Ontario Network of Experts in Fertility
life through knowledge
McMaster University Department of Obstetrics and Gynecology
3210 Harvester Road,
Burlington, Ontario, L7N 3T1
P 1.877.663.0223 F 905.639.3810
www.onefertility.com

Blood Tests - Explained

Outside Lab

Infectious Disease Screening (IDs) – this testing is required annually, while in treatment. It is important to know if a person is positive for any infectious diseases, as being positive can lead to various safety concerns and/or negative outcomes. We require that sexual partners of those in treatment also have up-to-date infectious disease results. Lastly, we must adhere to certain policies and regulations of Health Canada to be able to offer our services. We are unable to offer services to people who are positive for certain infectious diseases but can facilitate care at a centre that is equipped for this purpose.

TSH - Thyroid-stimulating hormone (TSH) is used to identify thyroid disorders, which may cause problems with fertility, loss of sex drive, menstrual irregularities, and miscarriages. The most common abnormal finding is hypothyroidism, which is usually caused by an autoimmune disorder called Hashimoto's thyroiditis. This test is done prior to pregnancy as well as in pregnancy. When treatment is required, the medication used to treat hypothyroidism is called Levothyroxine. Levothyroxine is a tablet that is usually taken once a day and is safe in pregnancy.

PROLACTIN – The main function of prolactin is milk production in the breasts, after giving birth. Small amounts of prolactin in the blood are normal. Hyperprolactinemia is a condition of too much prolactin in the blood and this can change or stop ovulation (the release of an egg from the ovary). It can also lead to irregular or missed periods. For sperm providers, high prolactin levels can cause nipple discharge, impotence (inability to have an erection during sex), reduced desire for sex, and low sperm count. Treatment varies based on the underlying cause.

Antimullerian hormone (AMH) – This is a hormone produced by cells from the small follicles (egg-containing cysts) in a woman's ovaries and is used as a marker of ovarian reserve. This gives us an idea of how many eggs still remain in the ovaries. Ovarian reserve declines with age and with some other factors. The rate of decline varies between people.

Follicle Stimulating Hormone (FSH) – This test is usually done at the beginning of the cycle, day 2,3 or 4 of the menstrual period. It can be done randomly for those who do not have regular periods. It can give us information about a person's ovarian reserve and how well ovaries are responding to the hormonal signals from her brain. When this level is high, this means that the ovaries are not responding properly, and the ovarian reserve is low.

Estradiol (E2) – This is a form of estrogen, a sex hormone that regulates many processes in the body. Estrogen is secreted by the growing follicle in the ovary and rises rapidly prior to ovulation. If ovulation is being induced with fertility drugs, estrogen level measurements help us determine the response to treatment.

3210 Harvester Road,
Burlington, Ontario, L7N 3T1
P 1.877.663.0223 F 905.639.3810
www.onefertility.com

Luteinizing Hormone (LH) – This hormone is used to detect ovulation. A rise in this hormone occurs one to two days before ovulation. Some people have a naturally high LH level, and this can make it tricky to detect ovulation for them.

Progesterone (P4) – This hormone is used to detect if a person has ovulated and helps prepare the endometrium (uterine lining) to receive an embryo (fertilized egg). The follicle that ovulates (releases an egg) forms a cyst called corpus luteum which produces progesterone. When the progesterone level is high, it means that a person has ovulated. Progesterone works on the uterine lining to make it favorable for an embryo to implant or attach to the uterus to establish a pregnancy. When a pregnancy does not occur, the corpus luteum shrinks and progesterone levels drops causing the uterine lining to shed and this is a person's period.

Human Chorionic Gonadotropin (HCG) – also know as bHCG or 'Beta' is a pregnancy hormone level. This test can tell us if a person is pregnant and how the pregnancy is progressing in the early stages. It also needs to be monitored when a person has a pregnancy loss as we need to make sure the pregnancy hormone level goes back to negative. This test should only be done when ordered by a doctor and should not be monitored for the duration of the pregnancy.