About SWHR

The Society for Women’s Health Research (SWHR) is a national nonprofit and thought leader dedicated to promoting research on biological sex differences in disease and improving women’s health through science, policy, and education. Founded in 1990 by a group of physicians, medical researchers, and health advocates, SWHR is making women’s health mainstream by addressing unmet needs and research gaps in women’s health. Thanks to SWHR’s efforts, women are now routinely included in most major medical research studies and more scientists are considering sex as a biological variable in their research. Visit www.swhr.org for more information.

About SWHR’s Fertility Program

SWHR Science Programs identify research gaps and address unmet needs in diseases and conditions that exclusively affect women or that disproportionately or differently affect women. The Fertility Program was established in 2021 to address barriers to access and reduce health disparities related to treatments for infertility in women. The Program engages patients and patient advocates, clinicians and fertility specialists, researchers, and health care decision-makers around the burden of female infertility and promotes science-based health care policies and education to improve patient outcomes.

Acknowledgements

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Fertility is the ability to conceive and bear children. Women are born with about 1-2 million eggs, but release only 300 to 400 through ovulation during their lifetime. Each month, an egg is released from an ovary (ovulation) and travels through one of the fallopian tubes to the uterus. Sperm may meet with and fuse to the egg (fertilization) on its way to the uterus, even after living up to 3 or 5 days in the female reproductive tract. The body releases hormones that promote the movement and meeting of the egg and sperm and prepare the uterus to house a fertilized egg (implantation). If the egg is not fertilized, this preparatory process is transitioned to menstruation, allowing the body to reset for another cycle over the next 21-35 days.

**FAMILY PLANNING**

Crafting a Reproductive Life Plan encourages both women and men to set goals for having or not having children and to develop strategies for successful family planning. It takes into consideration your personal values, resources, and goals. Some sample questions to ask yourself include:

- Do I hope to have any (more) children?
- How long do I plan to wait until I become pregnant (again)?
- Have I looked at my family health history to see if I am at risk for a disease or condition that may impact fertility and/or pregnancy?

It is **UNTRUE** that birth control use (hormonal contraceptives, LARCs, etc.) causes infertility. While certain contraceptives might mask menstrual cycle irregularities that may contribute to future infertility, more than 83% of women become pregnant within 12 months after discontinuing contraception.

A woman’s fertility peaks in her 20s, and by age 35 begins to significantly decline, even in healthy women. Male fertility also decreases with age; however, age-related male infertility is often not a problem before age 60.
Common factors that can present challenges to fertility include:

- Age (>40 years old)
- Weight (obesity or underweight)
- Smoking, alcohol, and drug use
- Sexually transmitted infections
- Certain chronic health conditions (e.g., diabetes, thyroid disease, celiac disease, sickle cell anemia)

Ways to promote your personal and reproductive health:

- Track your menstrual cycle and ovulation
- Maintain your well woman exams with your health care provider
- Refrain from smoking, drug, and alcohol use
- Avoid toxic substances and environmental contaminants
- Reach and maintain a healthy weight
- Manage existing health issues (e.g., diabetes, anemia)
- Investigate relevant family medical history
- Explore health insurance considerations and coverage

**FERTILITY PRESERVATION**

Fertility preservation is a process that saves or protects eggs, sperm, or reproductive tissue, leaving the option open to have biological children in the future. While this method can be used to delay parenthood, individuals with certain health conditions or treatments that lead to diminished fertility can also benefit from fertility preservation. **It is important to understand that preserving reproductive cells does not guarantee future viability or a successful pregnancy.**

**ADDITIONAL RESOURCES**

- Flo Health App*
- Reproductive Life Plan Worksheet

*The Federal Trade Commission provides guidance to customers on how to select and use health apps while reducing privacy risks.

**References**


INFERTILITY

Infertility is characterized as the inability to become pregnant after 12 months of regular, unprotected sexual intercourse. Infertility can be caused by any number of issues due to both female and male-related factors.

1 in 11 women have trouble getting or sustaining pregnancy

1 in 9 men experience infertility

The most common cause (40%) of infertility in women is related to issues with ovulation.

Common Causes of Infertility:

**Female Factor Infertility**
- Ovulation disorders
- Abnormalities of the cervix or uterus
- Blockage or damage of the fallopian tubes

**Male Factor Infertility**
- Abnormal sperm production or function
- Problems with ejaculation
- Environmental factors

Certain cancer treatments can cause damage to reproductive organs resulting in infertility.

15-30% of infertile couples are diagnosed with unexplained infertility – when the causes cannot be determined.

Some women are at higher risk for infertility due to:
- Age (35 years or older)
- History of pelvic inflammatory disease or ectopic pregnancy
- Polycystic ovary syndrome (PCOS)
- Endometriosis
- Thyroid dysfunction

Male factor infertility can also occur in sexual partners due to past injury, trauma, or surgery to the scrotum and testes, or with men who experience challenges having erections or ejaculating.

Fertility conversations are often framed to apply to heterosexual couples. If you are single, LGBTQ+, or nonconforming, do not be afraid to discuss your fertility concerns or family planning goals with a health care provider that is open and responsive to your needs.

Regardless of your risk, consider talking to your health care provider even before you begin trying to conceive. Not only can they help you prepare for a healthy pregnancy, but they can also monitor your progress and diagnose potential infertility early on.

It is generally recommended to seek infertility treatment after 12 months of unprotected sex without conception. However, women who are 35 years or older should seek evaluation after 6 months of trying.
EVALUATING INFERTILITY

There are a number of causes for infertility in both men and women. Your health care provider should conduct an evaluation of you and your partner to assess what may be causing your difficulties to conceive. A fertility evaluation may involve a number of components and tests, such as:

- A complete medical history of both partners
- A pelvic exam
- Assessment of ovulation
- Tests for hormones associated with fertility and reproduction, such as estradiol, follicle-stimulating hormone, thyroid hormones, and anti-Müllerian hormone
- Evaluation of the uterus and fallopian tubes
  - **Hysterosalpingography (HSG)** uses a contrast dye and x-ray to visualize if the fallopian tubes are blocked.
  - **Diagnostic hysteroscopy** inserts a lighted telescope-like device into the uterus to view the uterine cavity.
  - **Transvaginal ultrasonography** and/or **sonohysterography** use ultrasound to view the inside of the uterus and fallopian tubes.
- Semen analysis to evaluate sperm health and function
- Additional preconception health testing to assess general health (e.g., blood count, infectious disease tests, immunizations)

The contrast dye used during the HSG diagnostic procedure can have a “tubal flushing” effect with indirect fertility benefits. Depending on the cause of infertility, some studies using an oil-based contrast dye have documented improved fertility within the first 6 months after undergoing the procedure.

**ADDITIONAL RESOURCES**

- Broken Brown Egg
- Fertility for Colored Girls
- Fertility Within Reach
- Jewish Fertility Foundation
- RESOLVE: The National Infertility Association

**References**


FERTILITY TREATMENT OPTIONS

Treatment options for infertility can include: medication, surgery, genetic testing, intrauterine insemination, and in vitro fertilization.

~12% of women ages 15-49 have received some type of infertility service

Fertility drugs for women alter hormone levels to help regulate or stimulate ovulation. This is the primary treatment method for women whose infertility is linked to an ovulation disorder. Commonly prescribed fertility drugs include:

- Clomiphene citrate
- Gonadotropins, including FSH and hCG
- Letrozole

Fertility drugs carry some risks, including pregnancy with multiples, ovarian hyperstimulation syndrome, and a slightly increased rate of ectopic pregnancy. Women have also reported unpredictable mood changes while taking fertility drugs.

25-35% of female infertility has been linked to fallopian tube blockage or damage

Surgical options are less common due to high success rates of other treatments. However, surgery can help correct problems with the uterine anatomy or fallopian tubes.

- Tubal surgeries address blocked fallopian tubes.
- Laparoscopic or hysteroscopic surgeries can help remove uterine fibroids, polyps, endometria lesions, or pelvic and uterine adhesions.

Intrauterine insemination (IUI) is a type of artificial insemination that uses a long, thin tube to place sperm directly into the uterus around the time of ovulation. The risks of IUI include pain, spotting, and rarely infection.
In vitro fertilization (IVF) is a type of assisted reproductive technology that involves removing eggs and sperm from two individuals and combining (fertilizing) them in the laboratory before transferring the embryo(s) into the uterus.

2% of babies born in the U.S. today are conceived using IVF

Donor eggs, sperm, or embryos can be harvested from one person(s) and then transferred to the intended parent for their own attempt at pregnancy, or transferred to a gestational carrier to carry the pregnancy.

FINANCING FERTILITY CARE
Always check your health insurance policy to understand coverage processes and costs. Additionally, many states have laws requiring employers to cover certain fertility treatments. The average out-of-pocket costs associated with diagnosing and treating infertility vary by procedure, clinic, and geographic location.

Do not be discouraged by costs. There are assistance programs and resources to support your investment in your reproductive life plan and family goals, such as the ones listed here. Also, ask your health care providers for additional resources they may know and recommend.

What to Expect
Keep in mind that, even with treatment, conceiving takes time. Some treatments may need multiple attempts before you can determine if it will be successful for you or not. Continue to talk to your health care providers about any questions or concerns throughout the process.

DECIDING ON A TREATMENT PLAN
Infertility treatment plans should be developed to meet your specific needs, values, and goals, including:
- Cause(s) and duration of your infertility
- Family planning goals (long and short-term)
- Age of you and your partner
- Risks and side effects
- Medical history
- Personal values and beliefs

ADDITIONAL RESOURCES
- CDC IVF Success Estimator
- Fertility Within Reach: Grant and Discount Programs
- RESOLVE: Insurance Coverage by State

References


Many women start their fertility journey with their current women’s health or primary care provider. While your primary provider is good place to begin, your fertility care may benefit from additional health care professionals with subspecialty expertise.

**Primary Care Providers:**
- **Family Physicians** can provide general women’s health care and help monitor family planning progress with their patients.
- **Obstetricians/Gynecologists (OB/GYN)** specialize in female reproductive health and provide women’s health care during pre-conception, pregnancy, childbirth, and immediately after delivery.
- **Nurse practitioners** can specialize in obstetrics and gynecology (OGNP) and provide women’s health services.
- **Midwives** are trained to help healthy women during labor and delivery, as well as prenatal and postpartum support.

**Specialized Fertility Care Providers:**
- **Reproductive endocrinologists** are OB/GYNs with fellowship training and board certification in reproductive endocrinology and infertility (REI). An REI has advanced knowledge to help diagnose, treat, and overcome infertility challenges in both men and women.
- **Reproductive urologists or andrologists** specialize in addressing fertility issues in men.

Other members of your multidisciplinary care team may include:
- **Complementary and alternative medicine (CAM) providers** for alternative therapies (e.g., acupuncture).
- **Interventional radiologist** for certain minimally invasive procedures (e.g., hysterosalpingography or “tubal flushing”) to diagnose and treat reproductive tract blockages that can impact fertility.
- **Mental health professional** for emotional health, sexual health, behavioral therapy, and coping skills.
- **Nutritionist or dietitian** for nutritional counseling and health.

**What is a fertility specialist?** Not all fertility specialists have the same education, training, and clinical practice expertise. It’s important to research your options and understand their experience and skills to ensure which fertility specialist would be a good fit for you and your care needs.

**FERTILITY CARE PROVIDERS**

**SHARED DECISION-MAKING**

Patient-centered health care often involves providers and patients working together to make decisions about tests and treatments throughout their health care journey. You should feel comfortable and empowered to ask as many questions as needed to be confident in your health care provider and fertility care plan. Talk to your provider early and often about any concerns you may have.
What does shared decision-making look like?

- Understanding the available treatment options and their risks and benefits
- Evaluating your options, based on your short and long-term goals and values
- Empowerment to communicate openly with your provider
- Feeling prepared to make informed decisions about your care, in collaboration with your provider
- Giving your informed consent before implementation of any procedure or treatment

SAMPLE QUESTIONS TO ASK YOUR FERTILITY CARE PROVIDER

- What process will you use to diagnose potential fertility issues in me or my partner?
- Do I have any health conditions that increase my risk of infertility?
- What is your experience with treating infertility?
- Is there a particular health care provider or fertility specialist that I should add to my care team?
- What are my treatment options? What are the risks, benefits, and success rates of each?
- How long should I wait to expect results? How often should I schedule follow-up visits?
- If you recommend performing a surgical procedure, how many have you performed in the past?
- If I do get pregnant, what happens next?
- What resources or programs can you recommend to help finance my care?
- Can you share some resources to learn more about planning a family and infertility?

ADDITIONAL RESOURCES

- American Society for Reproductive Medicine: Find A Health Professional
- Johns Hopkins University: Fertility Clinic Finder
- Society for Assisted Reproductive Technology: Find an IVF Clinic

Informed consent is a process of communication and education to get patient permission for care, treatment, or services. Consent is typically given by signing forms that explain key medical and legal implications of the care services to be rendered.

When meeting a new provider, share your goals for treatment and history of prior care early on. Do not be afraid to advocate for yourself and any concerns related to your age, faith, culture, sexual orientation, or other personal preferences. If you want another perspective on your diagnosis and/or treatment options, consider seeking a second opinion.

References
