

# G6PD deficiency

Information for patients & families



Leeds children's  
hospital

caring about children

## Introduction

G6PD (glucose-6-phosphate dehydrogenase) deficiency describes a shortage of an enzyme (chemical) found in the red blood cells. It is very common in certain racial groups, and scientists think there are about 400 million people in the world with G6PD deficiency.

G6PD deficiency does not go away and is a lifelong condition. It is an inherited disease (i.e. passed on from previous generations). You cannot catch it by being in contact with someone else.

It is more common in males and is usually passed on to male children from their mother, even though she has had no symptoms herself. The mother is described as being a carrier of the condition. Your doctor can explain the way in which it is inherited and the tests that can be done to check for the condition.

Most people with G6PD deficiency have a completely normal life as long as they avoid certain foods and drugs. Some people with the condition will get anaemia. Anaemia can make children look pale and have less energy. This may happen after taking one of the drugs or eating the foods listed below, or during an illness such as an infection. Some babies with G6PD deficiency may have jaundice for longer than usual in the first month of life. Jaundice makes the skin look yellow because of the breakdown of red blood cells.

## Signs and symptoms

If your child has G6PD deficiency, they should be checked by a doctor whenever any of the following symptoms develop:

- pale skin (pallor)
- persistent and/or severe tiredness
- dark coloured urine (wee)
- jaundice (yellow skin or eyes).

**If you are worried or concerned please contact:**

***Children's Haematology and Oncology Day Unit***

Monday - Friday 8.30am - 6pm

Tel: 0113 392 7379

***Ward L31***

6pm - 8:30am + Weekends and bank holidays

Tel: 0113 392 7431

## Care at home

In particular your child should avoid the foods, chemicals drugs and on this list:

### *Foods*

- Fava beans - also called broad beans

(If you are not sure, identify the bean before using. The hospital can help)

### *Chemicals*

- Moth balls (naphthalene)
- Methylene blue
- Phenylhydrazine

### *Drugs*

You should always check with your doctor or pharmacist before giving any medication to your child.

Always check the labels of any medications you buy without a prescription.

Be careful about using herbal, naturopathic or other alternative / complementary therapies.

## Particular drugs that can cause haemolysis

*(Additional drugs may be added to this list as increasing evidence emerges – always ensure the current British National Formulary is consulted before a prescription is dispensed for a patient with G6PD deficiency)*

Category of drug	Predictable haemolysis	Possible haemolysis
Antimalarials	Dapsone	Chloroquine
	Pamaquin	Hydroxychloroquine
	Tafenoquine	Quinidine
	Methylene blue	
Analgesics/antipyretic	Phenazopyridine	Aspirin (high doses)†
		Paracetamol (Acetaminophen)
Antibacterials	Cotrimoxazole	Sulfasalazine
	Sulfadiazine	
	Quinolones‡	
	Nitrofurantoin	
Other	Rasburicase	Chloramphenicol
	Toluidine blue	Isoniazid
	Niridazole *	Ascorbic acid
	Pegloticase	Glibenclamide
		Vitamin K (Menadione)
		Isosorbide
		Dinitrate
		Methyldopa
		Hydralazine
		Procainamide
	Some anti-cancer drugs	

\*Not on UK market.

†Acceptable up to a dose of at least 1 g daily in most G6PD-deficient individuals.

‡Including ciprofloxacin, moxifloxacin, nalidixic acid, norfloxacin and ofloxacin.

Example of card template to be carried by a patient with G6PD deficiency from BSH guidelines website:

<https://b-s-h.org.uk/guidelines>

This card should be shown to the doctor if you need medical treatment

Name .....

The bearer of this card has  
A DEFICIENCY OF RED CELL G6PD\*  
(Glucose-6-phosphate dehydrogenase)

Issued by:  
Doctor's Signature .....

Date .....

In case of difficulty contact:  
Doctor .....

Telephone .....

\* See over for further details

Glucose-6-phosphate dehydrogenase deficiency

Enzyme level ..... Normal range .....

Some of the common drugs and chemicals that may cause haemolysis of the red cells in patients with G6PD deficiency are listed below:

Ascorbic acid	Methylene blue	Primaquine
Aspirin (high doses)	Menadione	Quinine
Chloramphenicol	Naphthalene	Quinolones*
Chloroquine	Nitroazole	Rasburicase
Cotrimoxazole	Nitrofurantoin	Sulfadiazine
Dapsone	Pamaquin	Sulfasalazine
Dinitrate	Paracetamol	Tafenoquine
Glibenclamide	Pegloticase	Toluidine blue
Isoniazid	Phenazopyridine	Vitamin K
Isosorbide	Phenylhydrazine	

\* including ciprofloxacin, moxifloxacin, nalidixic acid, norfloxacin and ofloxacin

Laboratory diagnosis of G6PD deficiency. A British Society for Haematology Guideline on behalf of David Roper, Mark Layton, David Rees, Chris Lambert, Tom Vulliamy, Barbara De la Salle, Carol D'Souza, the British Society for Haematology First published: 28 January 2020

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## Key things to remember

G6PD is an inherited condition and cannot be spread from one person to another.

Most people with G6PD deficiency have a completely normal life as long as they avoid certain foods and drugs.

Some people with the condition will get anaemia or jaundice, especially after taking medicine or eating food they should avoid, or after an infection.

Give copies of this factsheet to other people who care for your child (e.g. school, nursery, crèche, babysitters) and take it with you when you visit your GP.

## Useful contacts

### G6PD Deficiency Association

<https://www.g6pd.org>

### Children's Haematology and Oncology Day Unit

Level C, Clarendon wing, Leeds Children's Hospital at Leeds General Infirmary

**Reception:** 0113 392 7179 (To re-arrange, cancel or check appointments)

**Nurses:** 0113 392 7379 (For medical advice)

**Unit Manager:** Michelle Kite, 0113 392 2067

### Ward L31

Level A, Clarendon Wing, LGI

**Tel:** 0113 392 7431

### Clinical Nurse Specialist for Sickle cell and Thalassaemia

Ben Sykes

**Tel:** 0778 726 6096

**Email:** [benjamin.sykes@nhs.net](mailto:benjamin.sykes@nhs.net)

Suzie Preston

**Tel:** 0777 522 8860

**Email:** [suzanne.preston1@nhs.net](mailto:suzanne.preston1@nhs.net)

Rebecca Young

**Tel:** 0776 5743163

**Email:** [rebecca.young30@nhs.net](mailto:rebecca.young30@nhs.net)



## What did you think of your care?

Scan the QR code or visit [bit.ly/nhsleedsfft](https://bit.ly/nhsleedsfft)

*Your views matter*



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