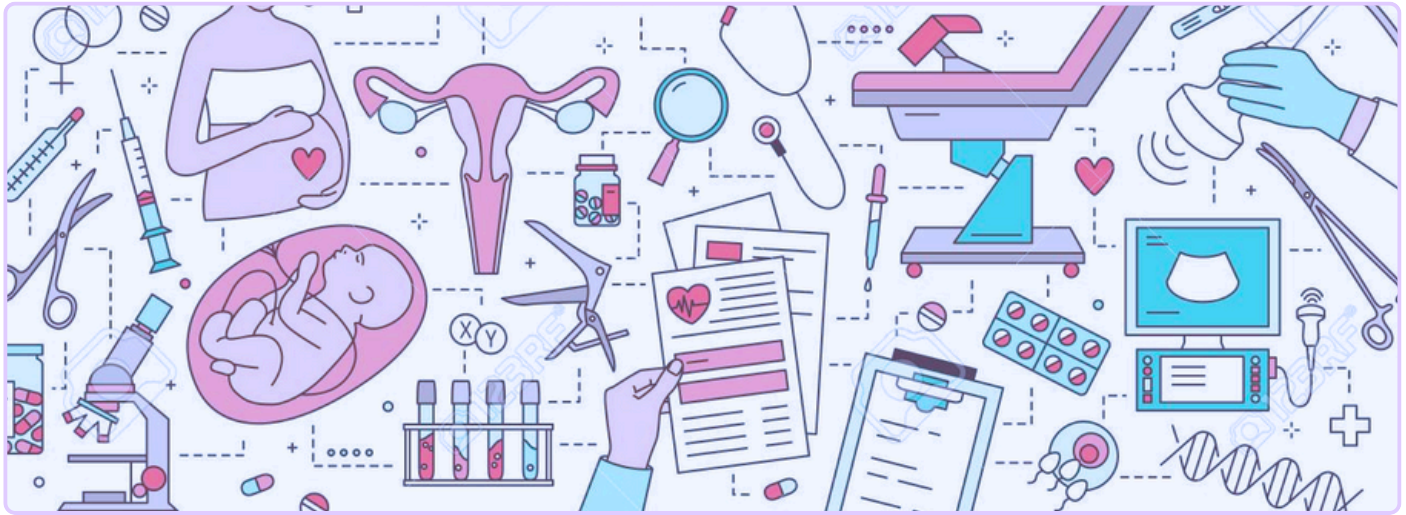


MONTHLY MEMO:

THE SCIENCE OF OVARIES: FUNCTION, DISORDERS, AND CARE



What are ovaries and their bodily function?

The ovaries are key organs in the female reproductive system, consisting of two oval-shaped masses attached to the uterus by ligaments. The ovaries serve two primary functions: producing eggs and releasing sex hormones. Females are born with millions of eggs in their ovaries—the highest number they will ever have. Over the course of a lifetime, only a few hundred of these eggs will be released. Each egg is surrounded by specialized epithelial cells, forming structures known as follicles. Ovulation, which occurs around the middle of the menstrual cycle, involves the release of an egg from one of the ovaries. The egg then enters the fallopian tube, where fertilization may take place.

What is menopause?

Menopause is a natural part of aging, not a disease. It marks the end of a female's reproductive years, usually between ages 45 and 55, and begins 12 months after the last period. During this transition, the ovaries stop releasing eggs, affecting fertility. Not all women experience symptoms, but some may have severe hot flashes, pain during sex, mood swings, and irritability. Hormonal changes can also impact cardiovascular health and bone density, increasing the risks of cardiovascular disease and osteoporosis.

Menopause has three stages: Pre-menopause (when irregular periods and early symptoms occur), menopause (when menstruation stops for a year), and post-menopause (when symptoms may lessen but health risks persist). Each woman's experience can vary.

What is polycystic ovarian syndrome?

Polycystic ovary syndrome is a hormonal disorder that affects women of reproductive age. Ovulation is prevented, causing the ovaries to develop many small fluid-filled sacs called cysts. These cysts make hormones called androgens. Androgens are abundant in men, but women normally have androgen in smaller amounts. Women with PCOS often have very high levels of androgens, which can cause issues with menstruation and PCOS symptoms (listed below). The cause of PCOS is speculated to be a combination of genetics and environmental factors. Common symptoms include:

- Irregular/absent menstruation
- Acne or oily skin
- Excessive hair growth
- Mood swings, depression, or anxiety
- Thinning hair or hair loss
- Darkening of the skin
- Difficulty getting pregnant

September: Ovarian Cancer Awareness Month

Ovarian cancer is characterized by abnormal cell growth in the ovaries, which can spread rapidly to other tissues. In its early stages, it may not present noticeable symptoms, making early diagnosis challenging. As it progresses, symptoms can include abdominal bloating, weight loss, pelvic discomfort, fatigue, changes in urination or bowel movements, and back pain, which can also resemble other conditions. To diagnose ovarian cancer, a pelvic exam is performed to check for abnormal growths or enlarged organs. Treatments vary based on the patient's situation and may include surgery to remove the ovary, chemotherapy, hormone therapy, or radiation. While ovarian cancer cannot be fully prevented, knowing your family history can help identify increased risk. For example, if you have a BRCA mutation, your healthcare provider might suggest preventive ovary removal to reduce cancer risk.



How Ovarian Cancer Affects the Body



What are the recommendations for maintaining ovarian health?

Dietary Changes

Whether dealing with PCOS, endometriosis, or aiming to improve your health, dietary choices play a significant role. For those with PCOS, avoiding inflammatory foods can help alleviate symptoms like cramping, bloating, and irregular periods. Foods to avoid include:

- red meats and fried foods
- saturated fats (such as butter or margarine)
- processed snacks
- sugary drinks
- alcohol
- white rice and refined flour.

Doctors recommend the Mediterranean diet for its benefits, focusing on whole, unprocessed foods rich in nutrients.

Key components include:

- Omega-3 rich fish like salmon
- olive oil instead of butter
- beans and legumes instead of red meat
- non-starchy vegetables
- whole grains and whole fruits.

Exercise

Exercise is also crucial, improving both physical and mental health through endorphin release. For those with PCOS, weight gain and depression are more common, making aerobic exercises like running, walking, swimming, or biking particularly beneficial. Both diet and exercise are essential for managing PCOS symptoms and maintaining a healthy menstrual cycle.

Healthcare

To protect ovarian health, women should prioritize regular gynecological exams, including pelvic exams, Pap smears, and ultrasounds when necessary. Discuss family history and risk factors like PCOS or ovarian cancer with your healthcare provider. Genetic testing for BRCA mutations may be recommended to assess cancer risk. Monitoring symptoms such as bloating, pelvic pain, or irregular periods is essential, as early detection of issues like ovarian cysts or cancer significantly improves outcomes.

Keep up with us!



Email us if you need us:
wrho.ou@gmail.com



Get access to more content on
our Instagram: @wrhoou



Lastly, don't miss out on our
TikTok & all of the back to school
content we have planned for
you: @ ou.wrho

SOURCES:

Cleveland Clinic. Ovarian cancer. <https://my.clevelandclinic.org/health/diseases/4447-ovarian-cancer>.

Cleveland Clinic. Polycystic ovary syndrome (PCOS). <https://my.clevelandclinic.org/health/diseases/8316-polycystic-ovary-syndrome-pcos>.

Fertility Institute of San Diego. Why is PCOS so hard to diagnose? <https://fertilityinstitutesandiego.com/why-is-pcos-so-hard-to-diagnose/>.

Johns Hopkins Medicine. PCOS diet. <https://www.hopkinsmedicine.org/health/wellness-and-prevention/pcos-diet>.

Johns Hopkins Medicine. Polycystic ovary syndrome (PCOS). <https://www.hopkinsmedicine.org/health/conditions-and-diseases/polycystic-ovary-syndrome-pcos>.

Mayo Clinic. Ovarian cancer: Symptoms and causes. <https://www.mayoclinic.org/diseases-conditions/ovarian-cancer/symptoms-causes/syc-20375941>.

Mayo Clinic. What is menopause? <https://www.nia.nih.gov/health/menopause/what-menopause>.

National Cancer Institute. Anatomy of the female reproductive system: Ovaries. <https://training.seer.cancer.gov/anatomy/reproductive/female/ovaries.html>.

National Institute on Aging. Hot flashes: What can I do? <https://www.nia.nih.gov/health/menopause/hot-flashes-what-can-i-do>.

North American Menopause Society. Five solutions for menopause symptoms. <https://www.menopause.org/for-women/menopauseflashes/menopause-symptoms-and-treatments/five-solutions-for-menopause-symptoms>.

Office on Women's Health. Menopause symptoms and relief. <https://www.womenshealth.gov/menopause/menopause-symptoms-and-relief>.

Office on Women's Health. Polycystic ovary syndrome (PCOS). <https://www.womenshealth.gov/a-z-topics/polycystic-ovary-syndrome>.

Society for Endocrinology. Ovaries. <https://www.yourhormones.info/glands/ovaries/>.

West Tennessee Healthcare. Exercise and PCOS: What women should know. <https://www.wth.org/blog/exercise-pcos-what-women-should-know/>.