Chest Pain in Children

Chest pain is a common complaint among children of all ages. It is rarely due to cardiac disease. It usually needs to be checked to make sure nothing serious is wrong. Children usually can not tell what is hurting in their chest. Commonly they will complain of "heart pain."

SYMPTOMS

Any structure in your child's chest can cause pain. Injury, infection, or irritation can all cause pain. Chest pain can also be referred from other areas such as the belly. It can come from stress or anxiety.

CAUSES

Active children frequently strain muscles while doing physical activities. Chest pain in children rarely comes from the heart. Direct injury to the chest may result in a mild bruise. More vigorous injuries can result in rib fractures, collapse of a lung, or bleeding into the chest. In most of these injuries there is a clear-cut history of injury. The diagnosis is obvious.

Other causes of chest pain include:

- Inflammation in the chest from lung infections and asthma.
- Costochondritis, an inflammation between the breastbone and the ribs. It is common in adolescent and pre-adolescent females, but can occur in anyone at any age. It causes tenderness over the sides of the breast bone.
- Chest pain coming from heart problems associated with juvenile diabetes.
- Upper respiratory infections can cause chest pain from coughing.
- There may be pain when breathing deeply. Real difficulty in breathing is uncommon.
- Injury to the muscles and bones of the chest wall can have many causes. Heavy lifting, frequent coughing or intense exercise can all strain rib muscles.
- Chest pain from stress is often dull or nonspecific. It worsens with more stress or anxiety. Stress can make chest pain from other causes seem worse.
- Precordial catch syndrome is a harmless pain of unknown cause. It occurs most commonly in adolescents. It is characterized by sudden onset of intense, sharp pain along the chest or back when breathing in. It usually lasts several minutes and gets better on its own. The pain can often be stopped with a forced deep breathe. Several episodes may occur per day. There is no specific treatment. It usually declines through adolescence.
- Acid reflux can cause stomach or chest pain. It shows up as a burning sensation below the sternum. Children may not be capable of describing this symptom.

CARDIAC CHEST PAIN IS EXTREMELY UNCOMMON IN CHILDREN

Some of the causes are:

- Pericarditis is an inflammation of the heart lining. It is usually caused by a treatable infection. Typical pericarditis pain is sharp and in the center of the chest. It may radiate to the shoulders.
- Myocarditis is an inflammation of the heart muscle which may cause chest pain. Sitting down or leaning forward sometimes helps the pain. Cough, troubled breathing and fever are common.
- Coronary artery problems like an adult is rare. These can be due to problems your child is born with or can be caused by disease.
- Thickening of the heart muscle and bouts of fast heart rate can also cause heart problems. Children may have crushing chest pain that may radiate to the neck, chin, left shoulder and or arm.
- Mitral valve prolapse is a minor abnormality of one of the valves of the heart. The exact cause remains unclear.
- Marfan Syndrome may cause an arterial aneurysm. This is a bulging out of the large vessel leaving the heart (*aorta*). This can lead to rupture. It is extremely rare.

DIAGNOSIS

For most childhood chest pain you can see your child's regular caregiver or pediatrician. They may run routine tests to make sure nothing serious is wrong. Checking usually begins with a history of the problem and a physical exam. After that, testing will depend on the initial findings. Sometimes chest X-rays, electrocardiograms, breathing studies, or consultation with a specialist may be necessary.

SEEK IMMEDIATE MEDICAL CARE IF:

- Your child develops severe chest pain with pain going into the neck, arms or jaw.
- Your child has difficulty breathing, fever, sweating, or a rapid heart rate.
- Your child faints or passes out.
- Your child coughs up blood.
- Your child coughs up sputum that appears pus-like.
- Your child has a pre-existing heart problem and develops new symptoms or worsening chest pain.

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