FIRST TRIMESTER · PATIENT INFORMATION

Low PAPP-A in Pregnancy: What Does It Mean?

What PAPP-A is, what a low result does and does not mean, and how your pregnancy can be looked after.

PAPP-A is a protein made by the placenta. It is measured in a blood test at 11 to 14 weeks as part of combined screening for Down's, Edwards' and Patau's syndromes.

Being told that your PAPP-A level is low can be worrying, particularly when the rest of your 12-week screening is reassuring.

Most women with a low PAPP-A result go on to have a healthy pregnancy and a healthy baby. This leaflet explains what the result means and how your care can be planned.



KEY POINTS

- PAPP-A is a protein made by the placenta and measured in your blood at 11 to 14 weeks.
- A result below about 0.4 MoM is usually described as low.
- Low PAPP-A is a risk marker, not a diagnosis: it is linked with a higher chance of a small baby or pre-eclampsia, but most pregnancies are unaffected.
- The result is best interpreted with your history, blood pressure, uterine artery Doppler and later growth scans.

What is PAPP-A?

PAPP-A (pregnancy-associated plasma protein-A) is a placental protein. It helps regulate the growth of the placenta and baby, and its level normally rises as pregnancy progresses. As well as being part of combined screening for Down's, Edwards' and Patau's syndromes, PAPP-A is a **biomarker of placental function**: it gives an early indication of how well the placenta is developing.

The lower the PAPP-A level, the stronger its association with pregnancy complications such as a small baby or pre-eclampsia. However, the majority of mothers with a low PAPP-A are completely normal and do not have any problems. A low result does not mean your placenta is abnormal or that your baby will have problems.

What counts as low?

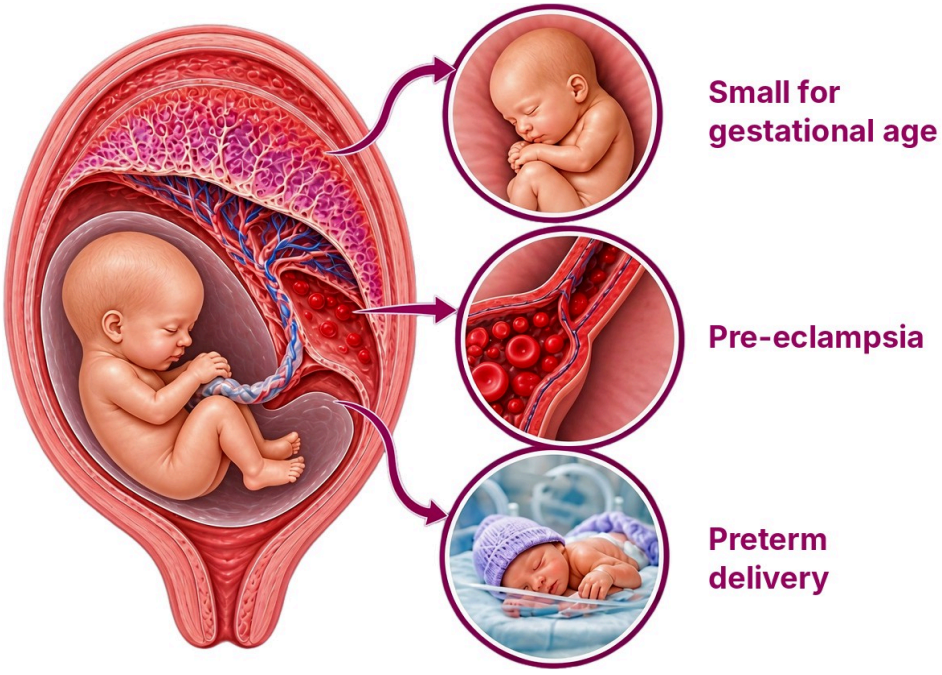
PAPP-A is reported as a multiple of the median (MoM), which compares your level with the average for women at the same stage of pregnancy. 1.0 MoM is exactly average and 0.5 MoM is half the average. In UK practice, a result below about 0.4 MoM is described as low, and below 0.2 MoM as very low.

Does it mean a chromosomal condition?

No. Low PAPP-A on its own does not mean your baby has a chromosomal condition; it is only one part of the screening calculation. If your combined screening or NIPT result is reassuring, a low PAPP-A does not in itself mean that further genetic testing is needed.

If you are concerned, please discuss your results with your local fetal medicine team, or you are welcome to come and discuss them with us at The Pregnancy Clinic. This is particularly helpful if your results suggest that your adjusted chance is higher than your background risk. We can explain what the results mean and discuss whether any further tests, such as NIPT, may be of additional value.

Which complications are linked with it?



Low PAPP-A is linked with a small baby, pre-eclampsia and preterm delivery

- **A small baby or fetal growth restriction:** low PAPP-A increases the chance, but most babies are not affected.
- **Pre-eclampsia:** the chance is higher, but on its own low PAPP-A is a poor predictor; combined pre-eclampsia screening is much more accurate.
- **Preterm birth and stillbirth:** there is a link, mainly where there are placental or growth problems, but the absolute risk remains low.

Outcome	PAPP-A 0.4 MoM or above	Below 0.4 MoM	Below 0.3 MoM
Birthweight below the 5th centile	4.7%	10.6%	13.3%
Pre-eclampsia	0.2%	2.3%	Not reported

In other words, about 89 in 100 women with low PAPP-A did not have a baby below the 5th centile, and about 98 in 100 did not develop pre-eclampsia. A small baby is also not necessarily growth restricted; some babies are simply small and healthy.

Should I take aspirin?

Isolated low PAPP-A is not one of the NICE risk factors for aspirin, although some NHS units recommend it locally. At The Pregnancy Clinic, we do not recommend aspirin purely because of an isolated low PAPP-A. Instead, we recommend combined pre-eclampsia screening, including your history, blood pressure and uterine artery Doppler. Where this shows an increased risk, we recommend aspirin 150 mg at night, ideally started at 12 to 13 weeks and before 16 weeks. Aspirin should only be taken on medical advice.

Will I need extra scans?

Additional growth scans are usually recommended. A typical plan is a detailed anatomy scan at 20 to 22 weeks, with uterine artery Doppler where appropriate, then growth, fluid and Doppler checks at 28 to 32 weeks and again at 32 to 36 weeks, depending on earlier findings. Normal growth on these scans is very reassuring, and low PAPP-A alone does not mean you need an induction or early delivery.

Can I do anything to improve it?

There is no treatment that reliably raises PAPP-A, and the aim of care is not to change the number but to identify and manage any associated risks. A low result is not caused by anything you have done.

Book an appointment

Our consultant-led assessment interprets your PAPP-A result in the context of your whole pregnancy, with pre-eclampsia screening, Doppler and growth scans, and a plan shared with your NHS team.

Call: 01732 647072

WhatsApp: 07572 929888

Email: appointments@thepregnancyclinic.com

Online: thepregnancyclinic.com

Our growth scans

Our website

Urgent concerns: we provide planned appointments only. If you have pain, bleeding or any other urgent concern, please contact your local NHS maternity unit, early pregnancy unit or NHS 111. Or call 999 in an emergency.

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This leaflet gives general information and does not replace individual medical advice. Please ask us if you would like it in another format.

References

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YOUR NOTES AND QUESTIONS