



SUDDEN CARDIAC ARREST (SCA) AWARENESS FORM

The Basic Facts on Sudden Cardiac Arrest

Website Resources:

American Heart Association:
www.heart.org

Lead Author: Arnold Fenrich, MD
and Benjamin Levine, MD

Additional Reviewers: UIL Medical
Advisory Committee

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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?

Inherited (passed on from family) conditions present at birth 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 present at birth 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 run in families.

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. This is 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 or 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.

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 and 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 14 important cardiac elements.

The UIL Pre-Participation Physical Evaluation – Medical History form includes ALL 14 of these important cardiac elements and is mandatory annually.