

# What could cause Cardiac Arrest

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- Medical Problems
- Genetics
- Choking
- Unknown
- Traumatic Injury

**Source of Blow**

Hockey puck



Lacrosse ball



Baseball



Fist or elbow



**Primary determinants and triggers**

Precordial impact site  
Timed during upstroke of T wave

**Contributing variables**

Greater hardness of projectile  
Smaller sphere  
Direct orientation  
Thinner, more compliant chest wall

Left lung

Rib

Chest wall

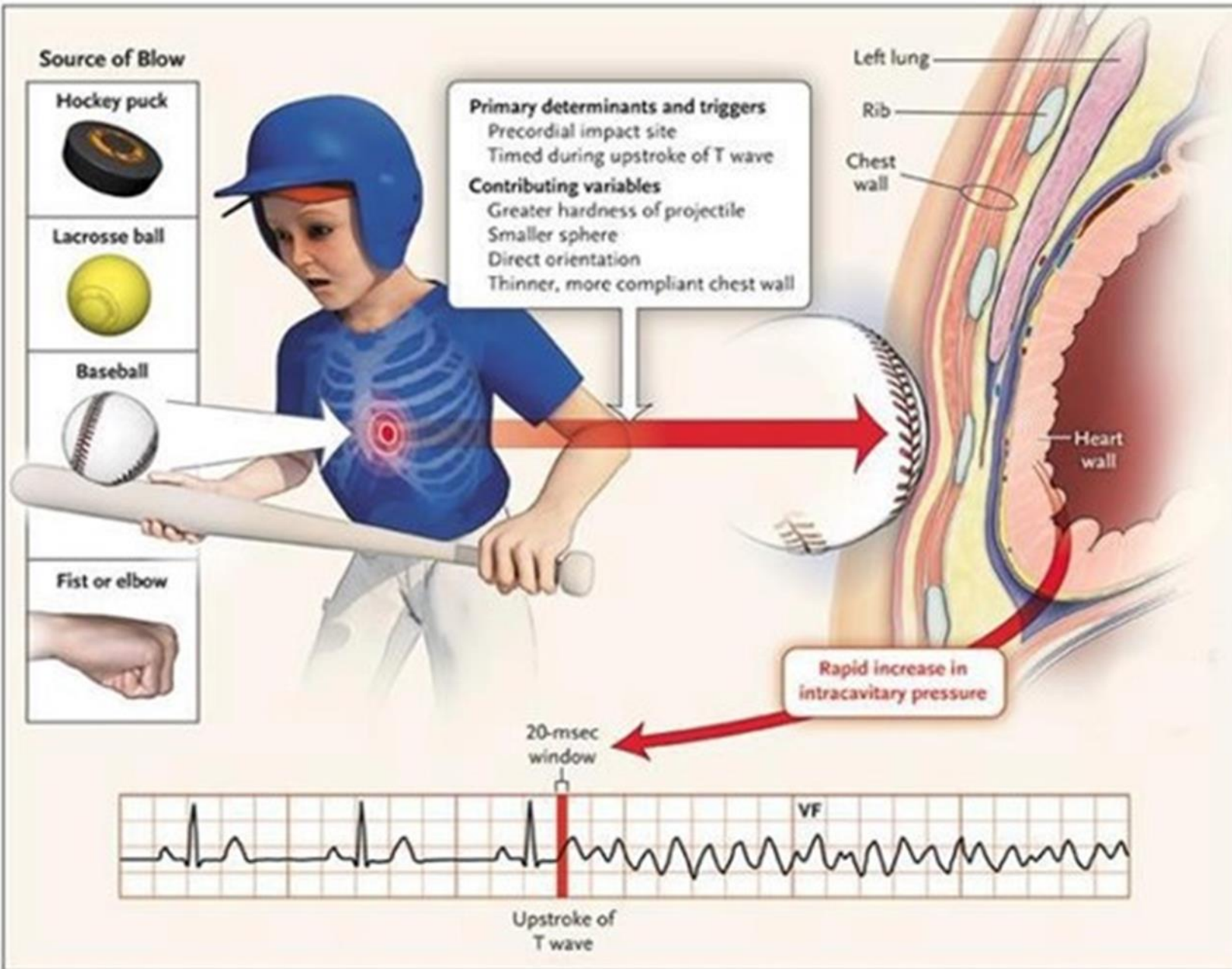
Heart wall

Rapid increase in intracavitary pressure

20-msec window

VF

Upstroke of T wave



# A Shocking Reality

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Louis Acompora – passed away in 2000. His family started the Acompora Foundation.

Every 3 days in  
the US a student  
athlete dies  
from sudden  
cardiac arrest

# Kaitlin Forbes

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Kaitlin went into sudden cardiac arrest while she was in gym class in 2005.

She survived because her gym teacher and school nurse acted immediately. They performed CPR and used an AED.



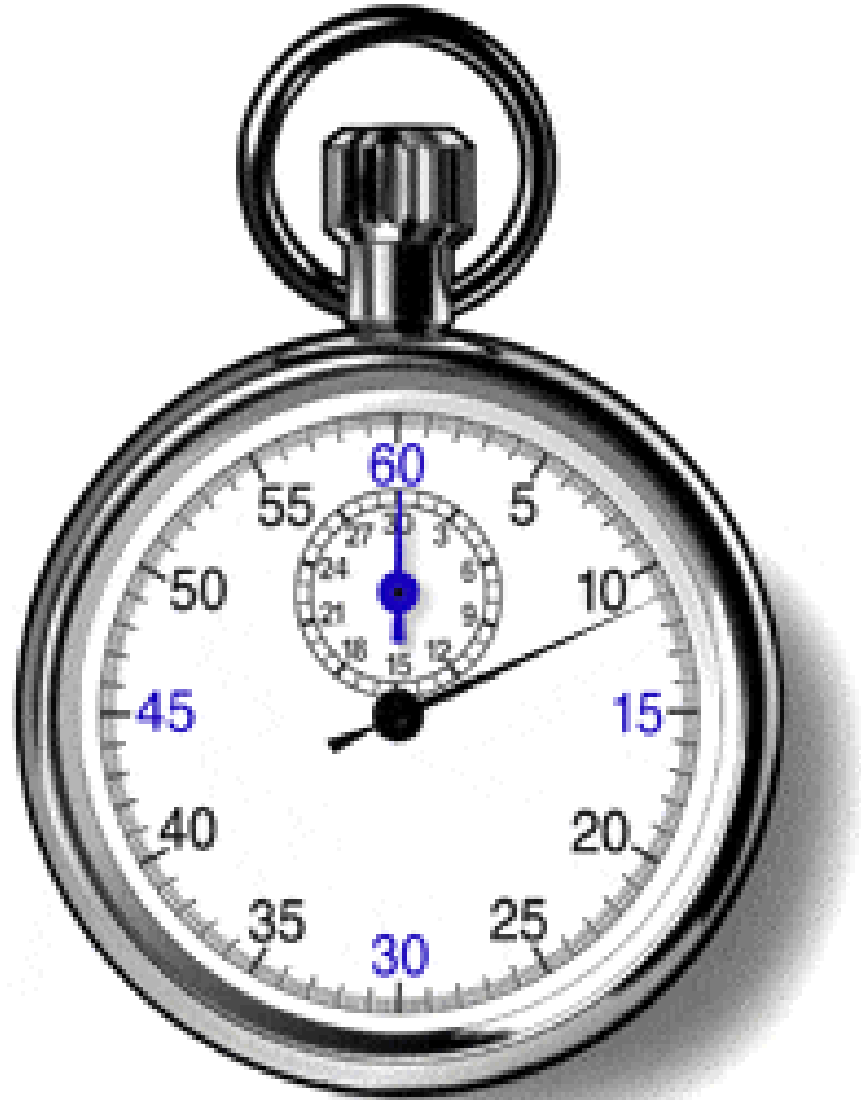


# Breanna Sudano – A Success Story

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The State of Maryland passed Breanna's Law: Starting in 2015, Maryland requires students to become trained in CPR and AED use prior to graduating from a public high school.

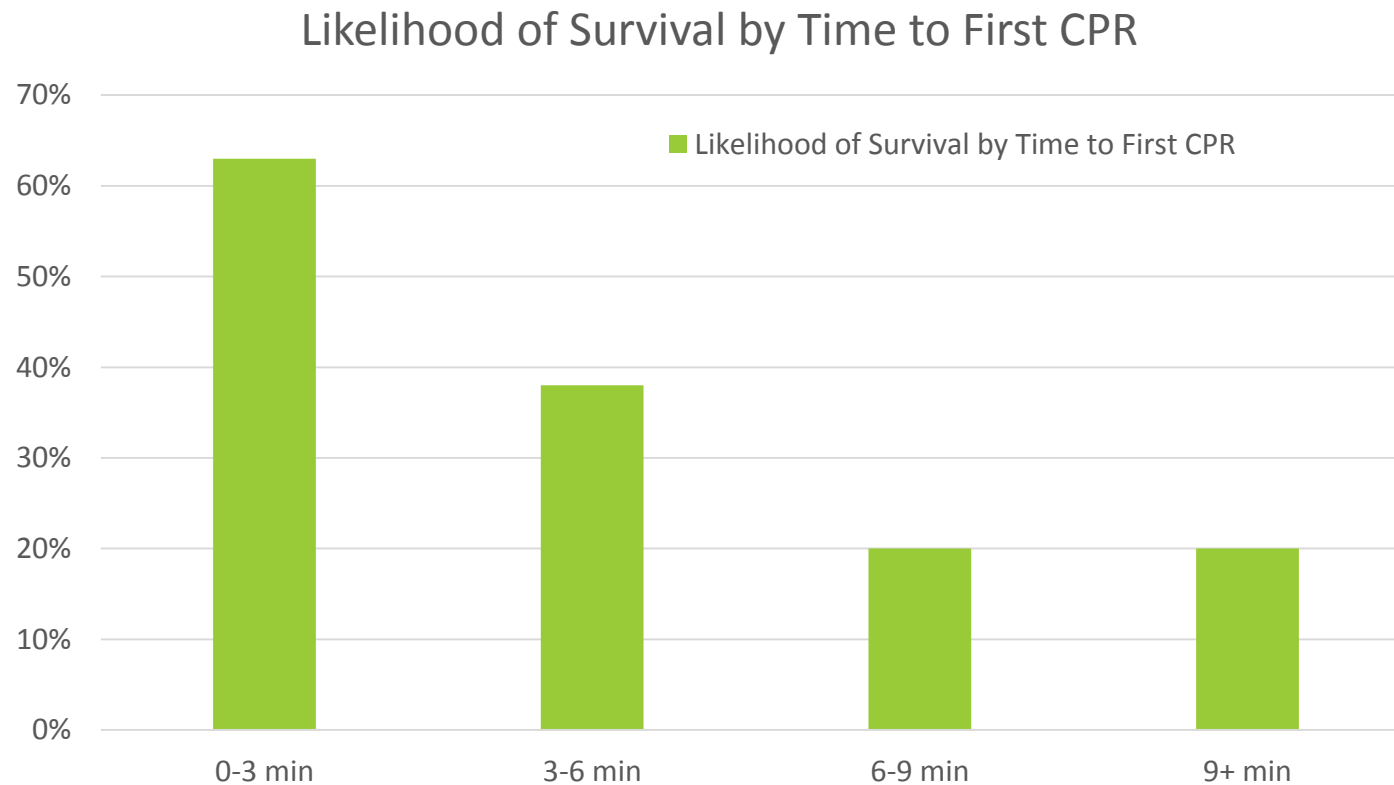




Every minute that passes without CPR decreases a victim's chance of survival by 10%

# The Importance of Time in Howard County Cardiac Arrest Outcomes (2011-2014)

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The best chance for survival is immediate CPR