



PATHOLOGY TESTS EXPLAINED

Information about pathology tests to help everyone take control of their health and make the right decisions about their care.

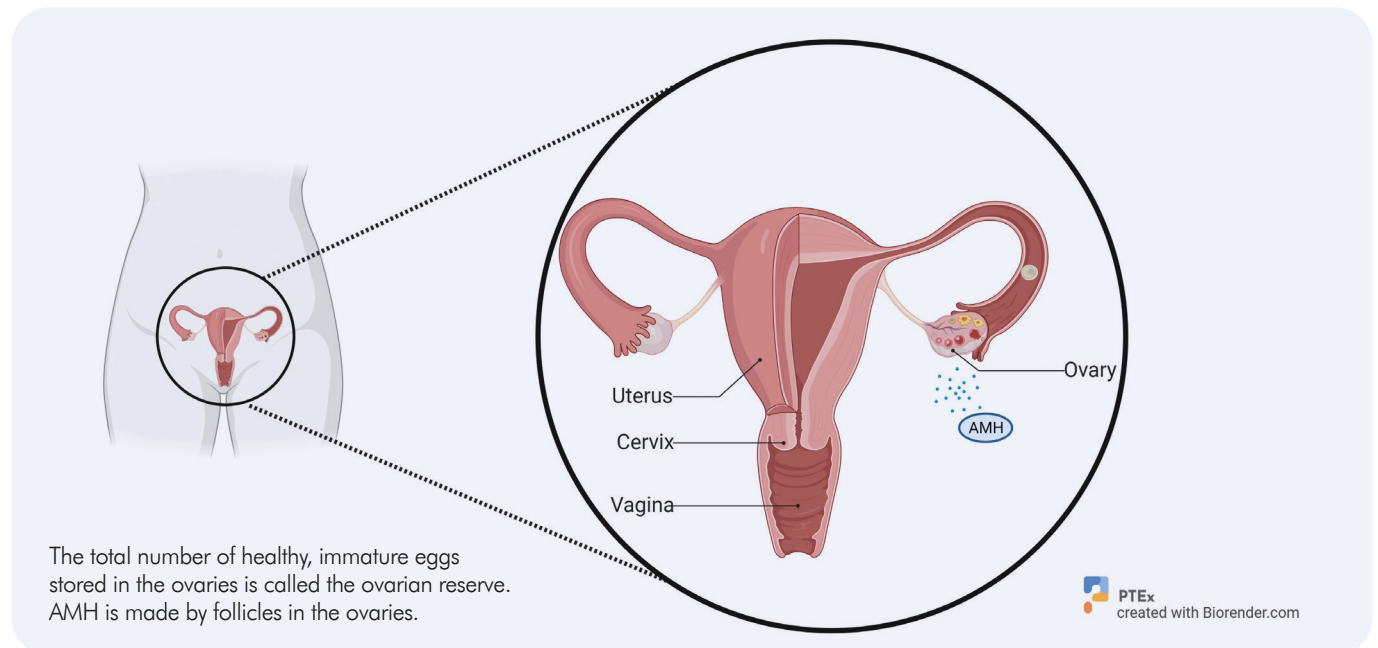
WHAT YOU SHOULD KNOW ABOUT AMH TESTING FOR ASSESSING FERTILITY

The anti-Mullerian hormone (AMH) test is most often used along with other hormone tests when IVF treatment is being considered. The level of AMH reflects the number of eggs that can be fertilised for pregnancy. A lower level of AMH suggests fewer eggs.

Although measuring AMH levels can be useful in assessing your egg reserve it cannot predict IVF success. It does not measure the quality of the eggs but only the number of eggs that someone of your age could expect to have.

You can still become pregnant with fewer eggs or have more eggs but not be able to become pregnant. Fertility declines with age, and it is not possible to predict the rate of decline for an individual.

Measuring AMH is most useful in predicting the number of eggs that will be available when your ovaries are stimulated with fertility drugs in IVF treatment.



The total number of healthy, immature eggs stored in the ovaries is called the ovarian reserve. AMH is made by follicles in the ovaries.

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AMH levels and fertility

A woman is born with a lifetime supply of eggs. At birth, she has about one million eggs which decreases naturally during childhood to about 500,000. Only a small number of the remaining eggs go on to mature – usually one at a time as part of the monthly menstrual cycle. AMH is made by follicles in the ovaries. These are little fluid-filled sacs that contain immature eggs and helps the eggs to grow during the menstrual cycle.

Levels of AMH in the blood correspond with the number of eggs. AMH levels gradually decline as a woman ages, and the number of eggs decreases. It drops markedly as menopause approaches, and typically becomes almost undetectable after menopause.

It is known that women with lower AMH levels produce lower numbers of eggs compared with women with higher AMH levels. This impacts on the likely responsiveness to IVF fertility treatment and the chances of becoming pregnant.



AMH levels and fertility

Menopause

Although it has been suggested in some studies that measuring AMH can help predict the onset of menopause, other studies have shown that AMH alone cannot be used to predict the age of menopause with any precision. AMH testing for this purpose is not recommended. There is no simple test to predict or confirm menopause or perimenopause.

PCOS

PCOS or polycystic ovary syndrome is a hormonal condition that can cause irregular menstrual cycles, facial and body hair growth, obesity and reduced fertility. Studies have shown that

women with PCOS may have an AMH level up to four times the normal level for their age. However, medical colleges and organisations in Australia and overseas do not recommend AMH testing for diagnosing PCOS and say more research is needed.

Cancer

Chemotherapy and radiation therapy for cancer can damage the ovarian reserves. Testing AMH levels before treatment can be useful in predicting the long-term loss of ovarian function during treatment. Levels may indicate that freezing eggs could be helpful in preserving fertility.



What your results can tell you

AMH can be measured on any day of the menstrual cycle and does not vary from one cycle to another cycle. This is one of the reasons why many infertility specialists use AMH to check ovarian reserve.

AMH is a specialist test requiring sophisticated instrumentation and must be performed in a pathology laboratory. Your blood sample may need to be sent to a reference laboratory. There is substantial AMH test result variations between pathology laboratories and doctors should be familiar with the test used and reference interval of their chosen laboratory. If you are tracking your levels, it is best to use the same laboratory to avoid fluctuations in the results.

Result	Interpretation
Low AMH levels	During your childbearing years, a lower level of AMH may indicate low ovarian reserve with decreasing fertility and minimal or lower responsiveness to IVF treatment. An undetectable AMH level may be associated with primary ovarian failure, but the AMH level alone cannot be used to diagnose premature ovarian failure. Undetectable-to-low levels of AMH are normal during infancy and after menopause.
High AMH levels	An increased level of AMH is often seen with PCOS but is not diagnostic of this condition. Increased AMH may also indicate an increased or even excessive responsiveness to IVF treatment and a need to tailor the procedure accordingly.

Questions to ask your doctor

- Why does this test need to be done?
- Do I need to prepare (such as fast or avoid medications) for the sample collection?
- Will an abnormal result mean I need further tests?
- How could it change the course of my care?
- What will happen next, after the test?

For more detailed information on these and many other tests go to pathologytestsexplained.org.au



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www.pathologytestsexplained.org.au

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Pathology Tests Explained is managed by a consortium of medical and scientific organisations representing pathology practice in Australia. More details at:

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