



Information for Patients & Caregivers

What You Need to Know About Anaemias in Children

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Do you know that our blood contains three different types of blood cells that perform different functions?

These are:

- **Red blood cells** help carry oxygen from the lungs to other parts of the body.
- **White blood cells** help fight infections.
- **Platelets** help form blood clots to prevent excess blood loss.

+ WHAT IS ANAEMIA?

Anaemia occurs when there is a deficiency in red blood cells to carry oxygen around the body, or when red blood cells do not function properly.

Red blood cells contain an iron-rich protein called haemoglobin that attaches to oxygen in the lungs and carries it to tissues throughout the body. Anaemia is usually measured in the blood by the level of Haemoglobin.

Most children with anaemia have no symptoms, but if the level of haemoglobin in the blood is very low, the child may experience the following symptoms:

- Tiredness or weakness.
- Shortness of breath.
- Dizziness.
- Fast or irregular heartbeat.
- Headache.
- Looking pale.
- Poor feeding.

Less common symptoms or other symptoms that may be seen depending on the type or cause of anaemia include:

- Chest pain.
- Cold hands and feet.
- Abnormal craving for non-food items such as ice or sand.

The signs and symptoms of anaemia can easily be overlooked. See a doctor if you suspect your child has anaemia.

+ WHAT CAUSES ANAEMIA?

The most common cause of anaemia in children is the lack of iron in the blood. This is known as **iron deficiency anaemia**. Factors that can increase your child's risk of developing iron deficiency anaemia include:

- Diet low in iron.
- Heavy menstrual period in adolescent girls.
- Poor absorption of iron due to gut (intestinal) disease.
- Prolonged bleeding from the gut (intestines).
- Hookworm infection of the gut.

Other causes of anaemia include:

- Lack of certain vitamins such as folic acid and vitamin B12.
- Inherited diseases of the red blood cells such as sickle cell anaemia or thalassaemia.
- Long-standing diseases or infections such as:
 - Kidney disease.
 - Liver or thyroid disease.
- Immunity problems such as autoimmune disease.
- Bone marrow problems

+ WHEN SHOULD YOU SEE A DOCTOR?

See a primary care doctor immediately if your child has any of the following symptoms:

- Tiredness or weakness that has become worse.
- Dizziness or breathlessness.
- Fast heartbeat or chest pain.
- No improvement in symptoms within 2-3 weeks of starting iron treatment.

You should also see a doctor as soon as possible if your child has any of the symptoms of anaemia and they have a long-standing disease.

+ HOW IS ANAEMIA DIAGNOSED?

To make a diagnosis of anaemia your doctor will ask questions about your child's symptoms, diet, and other risk factors and any concerns you have.

Your doctor will examine your child for signs of anaemia. If their symptoms and signs suggest anaemia, your doctor may order some blood tests to confirm the diagnosis.

Anaemia is usually diagnosed when a blood test shows a haemoglobin level less than the normal value for the age of your child.

If anaemia is confirmed, additional blood tests may be necessary to identify the underlying cause of the anaemia. If a complicated underlying cause is suspected, your doctor may refer you to a specialist.

+ WHAT YOUR DOCTOR WILL DO

If anaemia is confirmed on the initial blood test, your doctor may start treatment, especially if iron or vitamin deficiency is the likely cause.

In this case, your doctor should:

- Advise you about your child's diet.
- Prescribe appropriate supplements or medications and discuss any potential side effects.
- Schedule follow-up appointments to monitor your child's treatment.

If your child's anaemia is very severe or has a serious underlying cause, your doctor will refer you to a Paediatric Emergency Centre or an Emergency Department, depending on the age of your child.

+ HOW IS ANAEMIA TREATED?

The treatment for anaemia depends on its underlying cause. However, two main approaches are used:

Replacement treatment: Mainly used to correct anaemia caused by the deficiency of iron, vitamins, or minerals. These include:

- **Iron medicines** such as oral iron supplements which are used to treat anaemia caused by a lack of iron.
- **Vitamin supplements** such as vitamin B-12 injections and folic acid tablets which are used to treat anaemia caused by lack of these vitamins.
- **Blood transfusion** may be used to treat very serious cases of anaemia.

Treatment of the underlying cause of anaemia. These include medicines such as:

- Medication for treating anaemia caused by an immunity problem.
- Antibiotics for treating infections that cause anaemia.

Discuss with your doctor to determine the best treatment options for your child's anaemia.

IMPORTANT TIP

Taking excess iron supplements can be bad for your health. Do not give your child iron pills unless prescribed by a doctor.

+ HOW CAN ANAEMIA BE PREVENTED?

Anaemia caused by iron or vitamin deficiencies can be prevented by:

- Eating iron-rich foods such as beef, dark green leafy vegetables, dried fruits, and nuts.
- Eating foods with a high level of vitamin B-12 such as meat and dairy.
- Food rich in folic acid such as green vegetables, and fortified cereals.
- Do not give your child cow's milk or goat's milk until they are at least 12 months old.
- If your child was born prematurely, they may require iron supplementation. You should ask your doctor about this as this may require the expertise of a specialist to decide if iron supplementation is appropriate.
- Advise your child about good hand hygiene to prevent infection with intestinal parasites that can cause anaemia in preschool and school-age children.

+ FOLLOW UP

If your child has anaemia, they will need to see a doctor regularly for check-ups during treatment.

During these follow-up visits, you can discuss your child's medications with your doctor.

Your doctor may order some follow-up blood tests to assess your child's response to the treatment.

Regular check-ups allow for monitoring of any underlying health condition that is associated with your child's anaemia and provide an opportunity for advice on how to further prevent anaemia.

+ ADDITIONAL INFORMATION

Additional information on the diagnosis and management of anaemias in children can be found in the National Clinical Guideline published by The Ministry of Public Health (MoPH) Qatar.

The Guideline is available to the public from the MoPH website: www.moph.gov.qa.

