Reproductive Aging in Women

Your reproductive system ages faster than you may realize. Some women, after completing college, settling into a career, or waiting for the right partner, find that they have problems getting pregnant due to age-related infertility. Other women are surprised when they begin developing symptoms of menopause, such as hot flashes, while they still feel young and healthy. Understanding the stages your reproductive system goes through is important in understanding these changes in your body.

What are the stages of reproduction?

Reproductive Years
The first menstrual period occurs around age 12. Periods (cycles) may be irregular at first but should become regular over the next few years. Contraception is needed if a woman is sexually active and doesn’t want to become pregnant. Fertility peaks from the late teens through the late 20s and then begins to decline. By age 30, the chance of miscarriage begins to increase, and the chance of becoming pregnant starts to decrease.

Menopausal Transition
Usually in her 40s, a woman will begin the transition from reproductive years to menopause. The length of menstrual cycles will start to vary and she may begin to skip periods. She may experience hot flashes due to decreased estrogen production by the ovaries and may have difficulty sleeping. Pregnancy is rare but not impossible, so contraception is still needed to avoid pregnancy. The average age of the final menstrual period (menopause) is age 51.

Postmenopause
After menopause, pregnancy is no longer possible and contraception is no longer needed. Ovaries produce very little estrogen, which results in vaginal dryness and bone loss. Hot flashes intensify and then begin to subside. Hormone therapy or other treatments may be appropriate for short-term use. If vaginal bleeding is noted during this stage, a physician should be consulted.

How does reproductive aging affect fertility?
By age 40, many women will not be able to have a successful pregnancy. By age 45, very few women will be able to have a successful pregnancy. This happens because both the quality and quantity of eggs remaining in your ovaries gradually declines throughout your life, and this decline accelerates beginning around age 35. Age is the best indicator of egg quality. The decreasing quantity of eggs in the ovaries is called “loss of ovarian reserve.” Women begin to lose ovarian reserve before they become infertile and before they stop having regular periods. There are medical tests for ovarian reserve. These tests do not indicate whether pregnancy is possible, but can give information about whether age-related changes of the ovaries have begun. Women with poor ovarian reserve have a lower chance of becoming pregnant than women with normal ovarian reserve in their same age group.

What are my options?
Women who wish to delay childbearing until their late 30s or early 40s may consider methods of fertility preservation such as egg retrieval either followed by freezing of the eggs or in vitro fertilization (IVF) followed by freezing of the embryos. The success of embryo freezing is well established, but it requires that the woman have a male partner or use donor sperm. Egg freezing for preservation of fertility is still experimental, but shows promise for success in the future. The only option for women who are already infertile due to age is to use eggs or embryos donated by a younger woman. Using donated eggs or embryos, the chance of successful pregnancy is the same as that for the woman who donated the eggs.

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