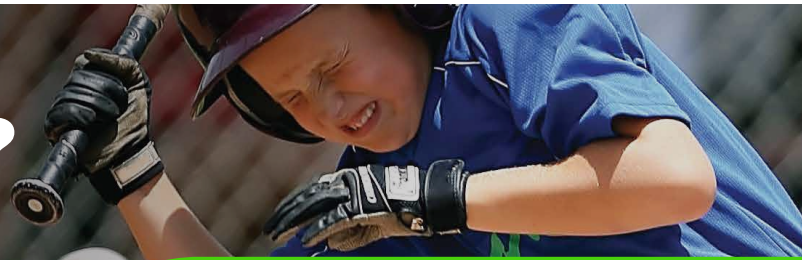




# Do You Know COMMOTIO?

Sudden Death from Commotio Cordis:

**#2 KILLER IN SPORTS**



✓ **Tufts** TESTED

✓ **FDA** REVIEWED

## The FACTS

**What it is?** It's like a concussion of the heart, that kills. A random, non-penetrating blow to the chest wall area near the heart by a ball, bat, stick or hand causes the heart to fibrillate. The heart stops pumping blood. Its occurrence is relatively rare, but when it happens, it is catastrophic.

**Who is at risk?** Millions of boys and girls ages 6 to 18 who play Baseball, Softball, Lacrosse, Hockey, Soccer, Martial Arts, Football, Cricket, Basketball and other contact sports are at risk.

**How often does it happen?** More than we're told. Dozens if not hundreds a year. Even though there are at least 2 registries for keeping track of commotio cordis deaths, they are voluntary, thus under-reporting occurs. There is no official repository of those moments where an athlete recovers after the horrifying minutes of frantic reviving efforts.

**What happens at impact?** If an impact occurs at a very specific time between heart beats, the impact de-synchronizes the heart's rhythm, resulting in a failure to pump blood and, thus, cardiac arrest. Breathing stops. Within about 5 seconds the victim collapses.

**AED's help but...** The increasing presence of expensive AEDs at youth athletic events has helped the survival rate from a commotio event, but AEDs are used after the heart has stopped. Over two-thirds of reported cases result in death despite an AED sometimes being nearby.

**Do chest protectors protect?** Up until now, no. Studies have shown they have been ineffective. In fact, in 30% of the cases of a commotio cordis death, chest protectors were worn.

## The SOLUTION

**There is one company that has successfully applied its patented technology to provably combat Commotio: Unequal.**

- Unequal HART is the world's first technology shown to greatly reduce risk of sudden death from commotio cordis.
- Their line of HART chest and heart protectors contains technology that underwent a year and half study at TUFTS Medical Center, Boston.
- That study was published, peer-reviewed in the Clinical Journal of Sport Medicine in March, 2016 entitled "Development of a Chest Wall Protector Effective in Preventing Sudden Cardiac Death by Chest Wall Impact (commotio cordis)."
- The study concluded: "It is reasonable to expect that chest protector designs incorporating these novel materials (Unequal HART) will be effective in the prevention of commotio cordis on the playing field."
- "I am excited to have played a role in discovering a technology that offers excellent protection against commotio cordis."
  - Mark Link, M.D., Board-certified cardiac electrophysiologist, leading worldwide authority on commotio cordis
- The FDA reviewed the technology and its Indication for Use (IFU) claim for this general wellness product states: "When incorporated into a suitable garment and worn in accordance to instruction, the HART CC (commotio cordis) Pad device has been shown to reduce the mechanical impact received by the chest that may facilitate the reduction in risk of commotio cordis."

## DUTY TO YOUR ATHLETES

- Courts have long recognized the legal duty of coaches, teams, schools, and even athletic administrators to take reasonable steps to provide a safe athletic environment.
- Among other things, this duty has been held to include:
  1. A duty to use only equipment that meets or exceeds standards,
  2. A duty to instruct, warn, and caution participants on the importance and proper usage of protective equipment, and;
  3. A duty to inform participants of the inherent risks associated with specific sports.

- Commotio cordis is no longer an inherent risk of any sport, provided that the now available protection is used. If protection is not used, there is a duty to warn. That duty involves, at a minimum, to warn athletes and their parents of the commotio risk and the existence of safety equipment designed to reduce risk of commotio.

