What is prothrombin?
Prothrombin is one of the blood clotting factors, the condition known as prothrombin G20210A is due to a mutation of the prothrombin gene. It tends to cause blood to become “stickier”, due to higher levels of prothrombin.

How does the problem come about?
Prothrombin G20210A is an inherited condition. If one parent has the faulty gene there is a 50:50 chance that a child will inherit it. Very rarely both parents will have the faulty gene.

Prothrombin G20210A and venous thrombosis
Venous thrombosis means blood clots developing in the veins – usually deep vein thrombosis of the leg and more rarely in the lungs – pulmonary embolism.

People with the prothrombin G20210A mutation have a slightly increased risk of blood clots, which can be higher if there are also hereditary risk factor such as: Factor V Leiden or Protein S deficiency present. The large majority of people with the mutation will never have a problem. Prothrombin G20210A mutation is not associated with blood clots in the arteries which cause the majority of heart attacks, strokes and peripheral vascular disease (thrombosis in leg arteries).

How do I reduce the risks?
- Lead a physically active life
- Eat a healthy diet and avoid becoming overweight
- Avoid smoking
- Avoid long period of immobility
- Seek advice before major surgery or when likely to be immobile for long periods.
Women with prothrombin G20210A should also seek medical advice before:
- Taking the oral contraceptive pill.
- Hormone replacement therapy.
- When or if they become pregnant.
- When undergoing major surgery.

Testing for prothrombin G20210A
Testing is not recommended routinely for close blood relatives of people with prothrombin G20210A.

Children are not usually tested until they are able to understand the reasons for the tests being performed.

If you have any questions about the information in this leaflet, please contact:

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For further assistance or to receive this information in a different format, please contact the department which created this leaflet.