

Disclosures

Relevant Disclosures:

The Menopause Society Board of Directors

Consultant: Astellas

No conflicts of interest

References:

I will discuss clinical studies of off label use of pharmaceuticals for vasomotor symptoms.

This presentation references people born with ovaries. I may use the terms women, she, and her. These terms may not capture the diversity of all those experiencing menopause. We need more research to explore how diverse people experience menopause.

A woman with voluminous, dark curly hair is shown in a thoughtful pose, resting her chin on her hand. She is looking off to the side with a contemplative expression. The background is a softly blurred indoor setting with a white shelf holding decorative items like a blue and yellow sphere and a book. The overall lighting is soft and natural.

—I wasn't expecting you
so soon.

Premature Menopause

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Learning Objectives

01

Describe the physiology and pathophysiology of premature menopause or premature ovarian insufficiency

02

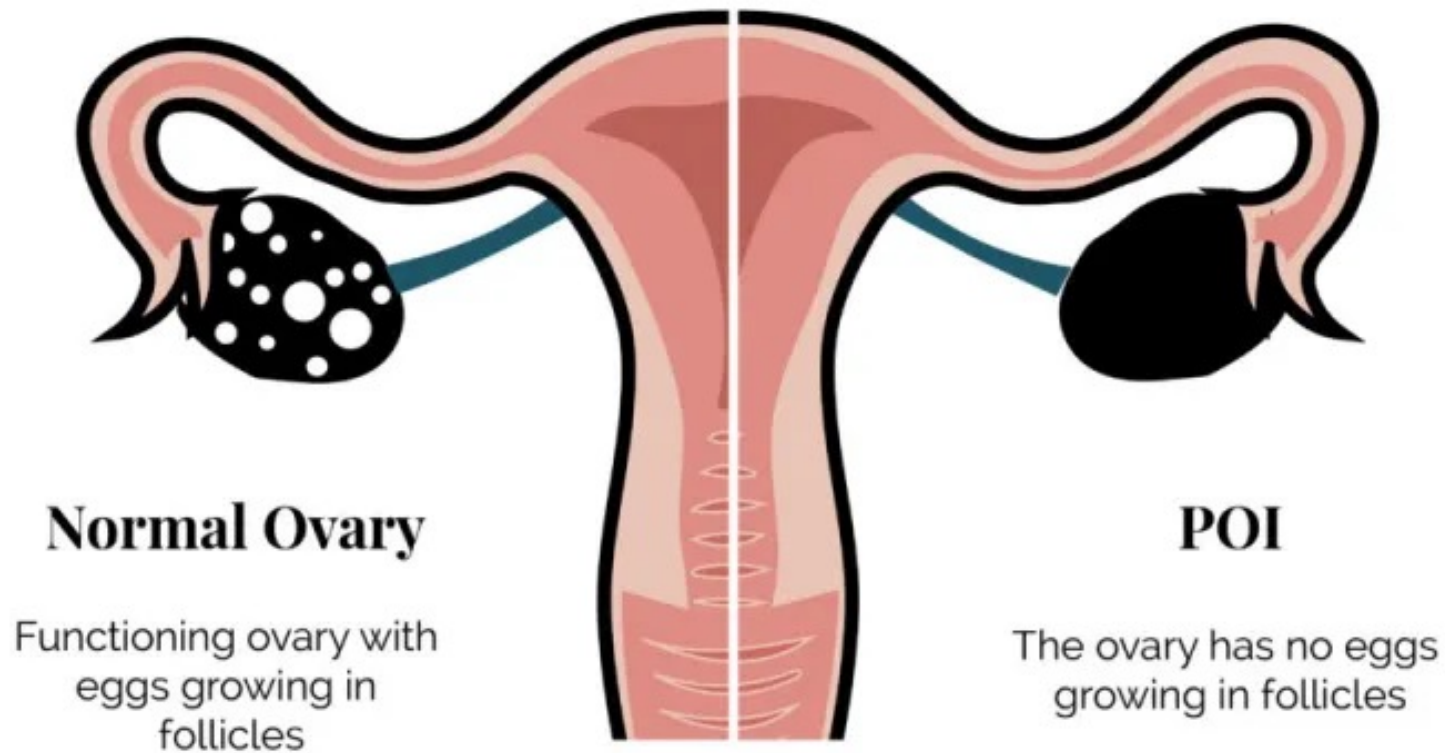
Review diagnostic considerations and management of women with premature menopause secondary to ovarian insufficiency and oophorectomy.

03

Discuss the use of hormones in women with complex medical conditions who are diagnosed with premature menopause

PREMATURE OVARIAN INSUFFICIENCY

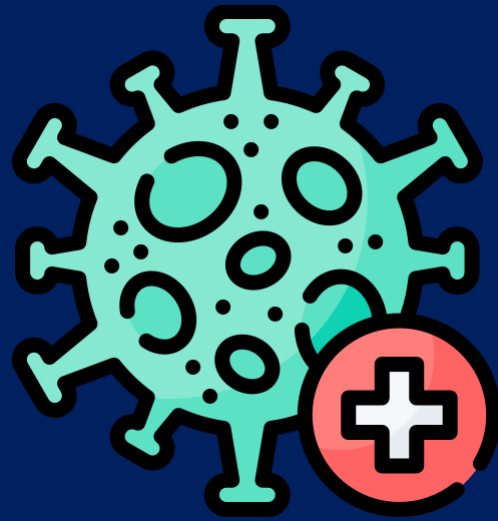
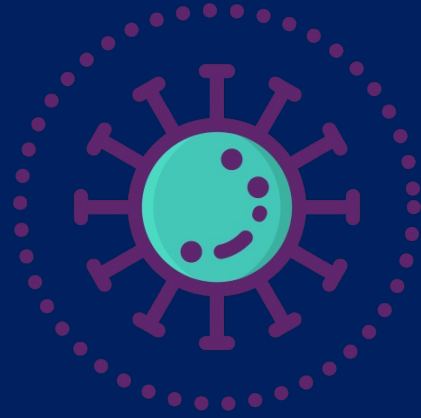
WHAT IS POI?

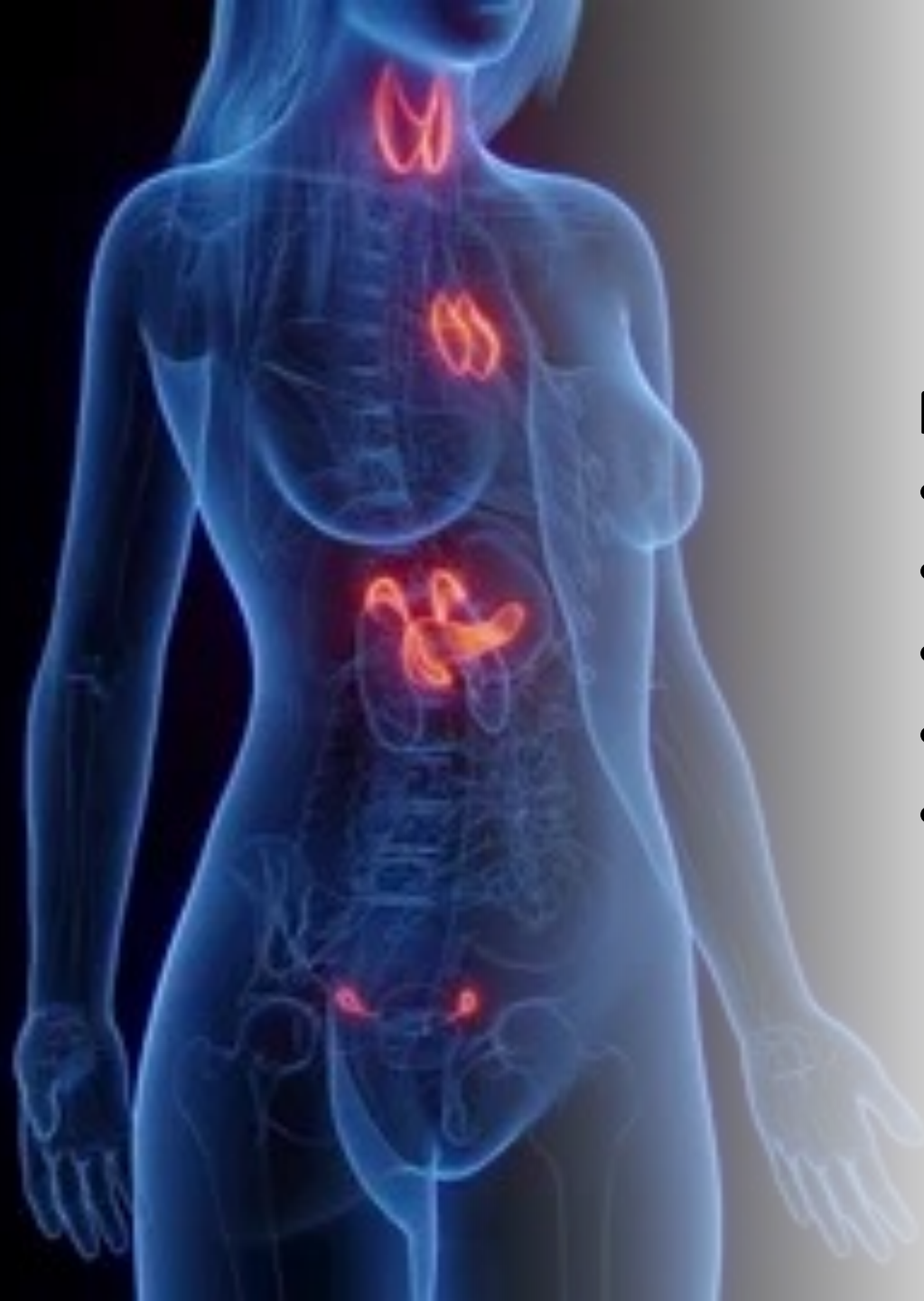


1% US population

- 1% White
- 1.4% Black
- 1.4% Hispanic
- 0.5% Chinese
- 0.1% Japanese

3.7% worldwide





Multi-organ System Impact

- CHD
- Neurocognitive
- Osteoporosis
- Sexual function
- Mortality & Morbidity

33% visit 3 physicians before diagnosis is made



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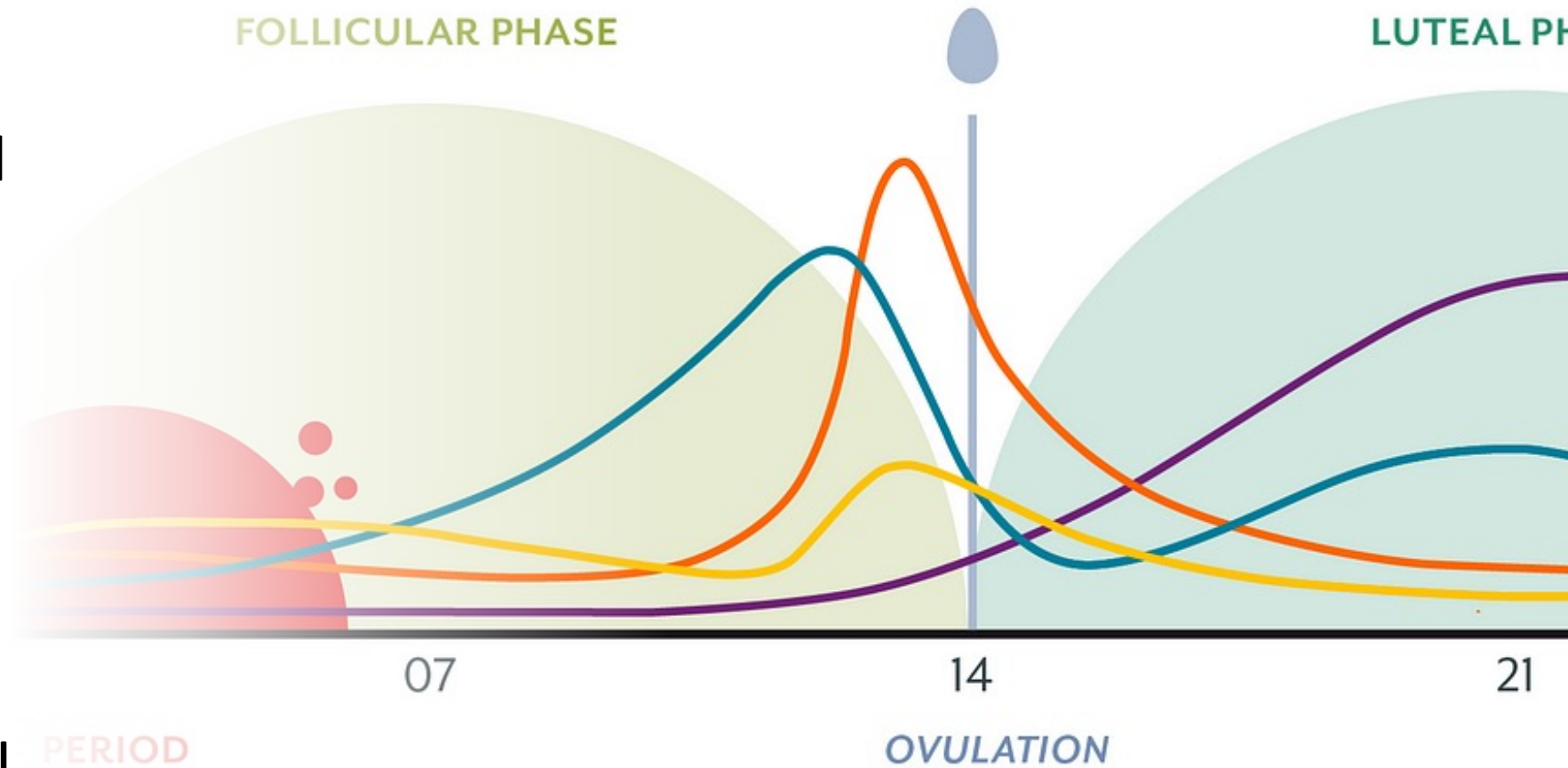
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Suspicious Signs of POI

- Amenorrhea x3 months with hx of regular cycles
- Amenorrhea >6 months with hx of irregular cycles
- New onset menstrual changes, decreased ovarian reserve



Ovarian Cycle

Menopause Symptoms:

- Hot flashes/night sweats
- Sleep disruption
- Vaginal dryness

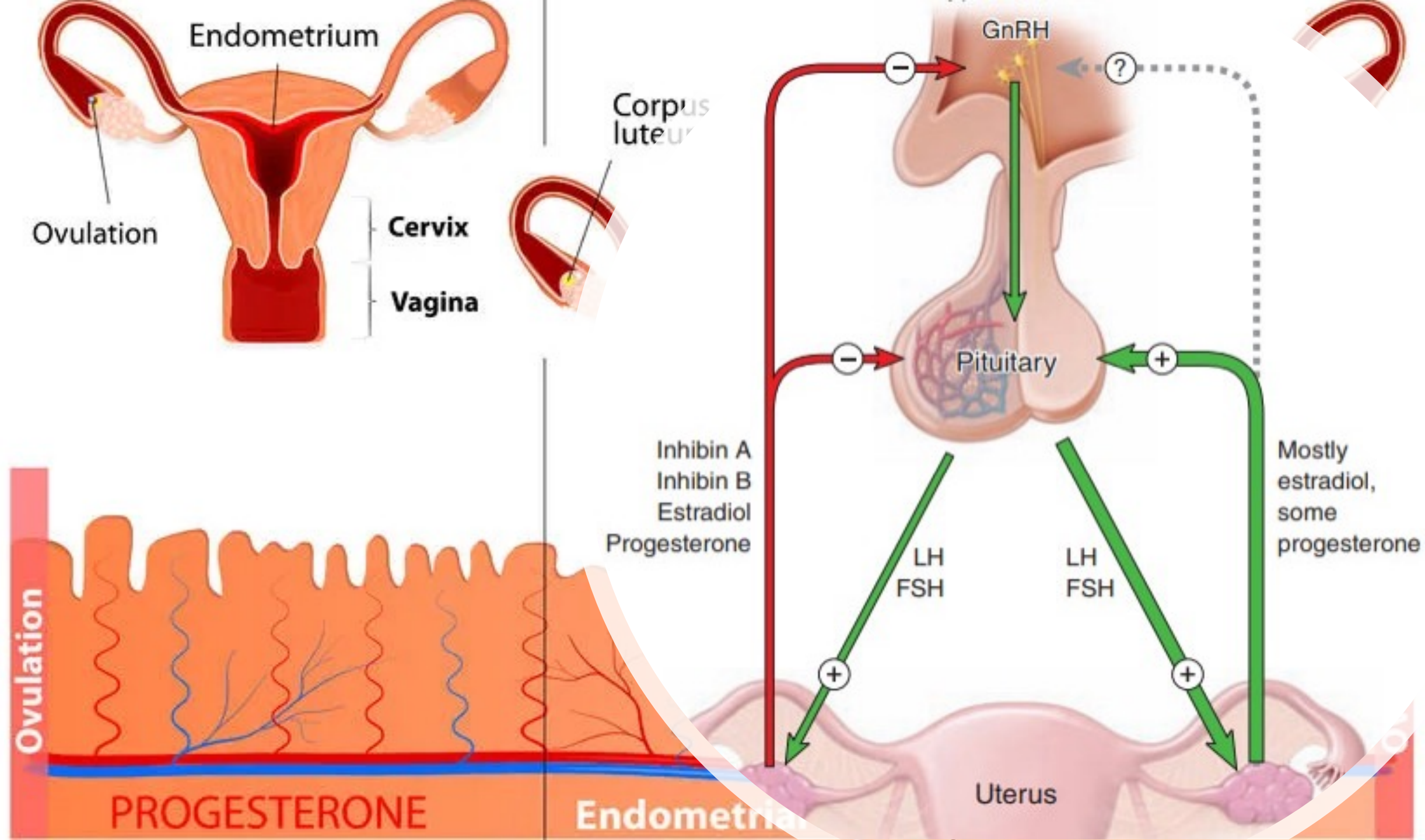
Sexual dysfunction

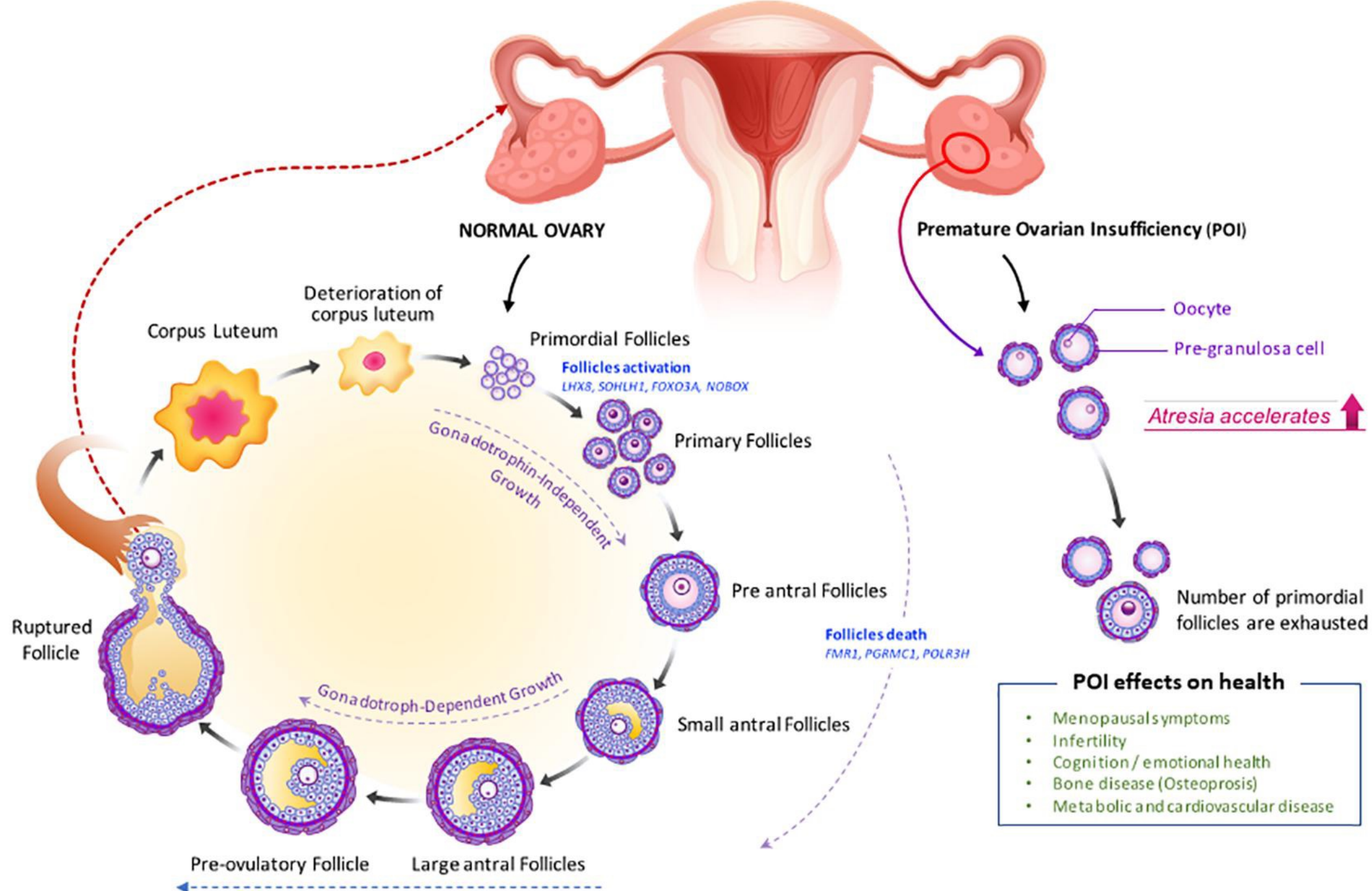
Depression/Anxiety

Cognitive decline

Dry eye syndrome









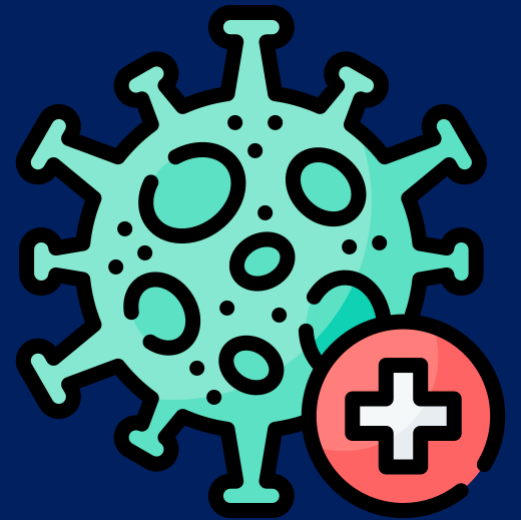
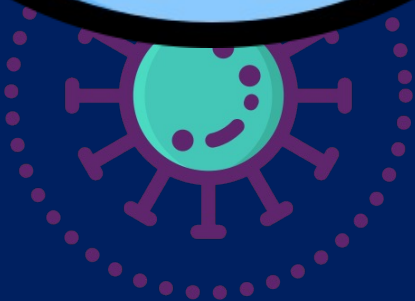
History

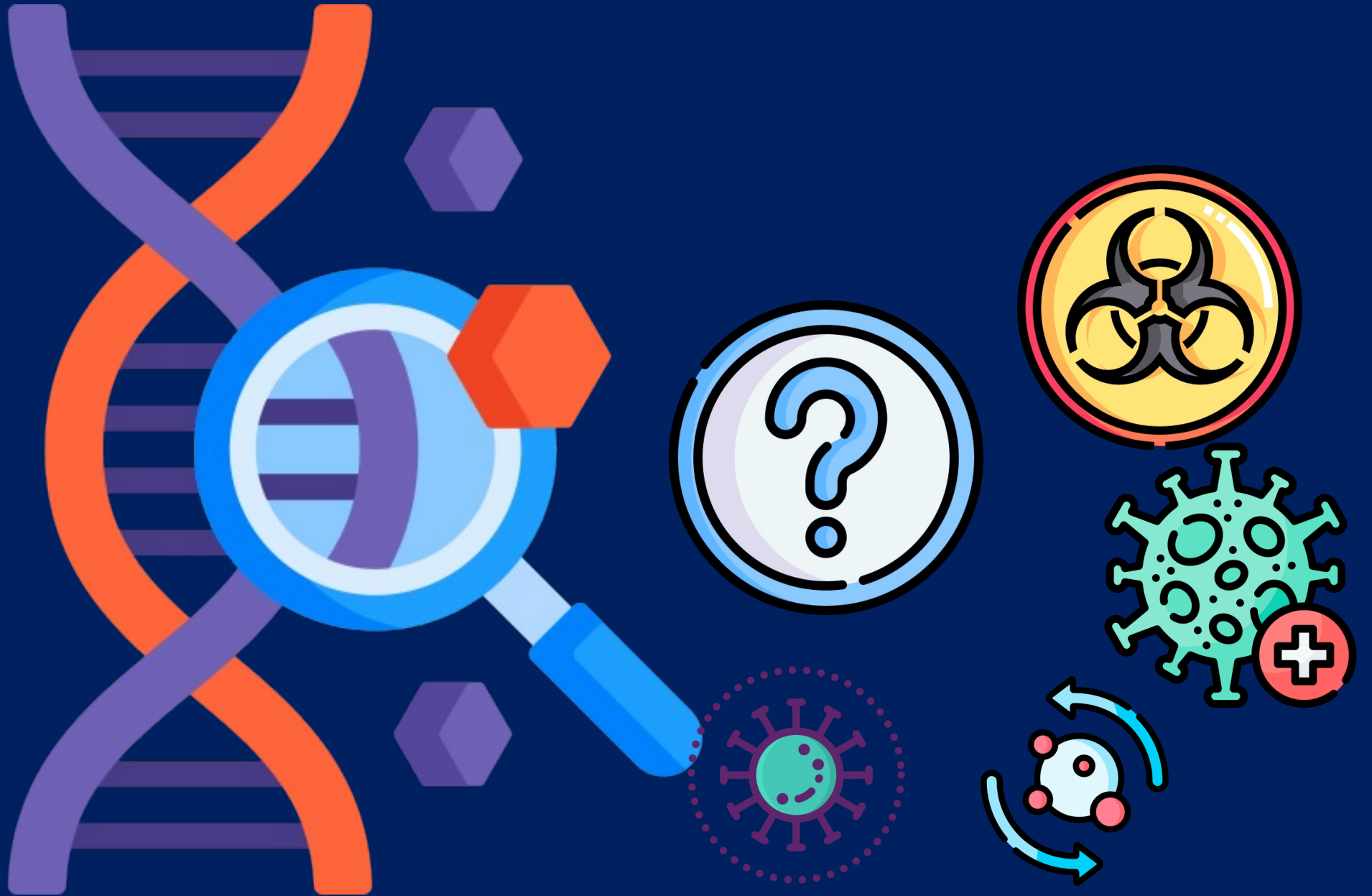
- Menstrual
- Family
 - Menstrual irregularities/Early menopause
 - Genetic disorders
 - Neurocognitive disorders

Laboratory Evaluation

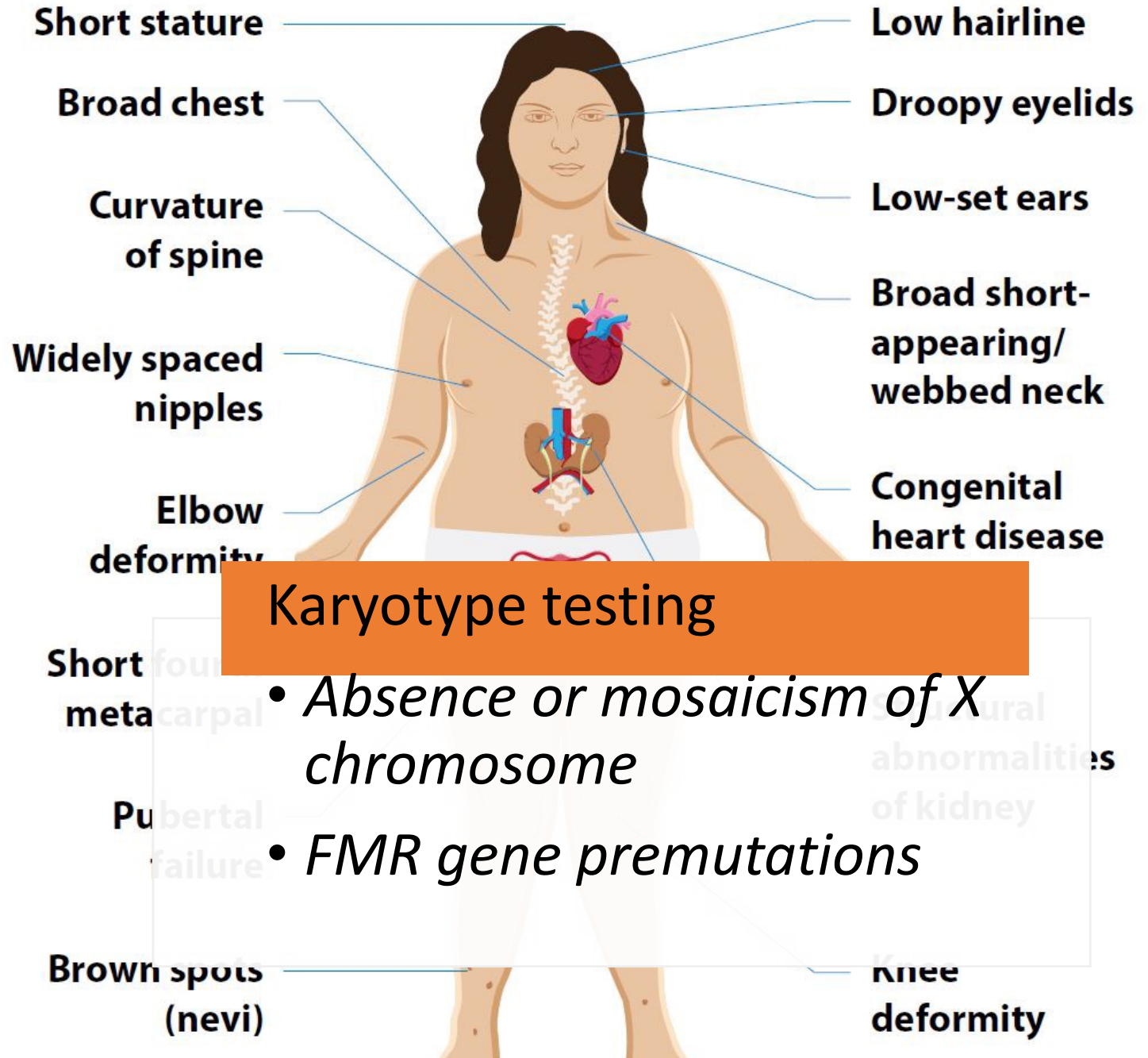
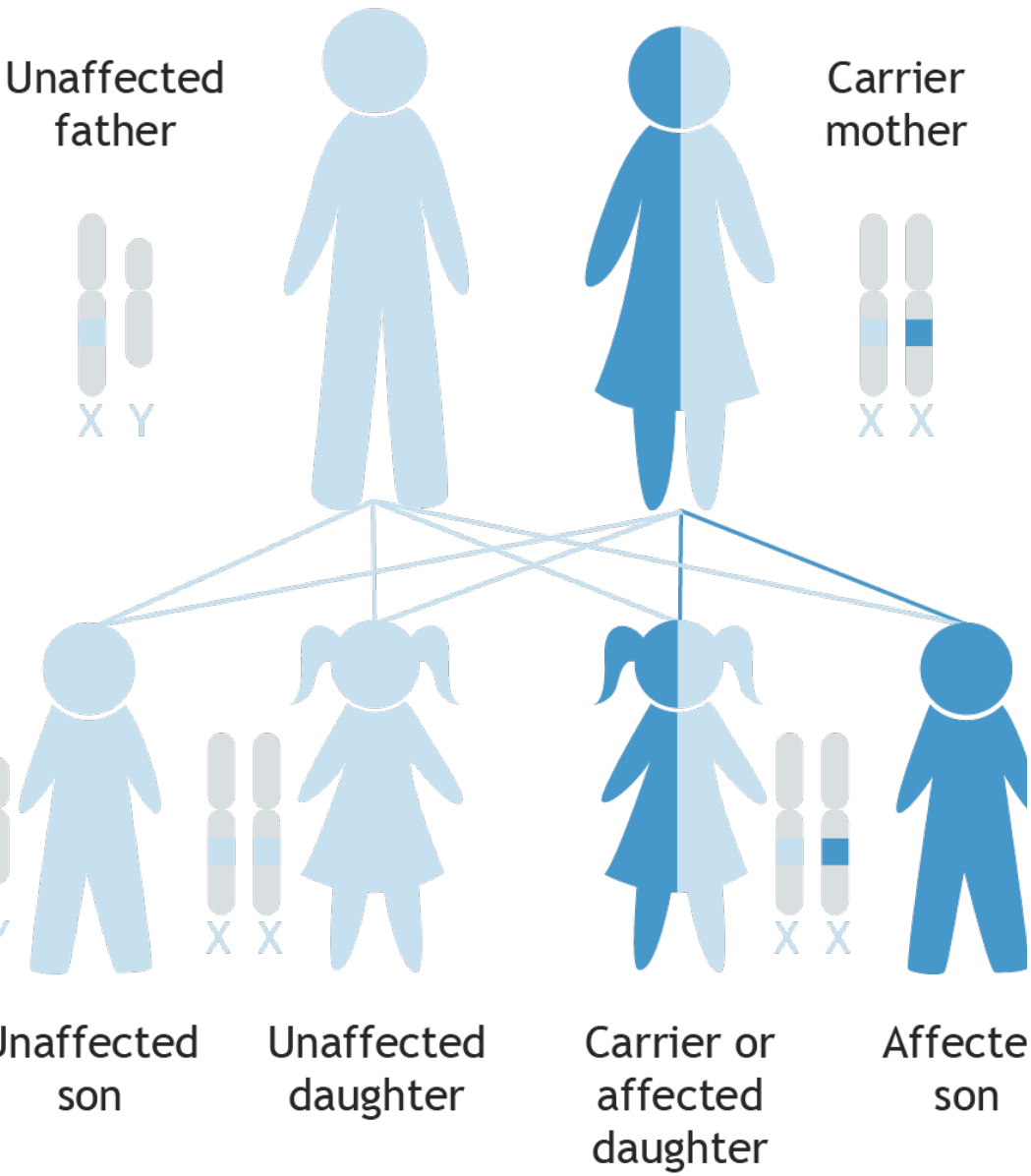
- HCG level: rule out PREGNANCY
- Thyroid function
- Prolactin levels
- Gonadotrophic function
 - FSH
 - *If elevated, repeat in 1 month with Estradiol*







X-Linked Inheritance in Fragile X Syndrome

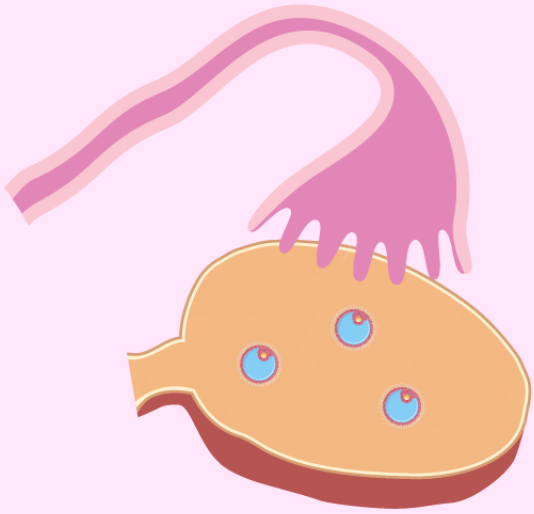


Karyotype testing

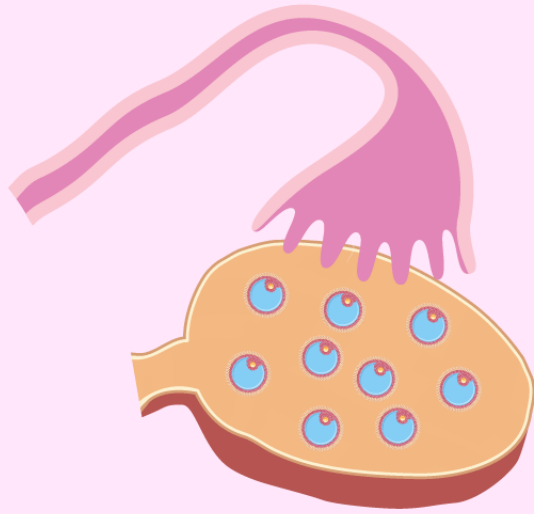
- *Absence or mosaicism of X chromosome*
- *FMR gene premutations*



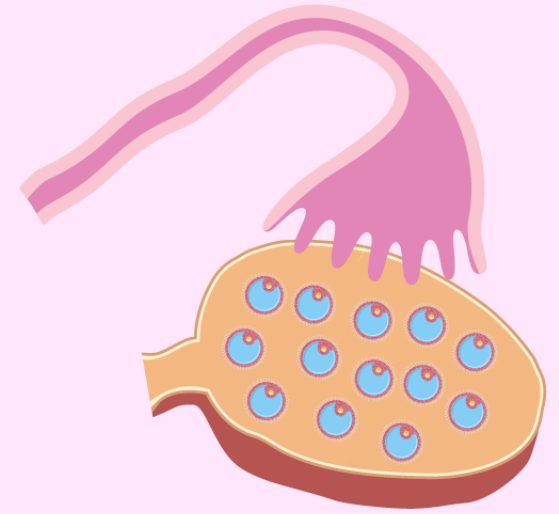
Autoimmune thyroid disease, Addison's disease, Type I Diabetes



Low ovarian
reserve



Normal ovarian
reserve



High ovarian
reserve

- Gonadotoxic therapies: cyclophosphamide therapy, radiation, chemotherapy, pelvic surgery
- Environmental toxins: chemicals (phthalates, bisphenols, dioxins)
- Galactosemia
- Infections: Mumps, HIV



Surgical Menopause

- Vasomotor symptoms
- Genitourinary symptoms
- Sexual dysfunction
- Cognitive impairment
- Bone loss
- Cardiovascular disease
- All cause mortality
- Cancer death



Treatment

A grayscale photograph of a woman with her eyes closed, hugging a large, dark-colored teddy bear. She is sitting on a patterned rug. The image is overlaid with a semi-transparent dark gray filter. The text 'Psychological Support' is centered in white. There are decorative dotted lines: a horizontal line of four dots in the top right corner, a vertical line of four dots in the bottom left corner, and two faint dotted circles on the right side of the image.

Psychological Support



R



Hormone therapy

Diagnostic accuracy and diversity of modern treatment options have led to a more effective set of treatment for patients with breast cancer. This treatment is not toxic, has no contraindications, and the drug was high compared to other treatments.

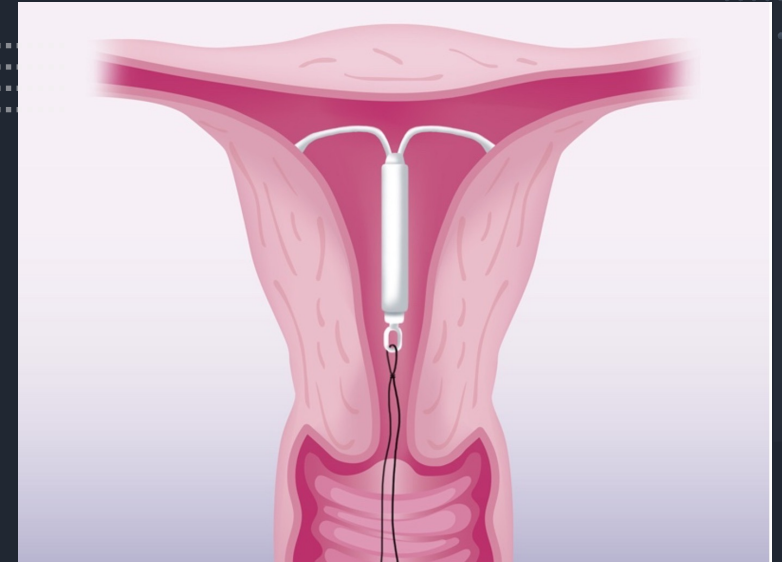
Estrogen Replacement Therapy

- Transdermal patch or Vaginal Ring 0.100 mg/day E_2 transdermal patch or 0.100 mg/day E_2 ring
- Full-dose physiologic replacement for young women
- Serum E_2 level of 100 pg/mL
 - Near normal mean E_2 level for normally cycling women of 104 pg/mL
- Avoids 1st pass liver metabolism
- Allows continuous dosing
- CVD/ thrombotic risk markers not adversely effected



Endometrial Protection

- Medroxyprogesterone Acetate (MPA) 10 mg/d x 12 days per month
- ? Micronized progesterone
 - Not well studied for use with full Estrogen replacement doses
- Off label: Levonorgestrel IUDs
- Precautions for abnormal or breakthrough bleeding
 - Evaluate breakthrough bleeding: pregnancy test, pathology

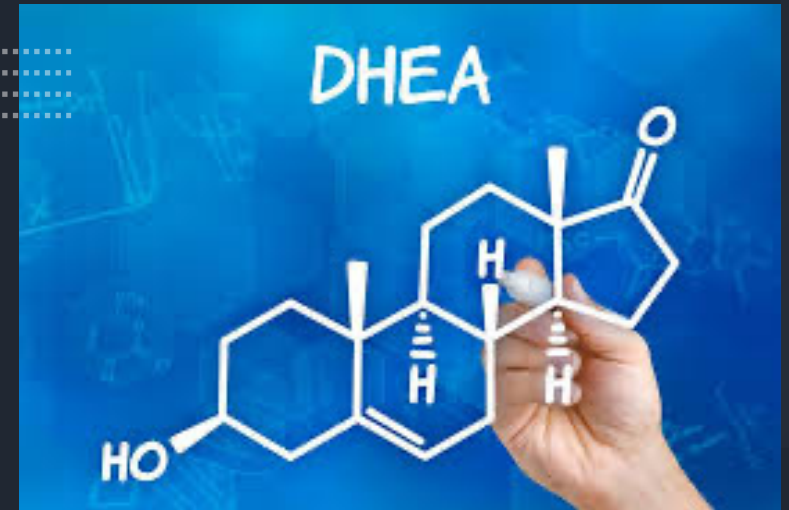


Combined Hormonal Contraception

- Use with caution
- Supraphysiologic levels of synthetic estrogen and progestin
- Increased risk of VTE, ATE, HTN, worsening lipid profiles
- Menopause symptoms with cyclical use



More Research Needed



Bone Health

- Baseline BMD with DEXA recommended
- Calcium 1200 mg daily
 - Dietary source is preferred
 - Supplement if necessary
- Vitamin D 1000-2000 IU daily
 - maintain in normal range >30 ng/mL
- Weight bearing exercise



- Reduced Endothelial function
 - Improved with 6 months of HRT
- 50% greater risk of CVD events in women with premature menopause
 - Risk decreases with initiation of HRT within 1 year of menopause and maintained for 10 years
- Regular CVD risk assessments and risk reduction measures
- Lipid management
- BP management
- Early initiation of HRT at physiologic levels



Menopause and Heart Health

Heart disease risk rises for everyone as they age, but for women, the years leading up to and after menopause are a critical time to care for their health.

Menopause is a natural phase of life for most women in their 40s or 50s. It's often just called menopause, but **menopause actually has three stages:**

- 1 PERIMENOPAUSE**
 - Includes the most symptomatic years
 - **Key time for a woman to reduce CVD risk factors and care for her heart health**
- 2 MENOPAUSE**
 - When a woman's period stops permanently
 - 12 months in a row without menstruation
- 3 POSTMENOPAUSE**
 - Many women will spend up to 40% of their lives postmenopausal or "after menopause"



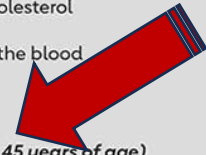
Cardiovascular Risk Factors

Menopause does not cause cardiovascular disease; however, during the menopausal transition, women experience many changes in their bodies, including some that can impact their cardiovascular health:



- Decline in estrogen levels
- Hot flashes and night sweats
- Depression
- Sleep problems
- Increased body fat around the organs
- Increased cholesterol levels
- Stiffening or weakening of the blood vessels
- Increased risk of metabolic syndrome – 3 or more of:
 - High blood glucose (sugar)
 - Low levels of HDL ("good") cholesterol in the blood
 - High levels of triglycerides in the blood
 - Large waist circumference
 - High blood pressure

The early natural menopause (prior to 45 years of age) and the surgical removal of the ovaries can also increase a woman's risk for cardiovascular disease.



Take Menopause to Heart

Women are at a greater risk for heart disease and stroke after menopause, making it even more important to focus on your health before menopause, and throughout the menopausal transition.



Get plenty of exercise/physical activity



Quit smoking



Know your numbers

- Blood pressure
- Body Mass Index (BMI)
- Cholesterol
- Blood glucose (blood sugar)



Eat healthy

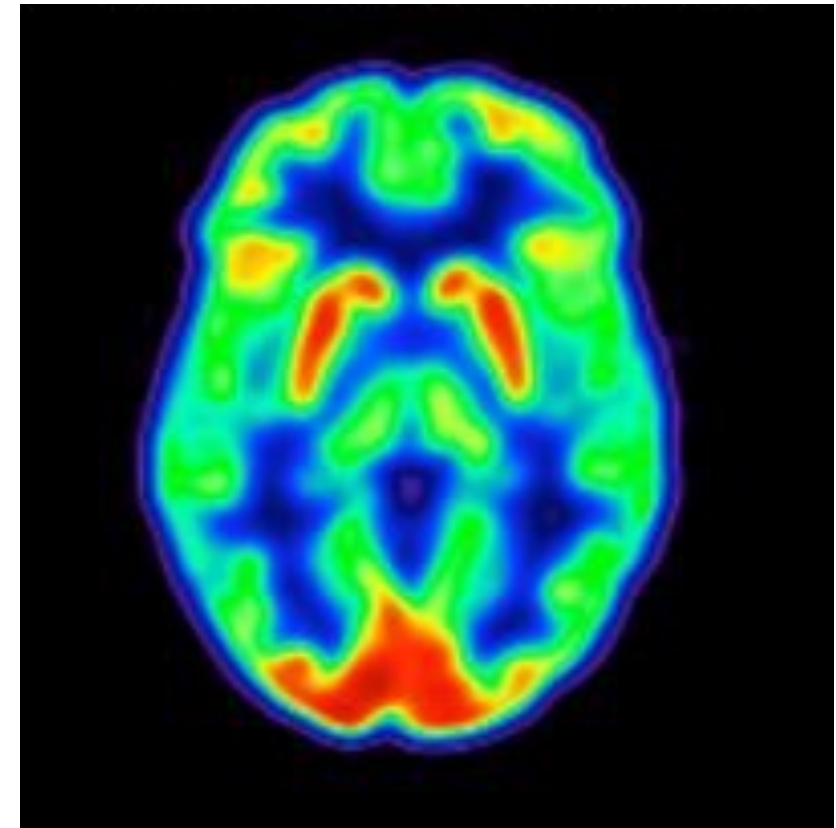
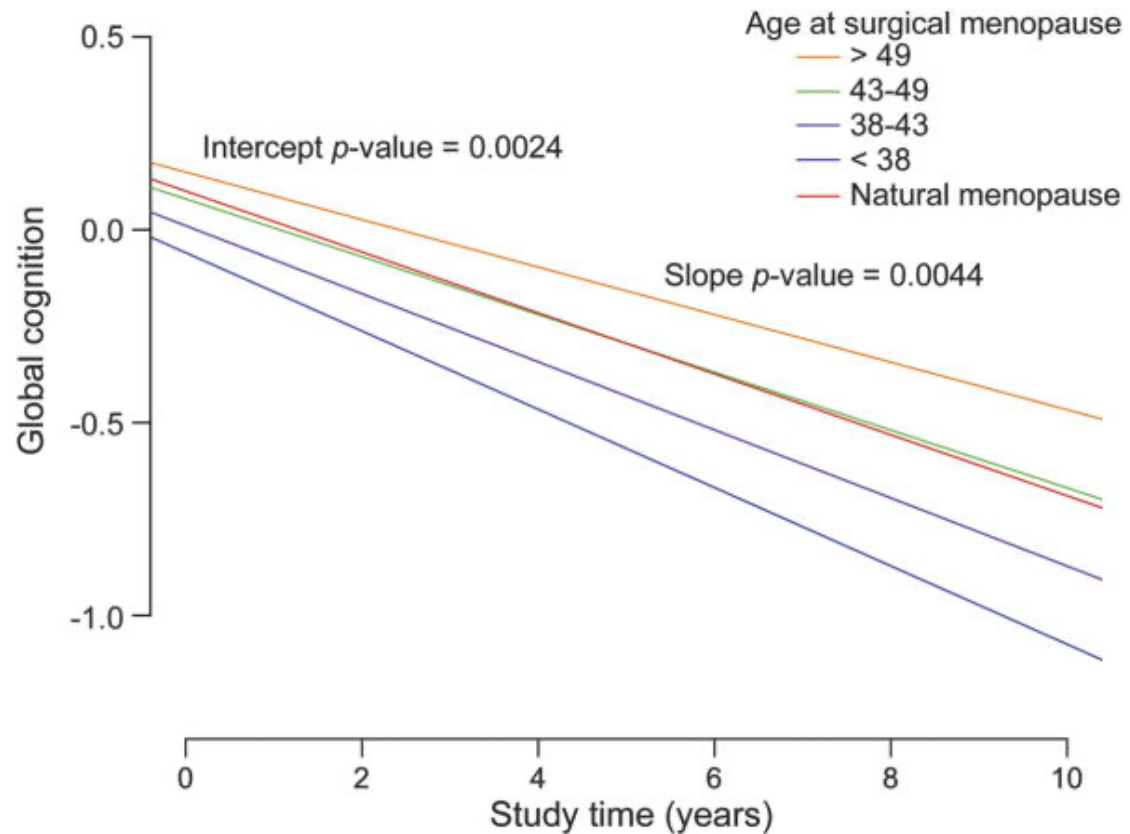


Manage your stress

Talk to your health care team about your risk factors and how to prevent cardiovascular disease during middle age.

To learn more, visit goredforwomen.org/menopause

Neurocognitive Health



Age at surgical menopause influences cognitive decline and Alzheimer pathology in older women.
Bove, Riley; Secor, Elizabeth; Chibnik, Lori; Barnes, Lisa; Schneider, Julie; MD, MS; Bennett, David; De Jager, Philip; MD, PhD
Neurology. 82(3):222-229, January 21, 2014.

Fertility Loss

- AMH
- Partner with REI
- Psychological support



A woman with long brown hair is sitting on a bed in a bedroom, covering her face with both hands. She is wearing a white t-shirt. The room has a blue wall and a wooden shelf with various items. The text "Emotional Health" is overlaid in white on the image.

Emotional Health



*Prevention, Nutrition,
Sleep hygiene, Weight management*

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Turner Syndrome



Photo courtesy of





Risk Factors

- Growing up in a dioxin superfund neighborhood
- Gonadotoxic chemotherapy
- Radiation therapy
- Ovarian suppression with leuprolide

Treatment considerations

- HRT
- Bones
- Psychology
- Fertility
- Sexual function
- Mood

