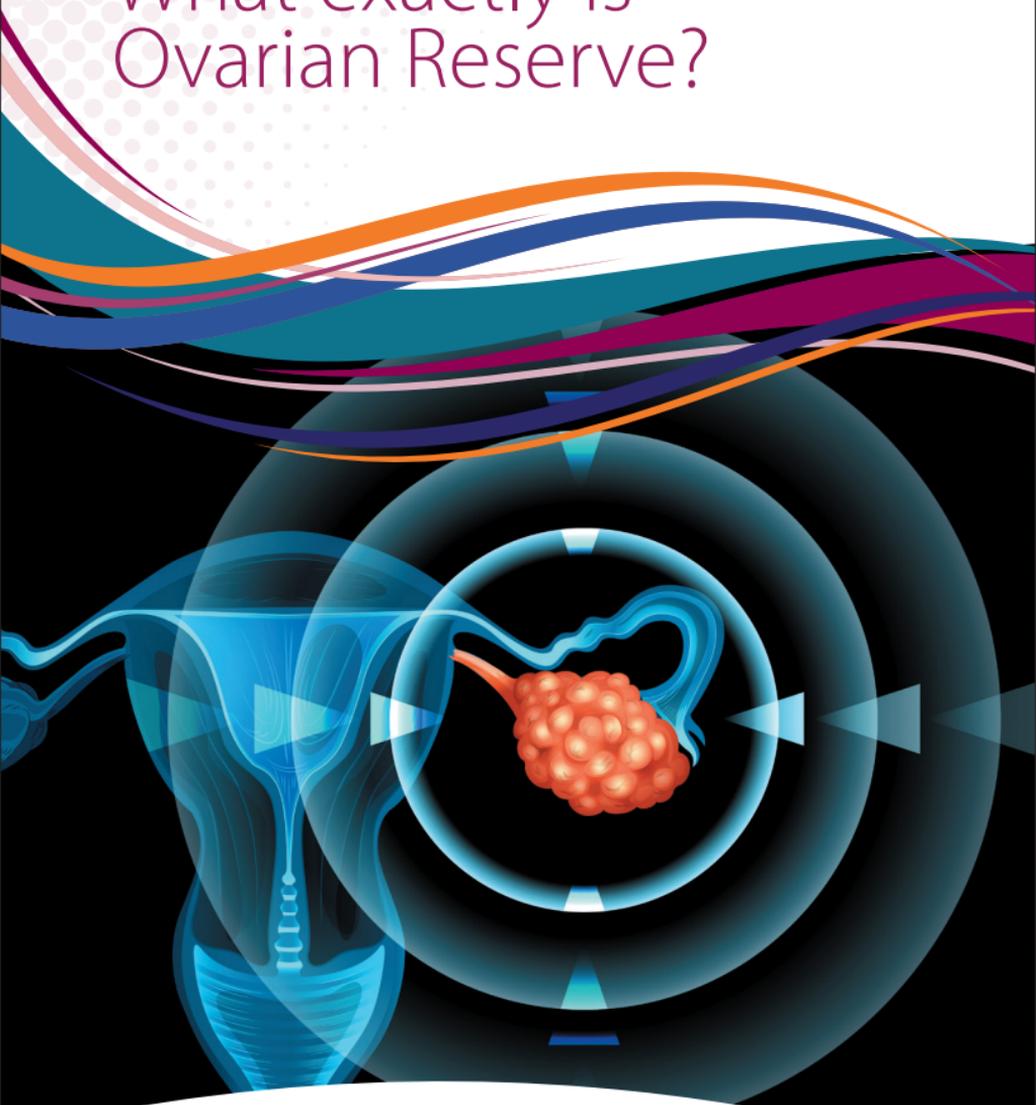


What exactly is Ovarian Reserve?



Ovarian reserve tests were developed by IVF clinics to predict how a woman having IVF treatment would respond to the drugs used to stimulate the ovaries and ultimately how many eggs she may produce. Ovarian reserve can be assessed through blood tests to measure two important hormones: follicle stimulating hormone (FSH) and anti-Müllerian hormone (AMH) or by an ultrasound scan that counts the growing follicles within each ovary.

FSH is produced by the brain and travels through the blood stream to the ovaries where it stimulates the growth of follicles. A normal FSH level is somewhere between 2-8.9: this is enough to support the growth of one follicle and is how nature normally limits us to singleton pregnancies. As FSH levels vary through the cycle it must be measured in the first few days of menstruation (day 2-5 of the cycle).

In contrast AMH is produced by the growing follicles and is a direct marker of the number of follicles. AMH varies with age but normal levels are somewhere between 3 and 35. Lower levels are indicative of poor reserve and higher levels associated with, but not diagnostic of, polycystic ovaries. AMH varies less through the cycle and so can be measured at any time.

The growing follicles can be seen on ultrasound. During the scan, which has to be an internal scan because the follicles are so small, the follicles are counted and you are given a total antral follicle count (AFC). The AFC and AMH are related therefore: some clinics measure one and not the other whilst some clinics measure both.

AMH and AFC, which may provide some information about egg quality as well as egg number, are better markers of ovarian reserve than FSH. However, a raised FSH level (≥ 9) is important as it does correlate with a poorer response to ovarian stimulation and is used by many CCGs to determine funding.

Age is, however, the ultimate marker of ovarian reserve. In general, older women with good reserve are likely to do less well in IVF than younger women with poor reserve. However, for women of the same age or women within specific age groups as used by the HFEA such as under 35, 35-37 and so on, ovarian reserve tests provide extra information and do differentiate how they will respond in IVF. Age is also used by CCGs to determine funding.

It is important to remember that these tests were developed to inform IVF treatment and not your natural fertility. Many women with low ovarian reserve will conceive without any problems whilst others with a good ovarian reserve may take time and need fertility treatment. Their increasing use as a 'fertility MOT' test to reassure women that their fertility is normal or that they should consider treatment sooner rather than later is open to interpretation. There is no doubt that tests showing a good ovarian reserve are reassuring but they by no means guarantee a baby and equally a poor or impaired ovarian reserve does not mean you will struggle and need fertility treatment.