

## Ovarian Reserve ... explained

All women are born with a certain number of eggs that are contained in egg sacs (follicles).....The number of eggs that remain is very dependent on the woman's age plus other factors.

On cycle day 2, 3 or 4 of a period, we can assess a woman's 'ovarian reserve' of eggs by measuring a blood test for Estrogen and FSH (Follicle Stimulating Hormone) plus an Ultrasound (US) of the ovaries. "Ovarian Reserve" is based on the fact that the Pituitary gland in the brain, by making FSH (Follicle Stimulating Hormone), controls the ovarian hormone production (Estrogen/Progesterone) and the development of the eggs including ovulation (release) by a mechanism of 'negative feedback'.

If the woman's Pituitary gland 'senses' on day 2,3 or 4 that there are not many egg sacs (follicles) present that month, it responds by over-producing higher levels of FSH hormone that month in order to stimulate the 'stubborn' ovaries to try to make eggs that month and produce Estrogen. High levels of FSH (over 15) are a bad sign indicating that she may have fewer eggs left and the quality may be less. The higher the FSH, the closer she is to Menopause and therefore has decreased chances for success with IVF or any treatment using her eggs. *Keep in mind, the FSH levels can change from month to month, but even 1 bad month is a 'red flag' indicating she may have decreased 'ovarian reserve' of eggs.* ( NB: For this assessment to be accurate, the Estrogen level that month needs to be below 70, since levels higher than that will artificially lower the FSH level and it can't be used as a measure of 'ovarian reserve').

Another method we use is an US to measure the number of follicles we count in each ovary on day 2,3 or 4. (Antral Follicle Count). Just like FSH levels, this follicle count varies with a woman's age. We always want to see at least 5 or more tiny follicles per ovary...the more the better.

The Clomid (Clomiphene) Challenge Test (CCCT) and laboratory measurements of anti Mullerian hormone and/or Inhibin are other measures of ovarian reserve.

Laurence A. Jacobs MD

[Laurence.Jacobs@integramed.com](mailto:Laurence.Jacobs@integramed.com)

[www.TheInfertilityDoctor.com](http://www.TheInfertilityDoctor.com)

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