

## **When nature's not enough**

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Every woman is born with all of her eggs – typically between 200,000 and 500,000. Her ovaries are located on either side of her uterus, and each is the size of a walnut. About 15 to 20 eggs mature with each menstrual cycle.

For women with a normal 28-day monthly cycle, eggs begin to mature around day 5 in fluid-filled sacks called follicles. As the eggs grow, the follicles enlarge. Typically, one follicle will dominate and continue maturing until day 14, when ovulation happens and the follicle ruptures to release the egg (or possibly eggs) into the fallopian tube. If sexual intercourse has occurred recently, the sperm will be waiting in the fallopian tube to fertilize the egg. About three days later, the fertilized egg or embryo will travel down the fallopian tube into the uterus to implant into the endometrial lining.

This seemingly simple process requires all the right pieces with the right timing in order for conception to take place. Physical imbalances or conditions in both men and women can hinder or prevent that conception, leading to infertility.

For example, three hormones are necessary for ovulation to occur: estrogen, a follicle-stimulating hormone and a luteinizing hormone. If a woman is deficient in any one of these hormones or if they are secreted at the wrong time, eggs will not develop.

Other fertility road blocks can be structural abnormalities in the cervix or uterus. Fallopian tubes may be blocked or damaged due to scarring from pelvic inflammatory disease, surgery or sexually-transmitted diseases. Endometriosis may have caused scarring or adhesions in the pelvis that interfere with the normal anatomy and processes necessary to achieve a pregnancy. Polycystic ovary disease may prevent the ovaries from producing a dominant egg follicle that will mature to ovulation.

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Sperm play an equally important role in conception. If the percentage of sperm that are available, moving and shaped normally is low, fertilization may not take place. Sperm that lack the necessary receptors won't bind to an egg. Sperm without enough propulsion won't be able to swim up the fallopian tubes to fertilize the egg. Abnormal genetic material in sperm also may prevent fertilization.

In every 100 couples that are dealing with infertility, about 40 of the cases are linked to female-factor causes and another 40 involve male-factor issues. The remaining 20 are considered "unexplained" infertility but still may be treated with assisted reproduction techniques.

Unfortunately, the likelihood of pregnancy decreases as people get older. For women, rates of success drop after age 30; for men, after age 50. One out of every four women has trouble conceiving between the ages of 35-39.

If you are struggling to start a family or feeling the pressure of a ticking biological clock, don't sit back and wait. Call a reproductive specialist today who may be able to give nature a little "push" and begin to unravel the mysteries of infertility for you.

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