

## UIL SUDDEN CARDIAC ARREST AWARENESS FORM

### What is Sudden Cardiac Arrest?

- Occurs suddenly and often without warning.
- An electrical malfunction (short-circuit) causes the bottom chambers of the heart (ventricles) to beat dangerously fast (ventricular tachycardia or fibrillation) and disrupts the pumping ability of the heart.
- The heart cannot pump blood to the brain, lungs and other organs of the body.
- The person loses consciousness (passes out) and has no pulse.
- Death occurs within minutes if not treated immediately.

### What causes Sudden Cardiac Arrest?

- **Conditions present at birth**
  - ***Inherited*** (*passed on from parents/relatives*) **conditions of the heart muscle:**
    - **Hypertrophic Cardiomyopathy** – hypertrophy (thickening) of the left ventricle; the most common cause of sudden cardiac arrest in athletes in the U.S.
    - **Arrhythmogenic Right Ventricular Cardiomyopathy** – replacement of part of the right ventricle by fat and scar; the most common cause of sudden cardiac arrest in Italy.
    - **Marfan Syndrome** – a disorder of the structure of blood vessels that makes them prone to rupture; often associated with very long arms and unusually flexible joints.
  - ***Inherited conditions of the electrical system:***
    - **Long QT Syndrome** – abnormality in the ion channels (electrical system) of the heart.
    - **Catecholaminergic Polymorphic Ventricular Tachycardia and Brugada Syndrome**
      - other types of electrical abnormalities that are rare but are inherited.
  - ***NonInherited*** (*not passed on from the family, but still present at birth*) **conditions:**
    - **Coronary Artery Abnormalities** – abnormality of the blood vessels that supply blood to the heart muscle. The second most common cause of sudden cardiac arrest in athletes in the U.S.
    - **Aortic valve abnormalities** – failure of the aortic valve (the valve between the heart and the aorta) to develop properly; usually causes a loud heart murmur.
    - **Non-compaction Cardiomyopathy** – a condition where the heart muscle does not develop normally.
    - **Wolff-Parkinson-White Syndrome** – an extra conducting fiber is present in the heart's electrical system and can increase the risk of arrhythmias.
- **Conditions not present at birth but acquired later in life:**

- **Commotio Cordis** – concussion of the heart that can occur from being hit in the chest by a ball, puck, or fist.
- **Myocarditis** – infection/inflammation of the heart, usually caused by a virus.
- **Recreational/Performance-Enhancing drug use.**
- **Idiopathic:** Sometimes the underlying cause of the Sudden Cardiac Arrest is unknown, even after autopsy.

## **SUDDEN CARDIAC ARREST AWARENESS Cont.**

### **What are the symptoms/warning signs of Sudden Cardiac Arrest?**

- Fainting/blackouts (especially during exercise)
- Dizziness
- Unusual fatigue/weakness
- Chest pain
- Shortness of breath
- Nausea/vomiting
- Palpitations (heart is beating unusually fast or skipping beats)
- Family history of sudden cardiac arrest at age < 50

**ANY of these symptoms/warning signs that occur while exercising may necessitate further evaluation from your physician before returning to practice or a game.**

### **What is the treatment for Sudden Cardiac Arrest?**

- Time is critical and an immediate response is vital.
- **CALL 911**
- **Begin CPR**
- **Use an Automated External Defibrillator (AED)**

### **What are ways to screen for Sudden Cardiac Arrest?**

- The American Heart Association recommends a pre-participation history and physical including 12 important cardiac elements.
- **The UIL *Pre-Participation Physical Evaluation – Medical History* form includes ALL 12 of these important cardiac elements and is mandatory annually.**
- Additional screening using an electrocardiogram and/or an echocardiogram is readily available to all athletes, but is not mandatory.

### **Where can one find information on additional screening?**

- Check the Health & Safety page of the UIL website (<http://www.uiltexas.org/health>) or do an internet search for “Sudden Cardiac Arrest”.