National Athletic Trainers' Association

NATA Official Statement on Commotio Cordis

According to the U.S. Commotio Cordis Registry, since 1995, 188 athletes have died from blunt force injury to the heart (*commotio cordis*). Of those 188 fatalities, the mean age was 14.7 years and 96% were male athletes according to the Heart Center at TUFTS New England Medical Center. In an effort to educate the public about the potential risks physically active youth can face, the National Athletic Trainers' Association (NATA) recommends that parents and coaches take proactive steps to protect their athletes against c*ommotio cordis*.

Commotio cordis is caused by a blow to the chest (directly over the left ventricle of the heart) that occurs at a certain point of a person's heart beat. The blunt force causes a lethal abnormal heart rhythm called ventricular fibrillation. The force of the blow to the chest is common at speeds of 35-40 mph.

The following suggestions can help prevent *commotio cordis* and keep young athletes safe:

1. Educate coaches, parents, officials, and players in the recognition of the mechanism and the signs and symptoms of commotio cordis.

2. Encourage all coaches and officials to become trained in cardiopulmonary resuscitation (CPR), automatic external defibrillator (AED) use, and first aid.

3. Proper placement and access of automatic external defibrillator (AED) units at athletic facilities.

4. Educate coaches and officials of the need for immediate CPR and AED Care. The longer the delay, the greater likelihood that death may occur.

5. Establish an emergency action plan at all athletic venues. Parents, coaches, and officials should be involved in these plans. (NATA's *Position Statement on Emergency Planning in Athletics* - http://www.nata.org/publicinformation/files/emergencyplanning.pdf - is a useful resource.)

6. Use of sport specific chest protectors during practices and games. *At this time the NATA recommends continued research in this area because current information is limited and not proven to prevent commotio cordis.* However, use of properly fitted, quality chest protectors is recommended to reduce the risk of traumatic chest injury to the athlete.

7. Ensure all athletic protective equipment fits properly and is used as intended by the manufacturer. Require that all protective equipment meet all appropriate standards of governing bodies such as NOCSAE, ASTM, HECC, and PECC.

8. Teach athletes how to protect themselves and avoid being hit in the chest by projectiles such as baseball, lacrosse balls, and hockey pucks. Do not have athletes step in front of a shot to block it.

9. Encourage youth baseball and ice hockey organizations to utilize softer baseballs and pucks. Support research into modified lacrosse balls for youth play.

10. Maintain an even and clean playing surface (field) for all athletes.

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Resources:

Acompora Foundation: www.la12.org

U.S. National Registry for Sudden Death in Athletes: www.suddendeathathletes.org

Tufts – New England Medical Center: www.tufts-nemc.org/medicine/card/commotiocordis.htsm

National Center for Early Defibrillation: www.early-defib.org

Moms Team: www.momsteam.com