

Information Leaflet for Parents/Carers

Chest Pain in Children and Adolescents



This leaflet has been written to give you information on your child's chest pain.

The information in this booklet does not replace the explanations given to you by the cardiac team, but we hope you will find it a helpful guide. If you need any further information or have any questions after reading this leaflet, please ask a member of the cardiac team or your child's consultant.

Chest pain refers to pain felt anywhere in the chest area from shoulder level to the bottom of the ribs.

All about Chest Pain

Whilst it is quite common for children to say that their chest hurts or even that their 'heart hurts' it is rarely caused by heart disease. For many young children the heart is the most definable organ in the chest, so they use this phrase to denote chest pain of any kind.

Most children will complain of chest pain between the age of 7 and their teenage years but in less than 1 in 100 children of all cases will it be caused by an underlying heart condition. Most frequently it is due to a viral illness, stress, or most commonly, pain from muscles and joints.

What are the causes of Chest Pain?

Chest pain can be caused by many things. These causes can be:

- **Muscles, Joints and Bones** – this is normally the case for up to half of all cases and is the most common cause in children and adolescents (sometimes due to long periods playing computer

games leading to poor posture and lack of exercise). It gets worse with movement, coughing or breathing in and the pain is usually localised to one area.

- Respiratory – the chest pain may be due to a persistent cough or asthma.
- Psychogenic – psychological problems such as anxiety and hyperventilation can be the cause of chest pain for some children or adolescents and can often be related to stressful or anxious times.
- Gastrointestinal – problems with digestion, such as acid reflux (heartburn), accounts for a small number of cases of chest pain in children and adolescents. It is typically a burning or sharp pain either centrally or under the breastbone.
- Idiopathic – sometimes no specific cause for chest pain may be found. This is the case for up to half of all children or adolescents with chest pain.
- Miscellaneous – there are many other causes of chest pain (for instance, children or adolescents with sickle cell crisis).
- Cardiac – cardiac causes are the least common cause of chest pain in children. Chest pain due to the heart can sometimes be attributed to inflammation of the heart tissues (pericarditis, myocarditis), heart rhythm problems (arrhythmia), strain on the heart muscle (ischaemia) or floppy heart valves (mitral valve prolapse). In the very rare case where the chest pain is caused by heart disease it will be investigated and managed appropriately. It can get worse over time and is associated with an increase in activity or exercise. Sometimes children who are experiencing chest pain due to their heart can suffer palpitations or collapse. If your child's chest pain is being caused by one of these conditions, you will be given more information about this.
- As chest pain is so rarely from the heart, other causes should be investigated and treated first.

What happens in your appointment?

In your child's clinic appointment the Cardiology Consultant will be assessing your child for rare causes of chest pain in relation to the heart. This assessment involves taking a detailed medical history, undergoing an examination, and having an electrocardiograph (ECG, a recording of the rhythm and electrical activity of the heart). In some cases an echocardiogram (Echo, an ultrasound scan looking at the structure and function of the heart) may be performed. The priorities of the assessment are to firstly exclude rare causes or to provide appropriate treatment and subsequently form a diagnosis and management plan. The focus will be on acknowledging you and your child's fears and providing appropriate reassurance.

The questions that the Consultant might ask are below. Each question has a notes section, so that you can write anything down that might be relevant to answering a question before your appointment:

- 1. Has your child been sick recently?** – Have they had a hacking cough, or frequent coughing strains? Sometimes the rib muscles can cause chest pain.

Notes:

- 2. Has your child been injured recently?** – Intense aerobic exercise or even being hit in the chest playing sport can all strain the rib muscles causing chest pain.

Notes:

3. Is your child stressed? – Stress can induce chest pain. This is harmless but understandably still very worrying as the pain can be severe.

Notes:

4. When and where does it hurt? – Chest pain from non-cardiac causes usually happens both at rest and during activity. Chest pain that happens with moderate to vigorous exercise warrants further investigations.

Notes:

5. How long has it been hurting? – If it has been going on for months it is almost certainly not related to cardiac disease.

Notes:

6. Is there any family history of sudden death or heart muscle disease (cardiomyopathy)? – Family history is very relevant to your Cardiology Consultant so it is important to be aware of anything previous within the family.

Notes:

7. Is there any other medical problems or previous family history? – Is there a history of asthma or any hypermobility problems?

Notes:

What if the tests are negative?

If the tests are negative it is extremely unlikely the pains are due to the heart and other causes should be considered by your General Practitioner (GP) or by a Local Paediatrician.

In the vast majority of children with chest pain the symptoms will eventually go away. Chest pain in children can be frustrating because it often recurs without a specific diagnosis.

In certain circumstances, particularly if the diagnosis is uncertain your Cardiology Consultant may arrange provisional follow-up that can be cancelled should the symptoms resolve.

Please understand that performing these screening tests can never completely rule out a heart problem occurring in the future. However, it is extremely unlikely.

Who can I contact for further advice?

If you would like any further information please contact a member of the Cardiac Nurse Specialist Team on 0121 333 9449. An answer phone message service is available; they will contact you as soon as they are able.

Other Useful Hospital Contact Numbers:

- Heart Outpatient Reception: 0121 333 9402

Parent/Carer Support

- **Children's Heart Federation**

Free Info line: 0808 808 5000

Web: www.chfed.org.uk

- **British Heart Foundation**

Heart Helpline: 0300 330 3311

Web: www.bhf.or.uk

Looking after and sharing information about your child

We have a duty of care to help patients and families understand how information about them is kept and shared and we include the following information in all our patient leaflets:

Information is collected about patients relevant to their diagnosis, treatment and care. We store it in written records and electronically on computer. As a necessary part of that care and treatment we may have to share some patient information with other people and organisations who are either responsible or directly involved in the patient's care. This may involve taking the patient's information off site. We may also have to share some information for other purposes; such as research etc. Any information that is shared in this way will not identify the patient unless we have the patient's and parent's/carer's consent. If you have any questions and/or do not want us to share that information with others, please talk to the people looking after your child or contact PALS (Patient Advice and Liaison Service) on 0121 333 8403.

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