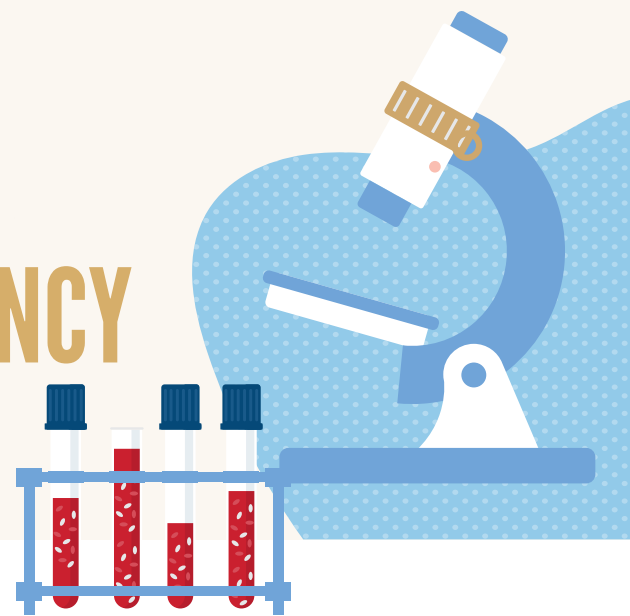


ANTITHROMBIN DEFICIENCY AND PREGNANCY



This guide explains antithrombin deficiency in simple words. It covers what it is, the risk of blood clots, how it can affect your baby's growth, and what genetic testing options exist for the future.

WHAT IS ANTITHROMBIN DEFICIENCY?

Antithrombin is a protein in your blood. Its job is to stop clots from forming when they are not needed. Think of it as a natural brake on the clotting system.

If you have antithrombin deficiency, you do not have enough of this protein, or the protein does not work as well as it should. This means your "brake" is weaker, and blood clots can form more easily than normal.

Antithrombin deficiency is usually inherited. This means it is passed down through families, from a parent to a child.

THROMBOTIC RISK (BLOOD CLOTS)

Antithrombin deficiency is one of the more serious types of thrombophilia. This means the risk of a blood clot is higher than with some other types.

Pregnancy and the weeks after birth already raise the chance of a clot for everyone, because the body naturally makes blood clot more easily to prepare for delivery. Antithrombin deficiency adds further risk on top of this.

Because of this, most women with antithrombin deficiency are offered blood-thinning injections (heparin, often low-molecular-weight heparin, or LMWH) during pregnancy and for some weeks after birth. Some women may also need a concentrated form of antithrombin, given directly, around the time of labour or a caesarean birth, to give extra protection at this higher-risk time.

Heparin works by boosting the action of antithrombin. Because your antithrombin is low, or not working as well as it should, this effect can be weaker than usual, so you may need a larger dose of LMWH to get enough protection.

To check the dose is right, doctors usually monitor your blood using a test called an anti-Xa level. This is a simple blood test that shows how well the heparin is working in your body, and helps your care team adjust your dose if needed.

SIGNS OF A BLOOD CLOT

get help straight away
if you notice:



Pain, swelling, redness, or warmth in one leg



Shortness of breath, or fast breathing



Sudden chest pain



A fast heartbeat



Coughing, especially with blood



Feeling dizzy or faint or pass out

EFFECTS ON THE BABY'S GROWTH

Antithrombin deficiency has also been linked to a higher chance of the baby growing a little more slowly than expected later in pregnancy. This is sometimes called fetal growth restriction.

This is usually a minor effect, and does not happen to every baby. To keep an eye on this, you will likely be offered extra growth scans later in pregnancy, so your care team can check the baby is growing well and getting enough blood flow through the placenta.



GENETIC TESTING AND FAMILY PLANNING

Because antithrombin deficiency is inherited, there is a chance of passing the gene change on to a child. For most types of antithrombin deficiency, each child has around a 1 in 2 (50%) chance of inheriting it from an affected parent.

If you know the exact gene change that causes your antithrombin deficiency, one option some couples consider is preimplantation genetic testing, often shortened to PGT.

PGT is used alongside IVF (in vitro fertilisation). Embryos are created in a laboratory, and a small number of cells from each embryo are tested for the specific gene change before an embryo is chosen and transferred into the womb. This allows some couples to reduce the chance of passing the condition on to their child.

PGT is not the right choice for everyone, and it is not needed to have a pregnancy. It is simply one option to be aware of. A genetics specialist can talk through whether it might suit your situation, and explain the process, costs, and success rates in more detail.

KEY WORDS EXPLAINED

Antithrombin:

a protein that helps stop blood clotting when it is not needed

Thrombophilia:

a tendency for blood to clot more easily than normal

LMWH (low-molecular-weight heparin): an injected blood thinner that is safe in pregnancy

Fetal growth restriction: when a baby grows more slowly than expected in the womb

Inherited:

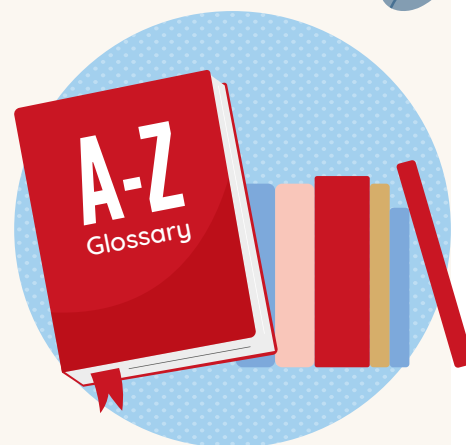
passed down from a parent through genes

IVF (in vitro fertilisation):

a fertility treatment where an egg and sperm are combined in a laboratory

PGT (preimplantation genetic testing):

testing embryos for a specific gene change before they are transferred during IVF



This guide is for general information only. Always speak to your own doctor or specialist about your personal care, treatment, and family planning options.

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