

## Carrying Haemoglobin S (Sickle Cell)

### **(Also known as being AS, or having sickle cell trait)**

- A carrier of Haemoglobin S is a healthy person.
- Carrying Haemoglobin S does not weaken them physically or mentally.
- They do not need any medical treatment because they carry Haemoglobin S.

### **What does it mean to carry Haemoglobin S?**

Haemoglobin S is one of many possible variations in the blood called haemoglobin gene variants, or haemoglobin variants.

Haemoglobin is what makes blood red. Carriers of Haemoglobin S have both the usual haemoglobin (Haemoglobin A) and the unusual haemoglobin called Haemoglobin S.

A carrier will always be a carrier and no-one can catch it from them. They inherited Haemoglobin S from one of their parents and could pass it on to their children.

Anyone can carry Haemoglobin S. It is very common among people who originate from Africa, including African Americans and African Caribbeans and in parts of the Middle East and India. It also occurs in people who originate from Portugal, Italy, Greece, Cyprus, Turkey or North Africa. It is found occasionally in North Europeans.

### **Can carrying Haemoglobin S cause any health problems?**

Carrying Haemoglobin S is not an illness and will never turn into an illness. In fact, carriers are less likely than other people to catch malaria. Carriers can eat what they want and do any kind of work they choose.

### **Could a carrier of Haemoglobin S have children with a serious haemoglobin disorder?**

Only if their partner also carries a haemoglobin variant.  
With medical help, such a couple can have healthy children.

### **What should a carrier do if they are thinking of having children?**

They should tell their partner that they carry Haemoglobin S and ask him or her to have a blood test "for haemoglobin disorders". This test should be done before they start a pregnancy or as soon as possible once a pregnancy has started. Their GP can arrange it.

If their partner is not a carrier, there is nothing to worry about.

### **What should they do if their partner is also a carrier?**

They should ask their GP for an immediate appointment with a specialist counsellor. This is particularly important if they have already started a pregnancy. They can also contact the counselling service directly.

### **Is there anything else that a carrier should do?**

If a carrier has brothers or sisters or already has children, they need to know that they may also carry Haemoglobin S. They should ask their GP or practice nurse for a blood test “for haemoglobin disorders”.

### **Further useful information**

The NHS Screening Programmes website publishes a number of leaflets for patients about haemoglobin disorders, one of which is about being a sickle carrier. They are available at: [Screening in pregnancy: information leaflets - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/publications/screening-in-pregnancy-information-leaflets)

Key words: Haemoglobin S, haemoglobin variant, carrier