Glucose 6 phosphate dehydrogenase (G6PD) deficiency

A parent's guide

What is glucose 6 phosphate dehydrogenase (G6PD)?

G6PD is an enzyme which is found throughout the body. G6PD deficiency is a reduced amount of the enzyme. This can affect the red blood cells.

How is G6PD deficiency discovered?

A specific blood test can measure the G6PD level. It is not a routine test. It is only done if the doctor has reason to believe that your child might have G6PD deficiency when, for instance, a baby is jaundiced (pale and yellow in colour) in the newborn period.

How does a child get G6PD deficiency?

G6PD deficiency is inherited. This means it is passed from one or both parents to the child. It is found in both boys and girls, but usually affects boys more severely. It is found generally in people whose ancestors have come from areas such as the Mediterranean, Caribbean, Africa and South East Asia.

There are many types of G6PD deficiency, but the types found in people from the Mediterranean and South East Asia are usually more severe than those found in other groups.

What does G6PD have to do with the blood?

G6PD is found in red blood cells which carry oxygen to all parts of the body. It helps protect red blood cells. If the amount of G6PD is reduced, some of the red blood cells may be destroyed. Your child may then not have enough red blood cells, leading to them becoming anaemic and lacking in energy.

Deficiency in the unborn child

G6PD deficiency does not cause any problems in the unborn child.

Deficiency in newborn babies

Babies born with G6PD deficiency may be jaundiced in the newborn period. This is likely for baby boys. Jaundice in new-born babies can be successfully treated, by putting the baby under a controlled ultra violet lamp. The jaundice may be worse in premature babies.

Risks for children with G6PD deficiency

Children with G6PD deficiency occasionally have a problem if they:

- eat broad beans
- come into contact with mothballs, or
- take certain medicines, and some common antibiotics.

Always check with your doctor whether certain medicines are safe to take. There is a list at the end of this factsheet.

Your child may have a problem if they:

- feel unwell and lack energy
- become pale and yellow in colour (jaundiced)
- have a backache or
- pass dark coloured urine.

If your child develops any of these symptoms, make an urgent appointment with your doctor. In an emergency go to a hospital accident and emergency department, and take this leaflet with you.

What can be done about G6PD deficiency?

Nothing can be done to correct the G6PD deficiency. However, it need not cause any problems if children avoid:

- the medicines listed below
- broad beans, and
- contact with moth balls.

It is important that your child takes this list of medicines with them every time they visit the doctor or hospital.

List of medicines that sometimes cause problems for children with G6PD deficiency

Medicines for malaria:

- Chloroquine
- Fansidar
- Maloprim (contains Dapsone)
- Pentaquine
- Pamaquine
- Primaquine

Other medicines:

- Aspirin (large doses)
- Chloramphenicol
- Dapsone
- Phenylhydrazine
- Nalidixic acid
- Nitrofurantoin
- Sulphonamides (some)
- Thiazolesulfone
- Vitamin K

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Patient advice and liaison service (PALS)

If you have a compliment, complaint or concern please contact our PALS team on 020 7288 5551 or whh-tr.whitthealthPALS@nhs.net

If you need a large print, audio or translated copy of this leaflet please contact us on 020 7288 3182. We will try our best to meet your needs.

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