

## Patient information

# Protein C Deficiency

### Haematology Liverpool

#### What is Protein C?

It is a name given to one of the natural anticoagulants in the blood. Protein C is made by the liver, it regulates blood clotting by blocking other proteins in the blood that promote coagulation. When you lack protein C your risk of developing a blood clot is increased.

#### Causes of Protein C deficiency

Protein C is a rare genetic condition. If one parent, has it then there is a 50:50 chance of you having it. It is extremely rare for both parents to have the condition however if this is the case it is known as Homozygous. Babies born with this will need anticoagulation to keep them free from thrombosis.

#### There are cases where protein C is not inherited these are:

- Vitamin k deficiency.
- Liver failure.
- Disseminated intravascular coagulation (DIC).
- Sepsis.
- Warfarin therapy.

#### Testing for protein C Deficiency

It is a blood test taken from a vein and sent to your hospital's lab. This test can only be done in specific settings so check with your health care professional the most appropriate place to have this done. The blood test looks for amount of protein C that is working in the blood and produce a level. You will be booked into clinic to give you the results of these tests. They can take several weeks to come back.

#### Protein C and blood clots

The risk of a Deep vein Thrombosis (DVT) and Pulmonary Embolism (PE) is increased if you have a protein C deficiency, however this risk level varies from patient to patient.

Each family will have a different level of mutation. If Your family carries the gene but nobody has developed a blood clot, then your risk will be low. If your family carries the gene and each family member has gone on to develop a blood clot, then your risk will be high.

### **Along with protein C deficiency there are other factors that will increase your risk to develop a blood clot**

- Smoking.
- Obesity.
- Immobility.
- Having an operation.
- Cancer diagnosis.
- Pregnancy.
- Oral contraceptive pill.
- Hormone therapy replacement.

### **Protein C deficiency and pregnancy**

If you have a protein C deficiency and become pregnant is important that you inform your midwife. They may be a risk of VTE and a slightly increased risk of placental problems during pregnancy.

### **Should family members be tested**

Testing is recommended for close blood relatives e.g., brothers and sisters as there is a 50:50 chance they will inherit the condition. We do not normally test children under the age of 13 as most thrombophilia disorders do not present until adult life.

### **How is protein C deficiency treated?**

Once you have had a confirmed diagnosis of protein C deficiency you will be treated in the following way

**No anticoagulation-** The majority of people do not require any treatment unless you are in a high-risk period of your life E.g., surgery, Pregnancy, Flying. This will be assessed on an individual patient basis by a health professional

**Anticoagulation-** If You have had a blood clot or thrombotic event. A specific anticoagulation will be chosen for you by your health professional.

### **Feedback**

Your feedback is important to us and helps us influence care in the future. Following your discharge from hospital or attendance at your outpatient appointment you will receive a text asking if you would recommend our service to others. Please take the time to text back, you will not be charged for the text and can opt out at any point. Your co-operation is greatly appreciated.

## Further information

### Haematology Liverpool Patient Line

Tel: 0151 706 3397

Text phone number: 18001 0151 706 3397

### External Websites

[www.thrombosisuk.org](http://www.thrombosisuk.org)

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