

## Ovarian reserve testing with Ovarian Assessment Report

The Ovarian Assessment Report from ReproSource Fertility Diagnostics is used for ovarian reserve testing in patients. According to ReproSource, the Ovarian Assessment Report is the most advanced ovarian reserve testing system available using a single blood sample to assess ovarian egg supply in women considering egg retrieval.

Ovarian reserve is the capacity of the ovary to provide egg cells that are capable of fertilization resulting in a healthy and successful pregnancy. Diminished ovarian reserve is a common cause of infertility. Various processes are used for ovarian reserve testing. Blood tests that have been used include cycle day-3 follicle stimulating hormone (FSH) level, and antimullerian hormone (AMH) level. FSH levels predict egg "quality" and therefore pregnancy rates with in vitro fertilization (IVF). AMH levels predict egg "quantity" and therefore the number of eggs that will be retrieved during IVF.

FSH levels vary during the menstrual cycle and will also vary from cycle-to-cycle (intra- and inter-cycle variability). For ovarian reserve testing, FSH levels are measured on days 2, 3 or 4 of the cycle and are usually measured along with luteinizing hormone (LH) and estradiol (E2) levels. A concurrent vaginal ultrasound is also done to measure the antral follicle count and rule out presence of a cyst (that may release estradiol, which in turn will suppress the FSH level).

AMH and Inhibin-B are two hormones released by the granulosa cells, which surround each egg. These hormones are secreted into the blood and allow a more accurate assessment of egg supply than provided by FSH. The current commercially available assay, however, is showing wide variations in AMH levels limiting its clinical usefulness. There are wide variations in AMH levels (e.g. all the way from 0.5 to 3 ng/mL) in the same patient when test results are repeated.

The reason for this wide variation in levels is that the laboratories that <u>report AMH levels</u> currently do not have an "international reference preparation" to calibrate test results. ReproSource, on the other hand, uses a proprietary reference preparation and a standardized technique, which results in AMH reports that are both accurate and reproducible.

The Ovarian Assessment Report uses a combination of day 2, 3 or 4 FSH, AMH, age and other factors to calculate an **Egg Retrieval Score**. This score has been calibrated using data from hundreds of IVF cycles. The score allows patients and clinicians to better understand the chances of a successful egg retrieval, which most fertility experts define as yielding at least 5 eggs. It ranges from 1 to 20 with chances of good egg supply increasing with higher scores.

Egg Retrieval Score	Category
0 to 5	Reduced
6 to 10	Fair
11 to 15	Good
16 to 20	Excellent



## How will the Ovarian Assessment Report help my fertility specialist?

Because the Ovarian Assessment Report was developed using data from women undergoing fertility treatments, your fertility specialist is able to use your Ovarian Assessment Report test results in combination with other information to determine the most appropriate course of therapy for you and your partner.

## Will the Ovarian Assessment Report tell me if I will have a baby?

The results of the Ovarian Assessment Report alone cannot make that determination. Successful pregnancy and subsequent childbirth depend on multiple factors from both the female and her male partner. The assessment has been designed to evaluate one of the very critical female factor issues: your egg supply.

We use a variety of factors to assess ovarian reserve. These include an Ovarian Assessment Report test, antral follicle count using vaginal ultrasound, age, history of ovarian surgery, body mass index, smoking status, previous ovarian response to stimulation, etc.