

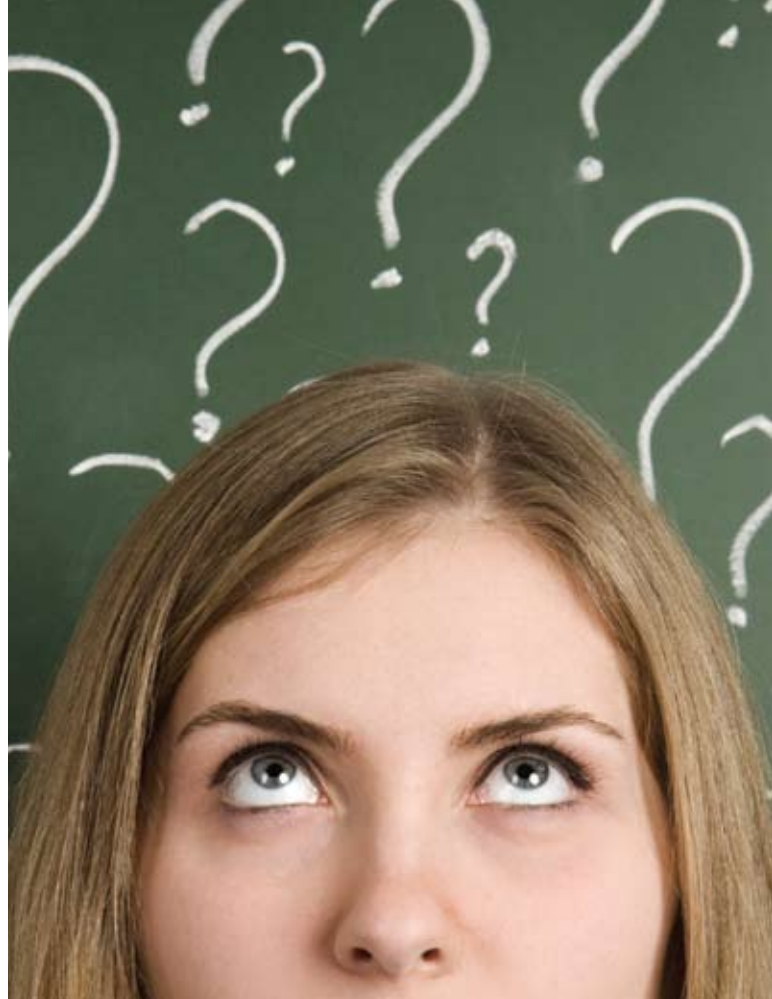
Ovarian reserve & AMH



Fertility Facts

The number of eggs a woman has in her ovaries falls with age – the measure of the number of eggs left is called ovarian reserve. Ovarian reserve can be used to predict who may undergo the menopause earlier than expected, the number of eggs you are likely to get in an IVF cycle and, to some extent, the chance of pregnancy from an IVF cycle.

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Number of eggs in the ovaries

The ovaries contain the greatest number of eggs before a girl is born, around two million. By the time she has reached puberty the average number has fallen to about 300,000, by the mid-30s it is 30,000, and at menopause the number has fallen to fewer than 1000. Most of these eggs degenerate and are absorbed well before they ever get to the stage of ovulation.

About 10% of women experience menopause five years earlier than average – around 45 years of age instead of 50 – and their fertility also declines five years earlier than average. For 1% of women their loss of fertility is even faster and they can enter menopause by the age of 40. Women who lose their fertility earlier have either fewer eggs to start with or lose their eggs faster than average as they age.

The number of eggs still left in the ovary is called 'ovarian reserve'. Estimating ovarian reserve can be useful to help:

- Identify women who should plan having a family sooner because they are likely to lose their fertility earlier than average
- Predict the number of eggs that will mature in response to IVF drugs
- Predict over-response to IVF drugs

Low ovarian reserve is associated with a relatively low pregnancy rate in IVF, partly because fewer eggs are obtained, and probably because the better quality eggs have already been lost.

Tests of ovarian reserve

The two best tests of ovarian reserve are Antral Follicle Count (AFC) and Anti-Mullerian Hormone (AMH). AFC uses ultrasound scanning to count the number of small ovarian follicles 4-6 mm in diameter on day 2-4 of the menstrual cycle. It is quite expensive because it requires a good ultrasound machine and a skilled operator, and it is hard to schedule unless you have very regular menstrual cycles.

AMH has turned out to be just as accurate as AFC but is a lot more convenient. It requires a single blood test which can be done at any time of the menstrual cycle. AMH is a hormone produced by the granulosa cells lining each ovarian follicle.

While AFC and AMH tests can help identify women who might lose their fertility more quickly, they cannot predict who is more fertile than average.

Contact us

www.fertilityassociates.co.nz | phone 0800 10 28 28



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TE RAUHANGA O TE WHARETANGATA

Ovarian reserve & AMH continued...

AMH test

Useful facts about the AMH test include:

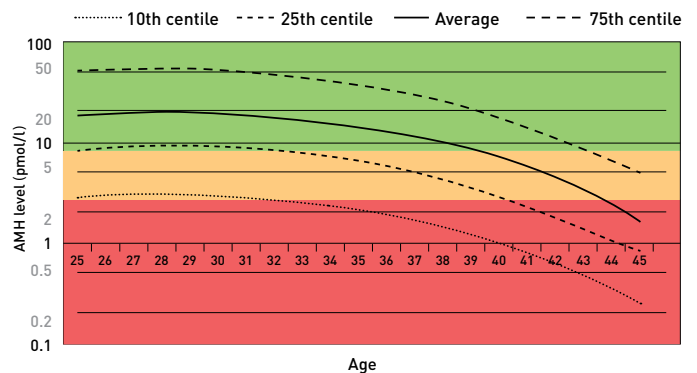
- It can be done any time in the menstrual cycle
- AMH levels do not seem to be affected by pregnancy
- Ovarian stimulation, such as with IVF drugs, increases AMH levels, so we advise you to wait at least a month after stopping these drugs
- AMH levels are higher in women with Polycystic Ovarian Syndrome (PCOS), so AMH does not predict ovarian reserve in women with PCOS
- The drug Metformin reduces AMH levels, so we advise you wait at least a month after stopping this drug
- Once you reach the late 30's, AMH is not so useful for predicting the likely age of menopause, but it may still be useful in predicting the response to IVF drugs.

Although AMH is one of the best tests available for fertility prognosis, a single blood test cannot tell the whole story. For this reason we offer the AMH test as part of a medical consultation with a fertility expert. Your own medical history, your family's fertility history, lifestyle and other investigations are all required to build a comprehensive picture of your fertility now and into the future.

The AMH test is not publicly funded in New Zealand so you will usually have to pay for it privately. If you are starting a publicly funded IVF cycle and have not already had an AMH test, Fertility Associates will pay for the test.

Interpreting an AMH result

Like most fertility tests, an AMH test does not give a black and white answer. We usually plot the AMH result on a graph that shows the 10th, 25th, 50th and 75th centiles for AMH for women attending a fertility clinic. This lets you compare your results with women of a similar age, and helps predict how your AMH level may change over the years. We have also shaded areas of the graph green, orange and red to represent the average impact of your AMH level.



Green Zone	Above the 25th centile for younger, fertile women.	Very likely normal ovarian reserve – age is the best predictor of your future fertility.	80% chance of 6 or more eggs in IVF.
Orange Zone	Between the 25th and 10th centiles for younger, fertile women.	Some women in this range will have reduced ovarian reserve.	50% chance of 6 or more eggs in IVF.
Red Zone	Below the 10th centiles for younger, fertile women.	Very likely reduced ovarian reserve.	20% chance of 6 or more eggs in IVF.

