

# R<sub>0</sub> Donors

## Why your blood group matters for patients with Sickle Cell Disorder



# GIVE BLOOD

### What does blood group mean?

Red blood cells carry oxygen throughout your body. Your blood group is determined by specific markers (called antigens) on these red blood cells. When someone says they are 'A Positive', it means their blood has the A antigen and the Rh D antigen. According to the International Society of Blood Transfusion (ISBT), there are 47 different blood group systems and over 350 blood group antigens.

### Why do we have different blood groups?

Blood groups are inherited from your parents, just like hair or eye colour. Certain blood group combinations are more common in different ethnic backgrounds.

### What does blood matching mean?

Every blood donation is tested to confirm the donor's blood group. This information is recorded and labelled on the blood products.

Patients who need transfusions are also tested for their blood group and for any antibodies they may have. Most transfusions are matched by the ABO group (A, B, AB or O) and Rh D (positive or negative). Patients who receive frequent transfusions often need additional matching to reduce the risk of complications.

### Helping Scotland's patients

People with conditions such as Sickle Cell Disorder or Thalassaemia often need regular transfusions. If their blood does not match closely, they can develop antibodies, making future transfusions more complex and risky.

To prevent this, these patients receive blood that is carefully matched for additional markers beyond ABO and Rh D.

### What is SCD?

Sickle Cell Disorder (SCD) is an inherited condition that mainly affects people of African,

Afro-Caribbean, Arab or Asian heritage. It causes chronic anaemia and can lead to severe pain and serious complications such as stroke. Blood transfusion is a vital part of treatment. Some patients need up to 10 units of blood every 6-8 weeks to stay well. Visit the Sickle Cell Society for more information at [www.sicklecellsociety.org](http://www.sicklecellsociety.org)

### What is the R<sub>0</sub> blood group?

R<sub>0</sub> is a specific Rh blood group type. It includes the markers D, c and e, but not C or E. R<sub>0</sub> type occurs in people from all ethnic backgrounds but is more common among people of African, Caribbean heritage.

D-positive Haplotypes	D-negative Haplotypes
R1: DcE	r <sup>+</sup> : dCe
R2: DcE	r <sup>+</sup> : dCE
R0: Dce	r: dce
Rz: DCE	r <sup>Y</sup> : dCE

• [www.bbgu.org/2016/05/13/rh-blood-group-terminology](http://www.bbgu.org/2016/05/13/rh-blood-group-terminology)

• [www.haemmatch.co.uk/blood-transfusion](http://www.haemmatch.co.uk/blood-transfusion)

### Why do you need more R<sub>0</sub> blood donors?

There are not enough R<sub>0</sub> donors in Scotland. Without them, it is harder to provide safe, well-matched blood for patients who need it most.

### How can you help?

The Sickle Cell Disease patient population in Scotland is growing. If you have R<sub>0</sub> blood, your donation can make a life-saving difference - especially for people with Sickle Cell Disorder. Have a look at our website at [www.scotblood.co.uk](http://www.scotblood.co.uk) for more information and to book an appointment. Alternatively, give us a ring on 0345 90 90 999 (Mon-Fri, 9am-5pm)

### Patients in Scotland cannot thank you themselves.

On their behalf, thank you.

