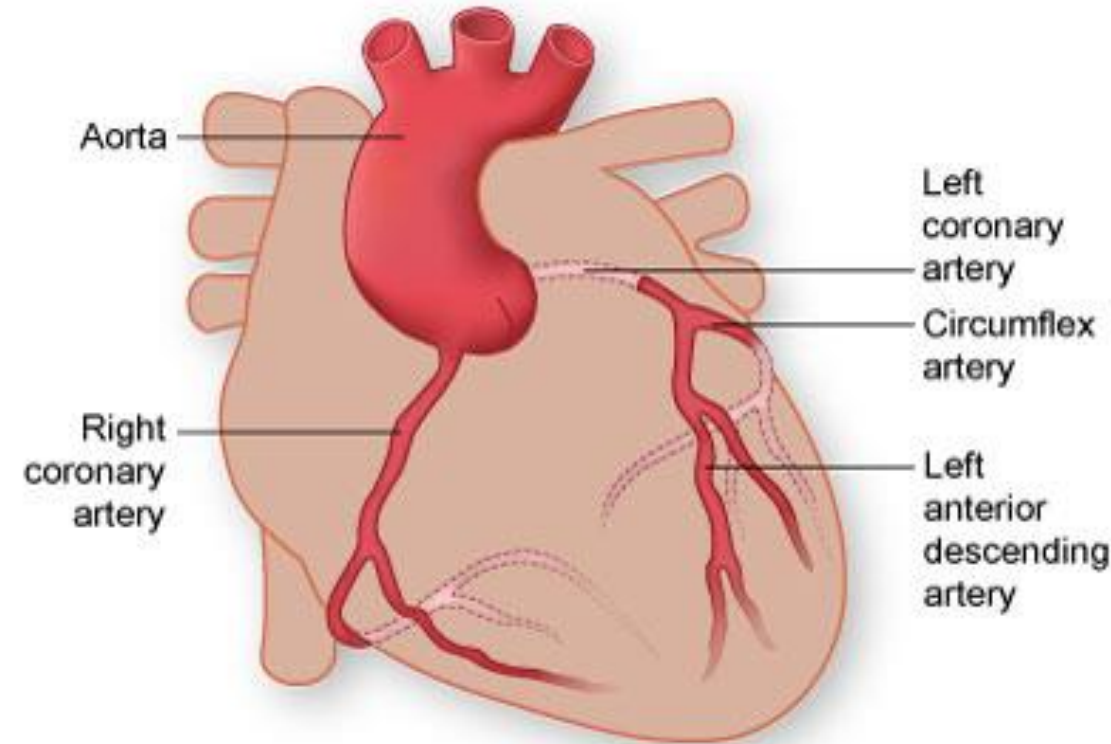


# Cardiac Arrest Can Happen to Anyone at Anytime



# A Heart Attack Is Different – Don't Do CPR

- Abrupt block in one of the arteries supplying the heart
- The portion of the heart supplied by artery damaged but heart still beating
- Chest pain, shortness of breath, sweats
- Awake

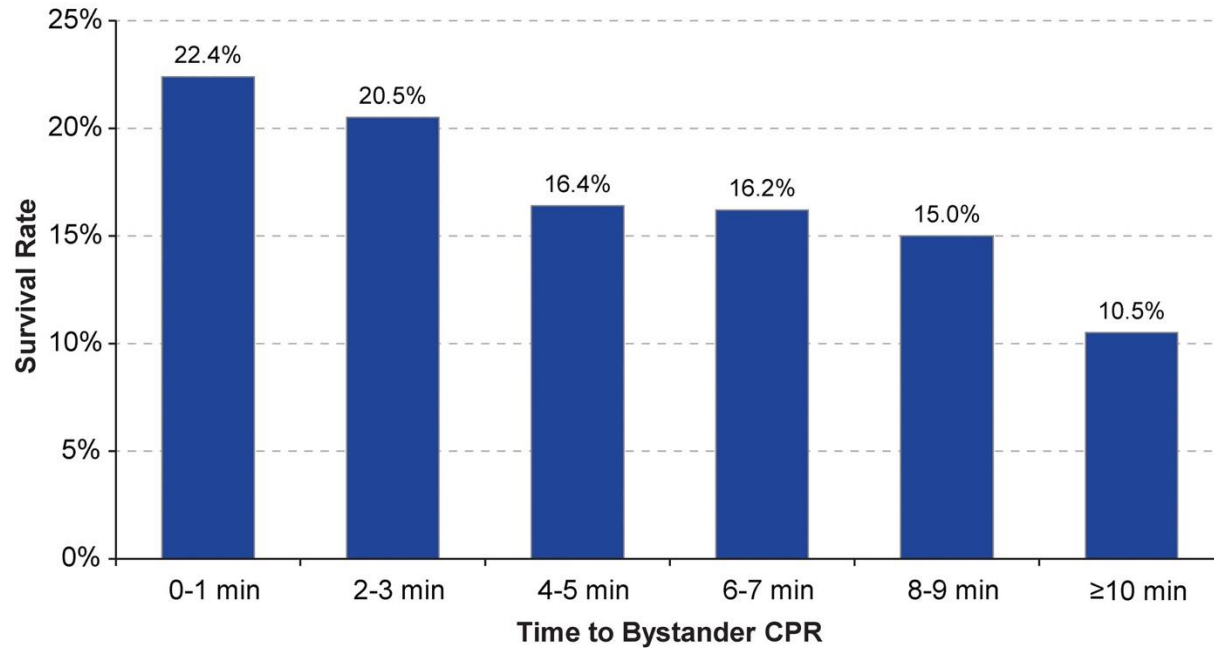


# Cardiac Arrest Symptoms

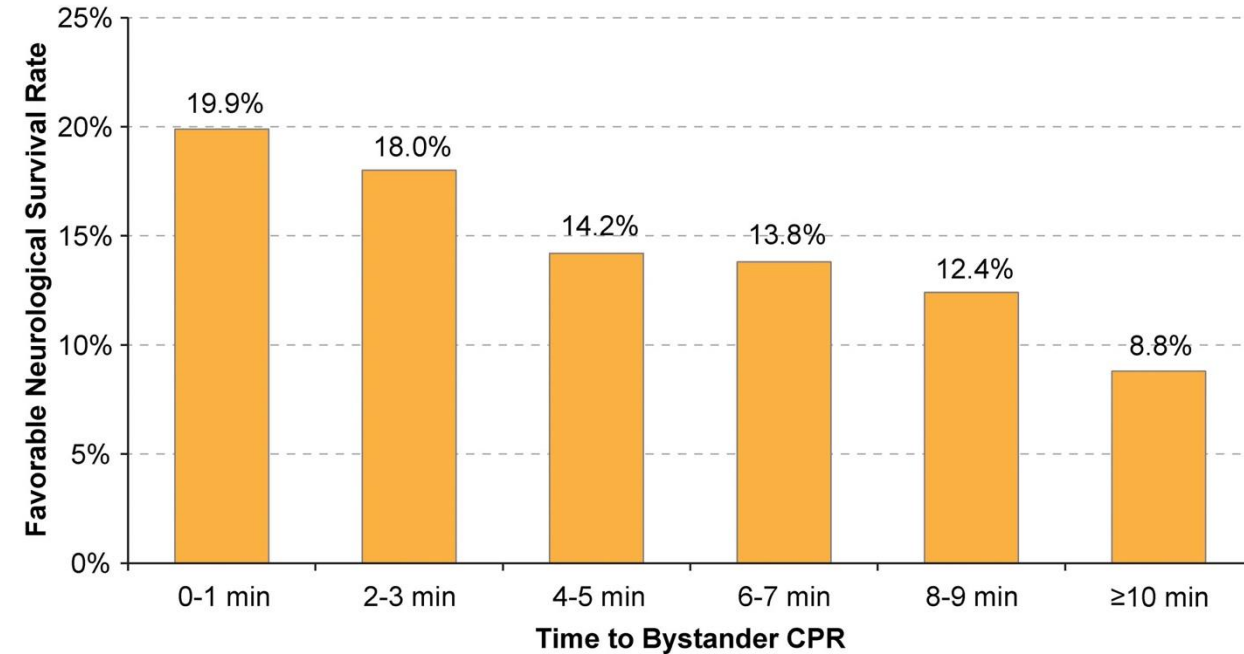
- Unresponsive
- Not breathing or not breathing normally

# Every Minute Delay in CPR Decreases Survival!

**A**



**B**



Nguyen DD, Spertus JA, Kennedy KF, Gupta K, Uzendu AI, McNally BF, Chan PS. Association Between Delays in Time to Bystander CPR and Survival for Witnessed Cardiac Arrest in the United States. *Circulation: Cardiovascular Quality and Outcomes*. 2024;17:e010116. doi: 10.1161/CIRCOUTCOMES.123.010116



# What Is Hands-Only CPR?

**Hands-Only CPR is CPR *without* mouth-to-mouth breaths.**

**Hands-Only CPR just takes two steps to save a life:**



**Call 911.**



**Push hard and fast in the center of the chest.**



American Heart Association.  
**EmPOWERED to Serve™**

**Call 9-1-1 and Get an A.E.D.**

***Choose 2 people and say.....***

***YOU!!  
CALL 9-1-1!!***

***YOU!!  
FIND AN A.E.D.  
AND COME  
RIGHT BACK!!***



# DO:

- 1. Place victim on a hard surface**
- 2. PUSH HARD AND FAST IN THE CENTER OF THE CHEST**



# Use the Heel of the Hand





# Shoulders Over Victim



# Keep Arms Straight



# Proper Depth (2 inches) and Recoil of Chest



# 100-120 Beats Per Minute





# Keep Going Until Help Arrives

Song  
examples at  
100-120bpm

- Stayin' Alive by the Bee Gees
- I Will Survive by Gloria Gaynor

Don't Stop  
Until

- The person wakes up
- EMS arrives to take over

# Automated External Defibrillators

If an A.E.D. is available.....**USE IT!**

Turn it on and listen to the instructions.



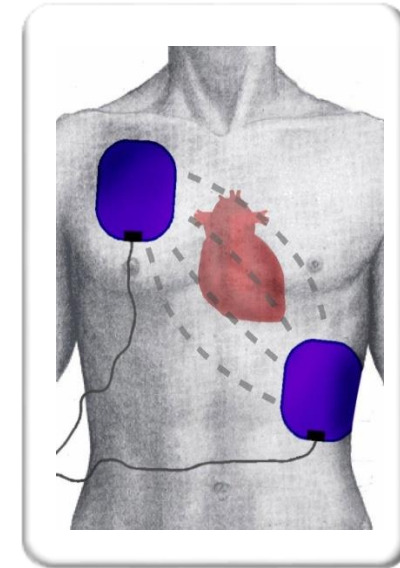
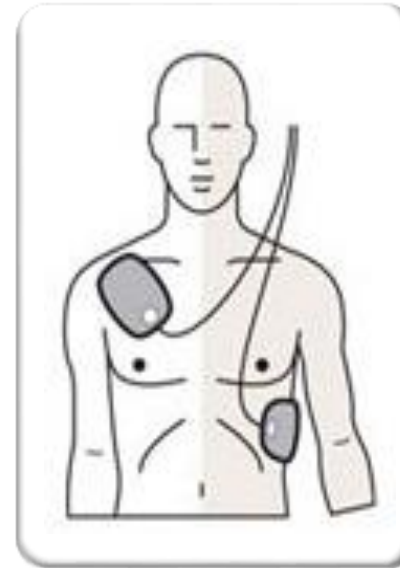
# Automated External Defibrillators

May look different, but they all function the same



## Open and Follow Instructions

- Turn A.E.D. ON
- Apply pads to bare chest
- Plug in pads
- Analyze patient
- Push shock to defibrillate, if directed
- **Immediately resume CPR**



# History of Stop the Bleed

- Program started after Sandy Hook Shooting in Newton, Connecticut in 2012
- Panel of experts convened to evaluate the response to bleeding emergencies



QUALITY PROGRAMS  
of the AMERICAN COLLEGE  
OF SURGEONS

**The American  
College of Surgeons  
Committee on  
Trauma**



**The American  
College of  
Emergency  
Physicians**



**The National  
Association of  
Emergency Medical  
Technicians**



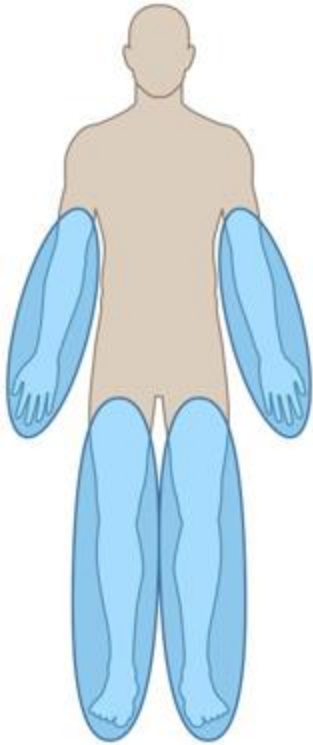
**The Committee  
on Tactical  
Combat  
Casualty Care**



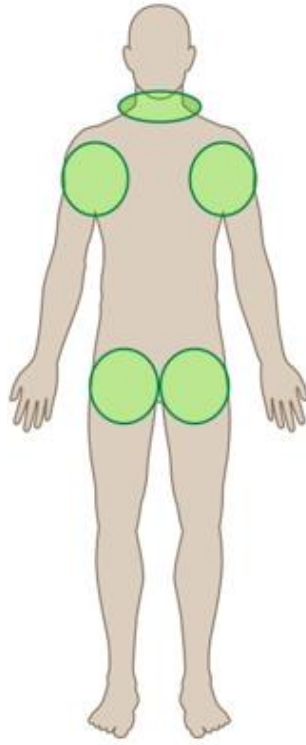
# The Importance of the Number 3

- **3 MINUTES** to bleed out from a life-threatening injury
- **3 WAYS** to bleed out from a life-threatening injury
- **3 METHODS** to stop life-threatening bleeding
- Apply a tourniquet approximately **3 INCHES** above the injury

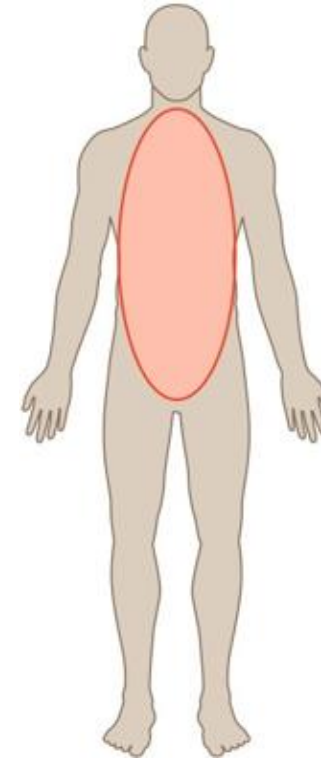
# 3 Ways Someone Can Bleed Out



Arms and Legs



Junctional Areas



Torso

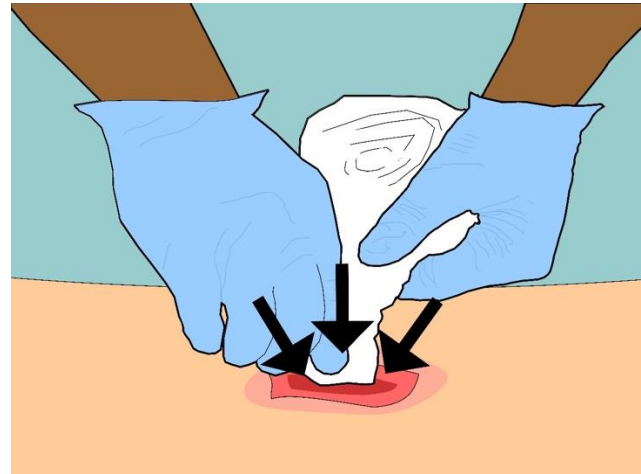
# 3 Methods to Stop the Bleed



## Pressure

Works for:

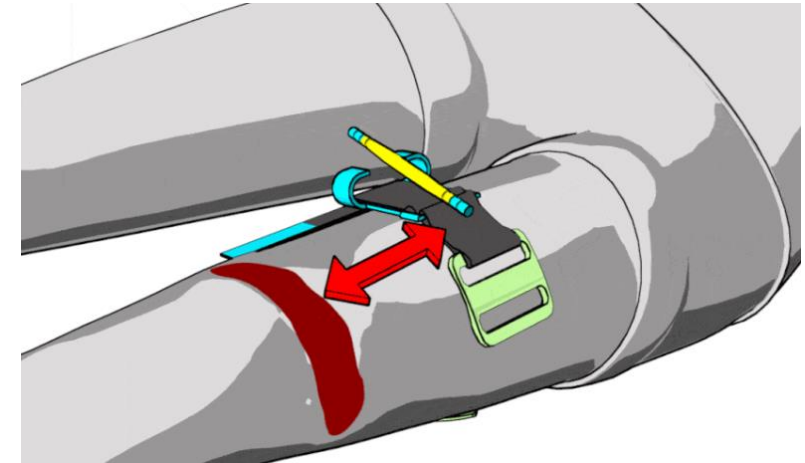
- Arms and Legs
- Junctional areas



## Packing

Works for:

- Arms and Legs
- Junctional areas



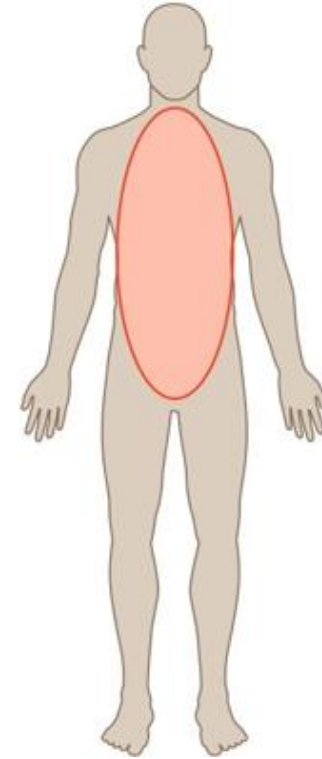
## Tourniquet

Works for:

- Arms and Legs

# Important Note on Torso Injuries

- As an immediate responder, the only way to save the life of someone with a life-threatening injury to the torso is to get the individual to the hospital **as soon as possible**
- Do not delay transport to the hospital for any reason, including attempting one of the Stop the Bleed methods





# Method #1: Apply Pressure

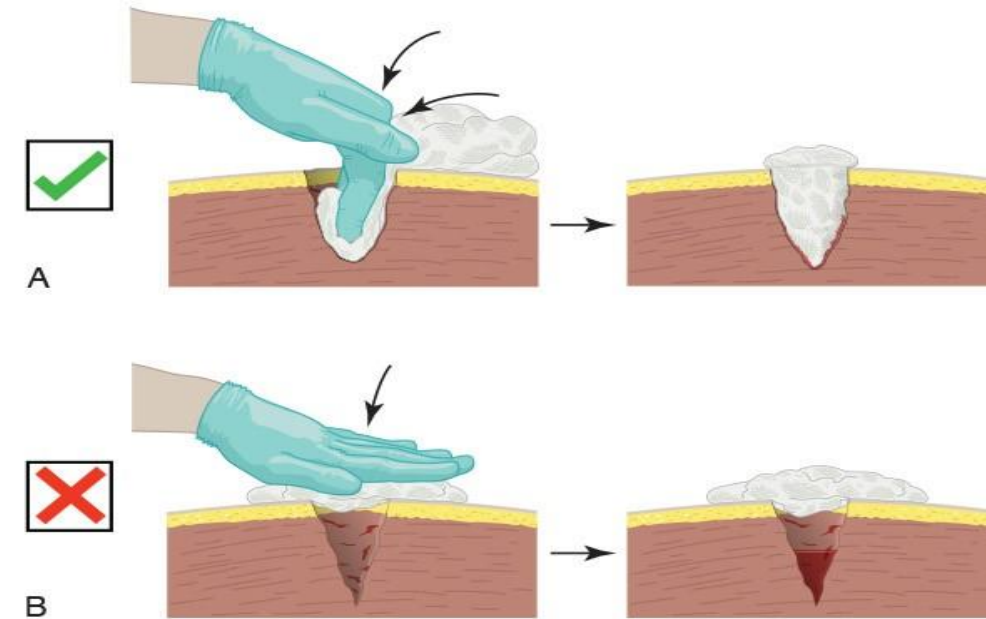
- Use material that's available to apply **firm, direct** pressure
  - Can be a t-shirt, socks, towels, blankets, etc.
  - Immediate responders should not worry about infection risks
- Use gravity to help you hold pressure
  - Can use elbows and knees if your hands get tired
- Keep holding pressure until help arrives



**Reminder:** This method works for arms, legs, and junctional areas

# Method #2: Pack the Wound

- If the wound is large and/or deep, superficial pressure is not effective
- **Pack the wound** tightly with available material until the bleeding stops
- Once the wound is packed, hold pressure until help arrives



**Reminder:** This method works for arms, legs, and junctional areas

# Method #3: Apply Tourniquet

## An Important Note on Tourniquets

- **DO NOT** improvise Tourniquets
- By the time you find supplies to use, figure out how to make it look like an actual tourniquet, and implement it, you are cutting it close to the 3 minutes.
- Must stop 100% of the bleeding to not cause damage

# Method #3: Apply Tourniquet

If you have access to a CAT (Combat Application Tourniquet), it can be used to stop bleeding on arms and legs **ONLY**.



Video demo from [TraumaPAK.com](https://www.TraumaPAK.com)

# Summary

- Pressure and Packing will be successful in controlling bleeding in arm, leg, and junctional injuries
- Tourniquets can only be applied to arm and leg injuries
- Anyone with a life-threatening bleeding torso injury should be transported to the hospital ASAP due to the potential for internal bleeding