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# Red blood cells and G6PD deficiency (children)

## Children's Haemoglobinopathy

Information for Patients

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## What is glucose 6 phosphate dehydrogenase (G6PD)?

- G6PD is an enzyme. It is found in the body. It helps protect the red blood cells.
- G6PD deficiency means the body has less of this enzyme than normal. This mainly affects the red blood cells.

## How do you get G6PD deficiency?

- G6PD deficiency is inherited. This means a child gets it from one or both parents.
- It is found in both men and women. It usually affects men more severely as it is linked to the X chromosome.
- G6PD deficiency is more common in people whose families come from the Mediterranean, the Caribbean, Africa or Southeast Asia.
- There are many types of G6PD deficiency. The types found in people from the Mediterranean and Southeast Asia are usually more severe than the types found in other groups.

## What does G6PD have to do with the blood?

- G6PD is found in red blood cells. These carry oxygen to all parts of the body.
- If you have less G6PD, some of your red blood cells may be destroyed. You may then not have enough red blood cells. This can cause anaemia and make you feel low in energy. When red blood cells break down, they release a coloured substance called pigment. This can make your eyes and skin look yellow (jaundice) and make your pee (urine) very dark.

## Risks for people with G6PD deficiency

People with G6PD deficiency sometimes have a problem if they:

- eat broad beans
- get an infection
- come into contact with mothballs,
- take certain medicines, such as aspirin or disprin, some common antibiotics and some anti-malarial medications.

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

## When should I see a doctor?

You may have a problem if you:

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

If you develop any of these symptoms, make an urgent appointment with your doctor.

In an emergency go to a hospital Emergency Department. Take this leaflet with you.

## What can be done about G6PD deficiency?

We cannot cure G6PD deficiency. However, it should not cause any problems if you avoid:

- the medicines listed below and on the next page
- broad beans
- contact with moth balls.

You must take this list of medicines with you every time you visit the doctor or hospital.

## Medicines that sometimes cause problems for people with G6PD deficiency

### Medicines for malaria:

- Chloroquine
- Fansidar
- Dapsone
- Quinine
- Primaquine
- Hydroxychloroquine

### Other medicines:

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

## Contact details

Clinical Nurse Specialist

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East Midlands Sickle Cell and Thalassaemia Network:

www.emstn.org

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