Public Health England

NHS

NHS Sickle Cell and Thalassaemia Screening Programme

Know the facts: sickle cell and screening

Public Health England leads the NHS Screening Programmes

Sickle cell disease

Sickle cell is a serious blood disease. It is one of the most common diseases in the world that is passed through families.

It affects the way blood carries oxygen around the body. In people with sickle cell disease, red blood cells sometimes become stiff and get stuck when they try to go through veins.

That's why people with sickle cell disease can have very serious pain and will sometimes need medicines to help with it. They will also need medicines to protect against infection all their lives.

How do you get sickle cell disease?

You can't catch sickle cell disease like you catch a cold – it is passed from parents to children through genes.

People can only get sickle cell disease if they inherit 2 unusual genes – one from their father and one from their mother.

Asha and Benjamin are both healthy – neither of them actually has sickle cell disease. But because they both have one unusual gene, baby Rose does have the condition.

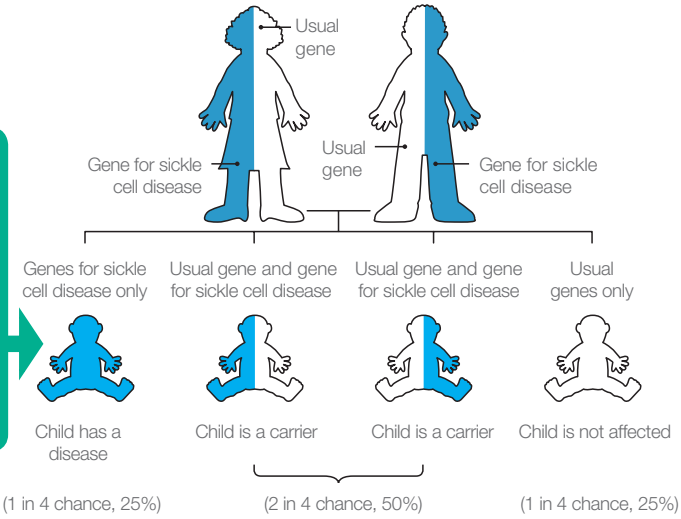
We call Asha and Benjamin ‘carriers’. People who are carriers are well in themselves.

But they can pass on the unusual gene to their children. Each time Asha and Benjamin have a baby, there is a 1 in 4 (25%) chance that their baby will inherit sickle cell disease. Their next child could have sickle cell disease as well or be a carrier or be completely free from sickle cell.

The picture below shows how they passed on the condition to Rose.

Genes are the code that controls your body. For example, your genes control the colour of your eyes, how tall you are – even if you have a beautiful smile!

Rose has inherited 2 genes for sickle cell disease and so has the condition



In every pregnancy Asha has with Benjamin there is also a:

- 1 in 4 (25%) chance that the baby would inherit 2 usual genes and so be completely free from sickle cell disease
- 2 in 4 (50%) chance that the baby would inherit one usual gene and one gene for sickle cell disease and so be a carrier

How do I get tested?

The test for sickle cell is to find out if you are a 'carrier' – if you carry one unusual gene. If you are a carrier, there is a chance you could pass on the unusual gene when you have a baby. Because carriers are generally healthy, you will not know if you are a carrier unless you have the test.

It is a simple blood test that takes just a few minutes. Just ask your family doctor (GP) or your local sickle cell centre. All pregnant women and newborn babies in England are offered a test for sickle cell. But it is a good idea to know if you are a carrier before you decide to have a baby. If you are already pregnant you should have the test before 10 weeks.

About 240,000 people 'carry' the sickle cell gene in England.

For more information speak to your GP or visit www.nhs.uk/sct.

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More information about sickle cell and thalassaemia screening: www.nhs.uk/sct

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