An –Najah National University
Faculty of Medicine and Health Science,
Nursing and Midwifery Department

Common Reproductive Concerns

1. **Menstrual Disorders**
2. **Infections**

Shurouq Qadous ***RN, MSN, PhD Candidate***

Menstrual Disorders

Problems may occur at any point in the menstrual cycle. Many factors, including anatomic abnormalities, physiologic imbalances and lifestyle can affect the menstrual cycle.

Menstrual Disorder Vocabulary

- Meno = menstrual-related
- Metro = time
- Oligo = few
- A = without, none or lack of
- Rhagia = excess or abnormal
- Dys = pain, difficult, abnormal
- Rhea = flow

Amenorrhea

Amenorrhea, *the absence of menstrual flow,* is a clinical sign of a variety of disorders.

Generally, the following circumstances should be evaluated: (1) the absence of both menarche and secondary sexual characteristics by 13 years of age ; (2) the absence of menses by 15 years of age, regardless of normal growth and development (**Primary amenorrhea)**; (3) a 6 months or more cessation of menses after a period of menstruation (***Secondary amenorrhea).***

- A moderately obese girl (20% to 30% above ideal weight) may have early-onset menstruation, whereas delay of onset is known to be related to malnutrition (starvation such as that with anorexia). Girls who exercise strenuously before menarche can have delayed onset of menstruation until about 18 years of age.
- Although amenorrhea is not a disease, it is often a sign of one. Still, most commonly and most benignly, amenorrhea is a result of pregnancy.
- It also can result from anatomic abnormalities such as outflow tract obstruction, anterior pituitary disorders, other endocrine disorders such as polycystic ovary syndrome, hypothyroidism or hyperthyroidism, chronic diseases, such as type 1 diabetes, medications, such as phenytoin (Dilantin), drug abuse (alcohol, opiates, marijuana, cocaine), oral contraceptive use.

Hypogonadotropic amenorrhea reflects a problem in the central hypothalamic-pituitary axis. In rare instances, a pituitary lesion or genetic inability to produce FSH and LH is at fault.

Hypogonadotropic amenorrhea often results from hypothalamic suppression as a result of two principal influences: stress (in the home, school, or workplace) or a sudden and severe weight loss, eating disorders, strenuous exercise, or mental illness.

Assessment of amenorrhea begins with a thorough history and physical examination.

- An important initial step is to confirm that the woman is not pregnant.
- Diagnostic tests may include CBC, UA, FSH level, thyroid-stimulating hormone (TSH) and Prolactin levels, CT scan.

Management

Many causes are potentially reversible (e.g., stress, weight loss for nonorganic reasons).

- Stress management (deep- breathing exercises).
- Decrease or discontinue medications known to affect menstruation.
- Correct weight loss.

- Eliminate substance abuse
- Estrogen replacement therapy to stimulate the development of secondary sexual characteristics.
- Calcium supplementation for osteoporosis prevention (Early menopause).

Cyclic perimenstrual pain and discomfort

1. Dysmenorrhea

- Pain during or shortly before menstruation , is one of the most common gynecologic problems in women of all ages.
- Many adolescents have dysmenorrhea in the first 3 years after menarche.
- Young adult women ages 17 to 24 years are most likely to report painful menses.
- It has been estimated that up to 10% of women with dysmenorrhea have severe enough pain to interfere with their functioning for 1 to 3 days a month.
- Dysmenorrhea more common in women who smoke and who are obese.
- Severe dysmenorrhea is also associated with early menarche, nulliparity, and lack of physical exercise.

- Symptoms usually begin with menstruation, although some women have discomfort several hours before onset of flow.
- The range and severity of symptoms are different from woman to woman and from cycle to cycle in the same woman.
- Symptoms of dysmenorrhea may last several hours or several days.
- Pain is usually located in the suprapubic area or lower abdomen.
- Women describe the pain as sharp, cramping, or as a steady dull ache; pain may radiate to the lower back or upper thighs.

Traditionally dysmenorrhea is differentiated as primary or secondary.

A. Primary dysmenorrhea

- Is a condition associated with ovulatory cycles.
- During the luteal phase and subsequent menstrual flow, prostaglandin F2-alpha (**PGF2α)** is secreted. Excessive release of **PGF2α** a increases the amplitude and frequency of uterine contractions and causes vasospasm of the uterine arterioles, resulting in ischemia and cyclic lower abdominal cramps.
- Systemic responses to **PGF2α** include backache, weakness, sweats, gastrointestinal symptoms (anorexia, nausea, vomiting, and diarrhea), and central nervous system symptoms (dizziness, syncope, headache, and poor concentration).
- Pain usually begins at the onset of menstruation and lasts 12 to 72 hours.

- Primary dysmenorrhea usually appears 6 to 12 months after menarche when ovulation is established.
- Most commonly experienced by women in their late teens and early twenties; the incidence declines with age.

Management

- Heat (heating pad or hot bath) minimizes cramping by increasing vasodilation and muscle relaxation and minimizing uterine ischemia.
- Massaging the lower back can reduce pain by relaxing paravertebral muscles and increasing the pelvic blood supply.
- Yoga, acupuncture, and meditation
- Exercise helps increased vasodilation, also releases endogenous opiates (specifically beta-endorphins), suppresses prostaglandins, and shunts blood flow away from the viscera, resulting in reduced pelvic congestion.

- One specific exercise that nurses can suggest is pelvic rocking .

- Maintaining good nutrition (decreased salt and refined sugar intake 7 to 10 days before expected menses may reduce fluid retention).
- Natural diuretics such as cranberry juice, watermelon may help reduce edema and related discomforts.
- A low –fat vegetarian diet and vitamin E intake.
- Use medications such as NSAIDs (prostaglandin synthesis inhibitors). NSAIDs are most effective if started several days before menses or at least by the onset of bleeding (worn woman to report dark – colored stool).
- OCPs attributed to decreased prostaglandin synthesis. OCPs effective in relieving symptoms of primary dysmenorrhea.

B. Secondary dysmenorrhea

- Is menstrual pain that develops later in life than primary dysmenorrhea, typically after age 25.
- It is associated with pelvic abnormalities such as endometriosis, pelvic inflammatory disease, endometrial polyps, or fibroids.
- Pain characterized by dull lower abdominal aching radiating to the back or thighs. Women often experience feelings of bloating or pelvic fullness.

Management

Is directed toward removal of the underlying pathology.

2. Premenstrual syndrome (PMS) متلازمة ما قبل الحيض

Premenstrual dysphoric disorder (PMDD) اضطراب ما قبل الطمث الاكتئابي

- Approx. 75% of women experience premenstrual syndrome at some time in their reproductive lives.
- PMS is a complex, poorly understood condition that includes one or more of a large number (more than 150) of physical and psychologic symptoms beginning in the luteal phase of the menstrual cycle, occuring to such a degree that lifestyle or work is affected, and followed by a symptom – free period.
- Symptoms include: fluid retention (abdominal bloating, pelvic fullness, edema of the lower extremities, breast tenderness, and weight gain), behavioral or emotional changes (depression, crying spells, irritability, panic attacks, and impaired ability to concentrate), premenstrual cravings (sweets, salt, increased appetite, and food binges), and headache, fatigue, and backache.

PMS Symptoms

1. Acne

2. Back Pain

3. Bloated Abdomen

4. Cravings for Certain Food

5. Constipation

6. Crying Spells

7. Fast Heartbeat

8. Feeling Irritable, Tense, or Anxious

9. Feeling Tired

10. Headache

11. Hot Flashes

12. Joint Pain

13. Mood Swings

14. Tender & Swollen Breasts

15. Trouble Concentrating

16. Swollen Hands or Feet

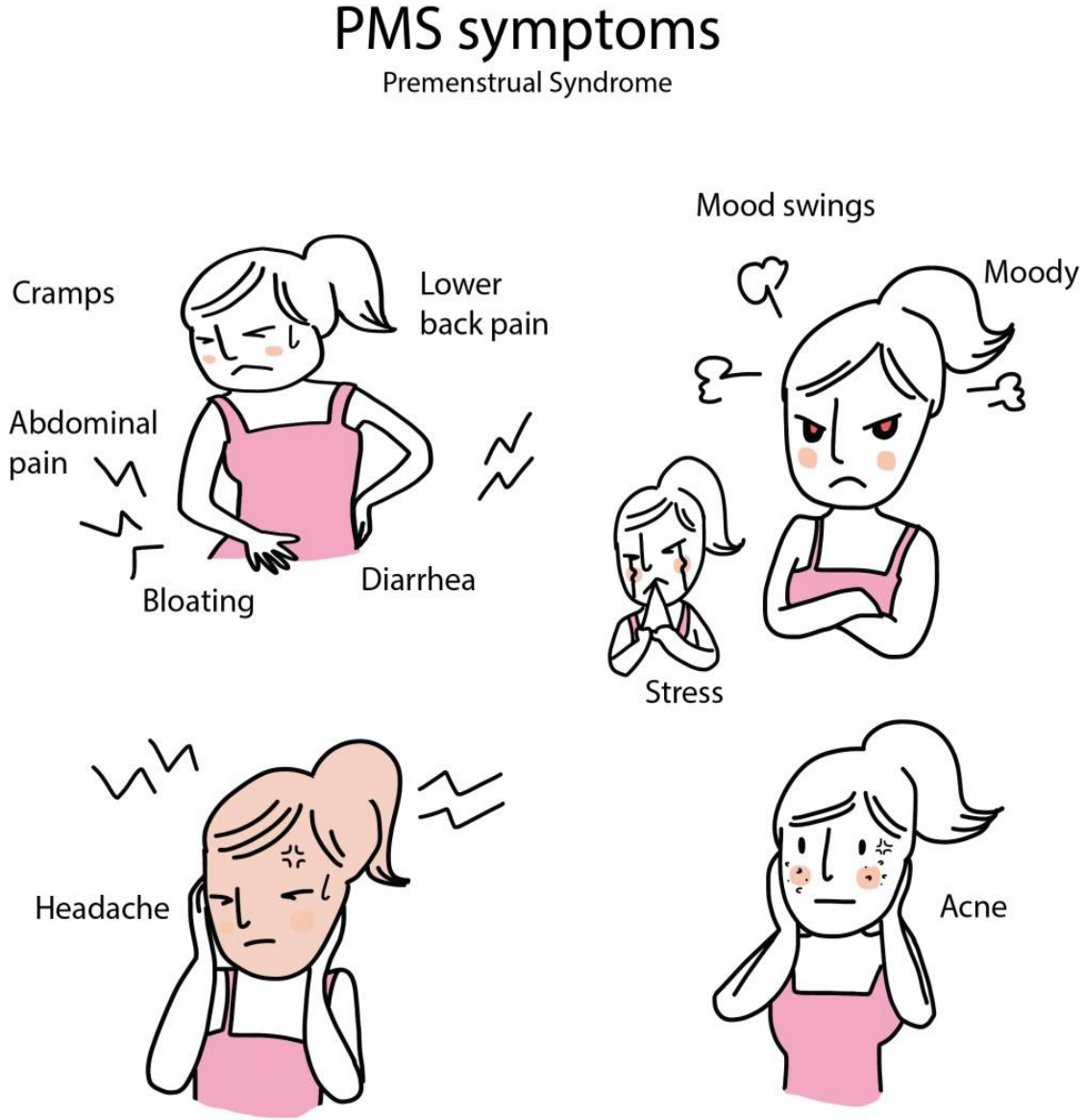
17. Wanting to be Alone

18. Weight Gain

- All age –group are affected, with women in their twenties and thirties most frequently reporting symptoms.
- Ovarian function is necessary for the condition to occur because it does not occur before puberty, after menopause, or during pregnancy.
- The condition is not depended on the presence of monthly menses: women who have had a hysterectomy without bilateral salpingo-oophorectomy (BSO) still can have cyclic symptoms.
- PMDD is a more severe variant of PMS in which women have marked irritability, dysphoria انزعاج او اضطراب , mood lability, anxiety, fatigue, appetite changes, and a sense of feeling overwhelmed شعور بالغضب

Diagnosis

- Is made when a specific group of symptoms consistent with PMS occur in the luteal phase and resolve within a few days of menses onset.
- These symptoms can be physical and / or behavioral, breast tenderness, bloating, headache, irritability, anxiety, and depression.



Management

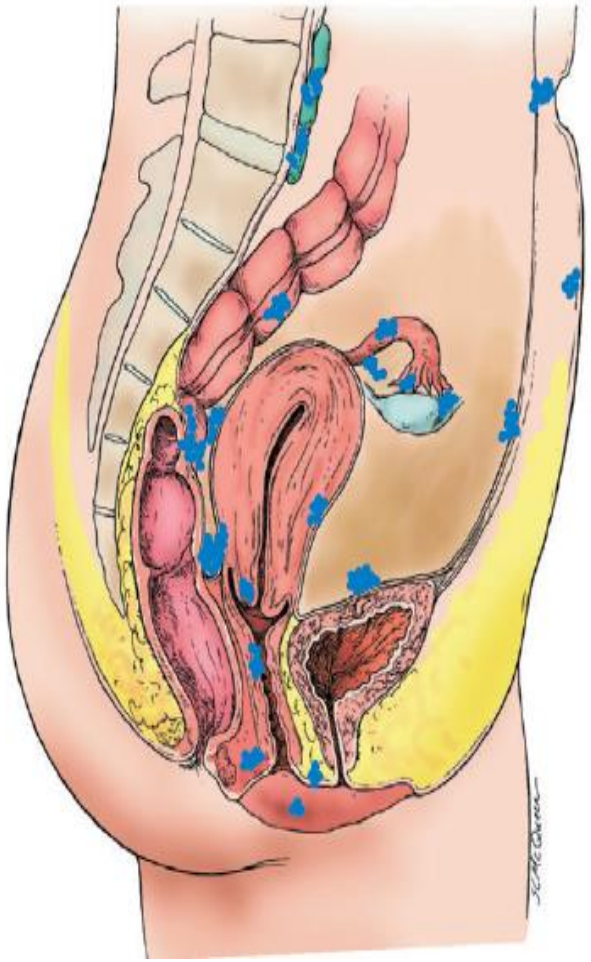
- Education is an important component of the management of PMS.
- Diet and exercise (refrain smoking, limited sugar, red meat, alcohol, caffeinated beverages).
- Encourage to include whole grains, seeds, nuts, vegetables, fruits, and vegetable oils.
- Three small-to- moderate sized meals and three small snacks a day that are rich in complex carbohydrates and fiber help reduce symptoms.
- Nutritional supplements: Calcium and vitamin B6.
- Medications used in the treatment of PMS include:

  Diuretics, prostaglandin inhibitors (NSAIDs), progesterone, OCPs.

- 60 minutes or more of physical exercise according to PMS symptoms is best.

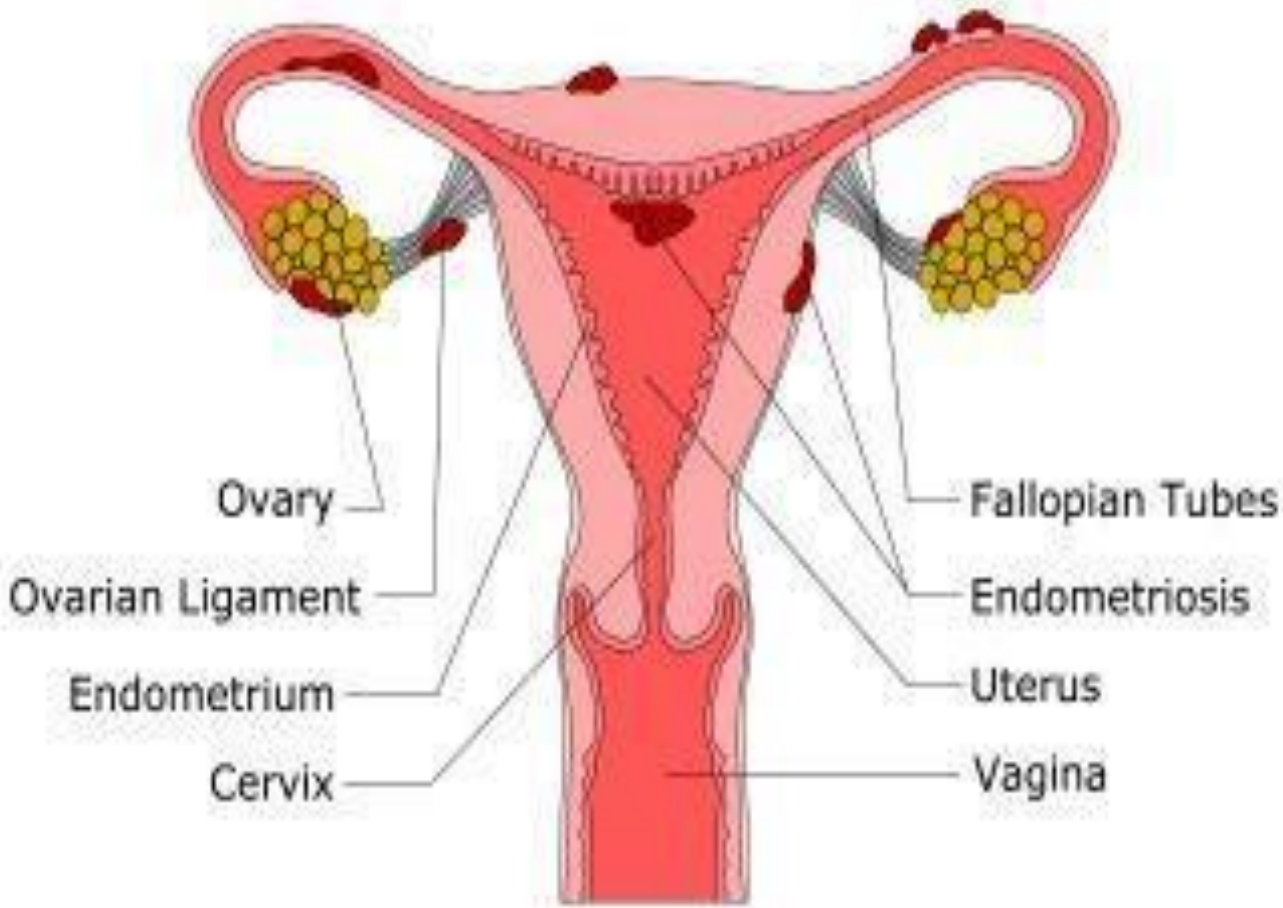
Endometriosis

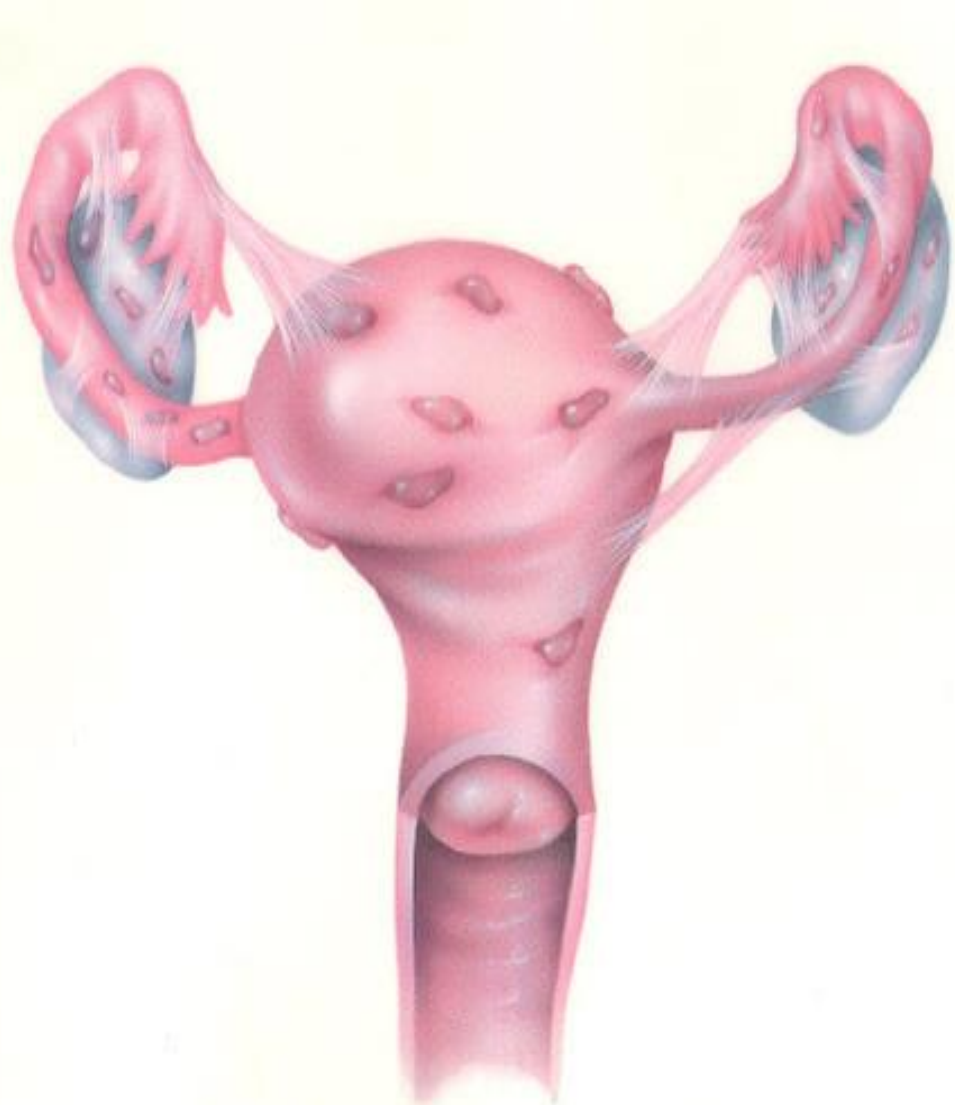
- Is the presence and growth of endometrial tissue outside of the uterus.
- The tissue may be implanted on the ovaries, uterine ligaments, rectovaginal septum, sigmoid colon, pelvic peritoneum, cervix, or inguinal area.
- Endometrial lesions have been found in the vagina and in surgical scars and on the vulva, perineum, and bladder.
- They have also been found on sites far from the pelvic area, such as thoracic cavity, gallbladder, and heart.
- The places where the tissue attaches are called implants, or lesions.



Common sites of endometriosis

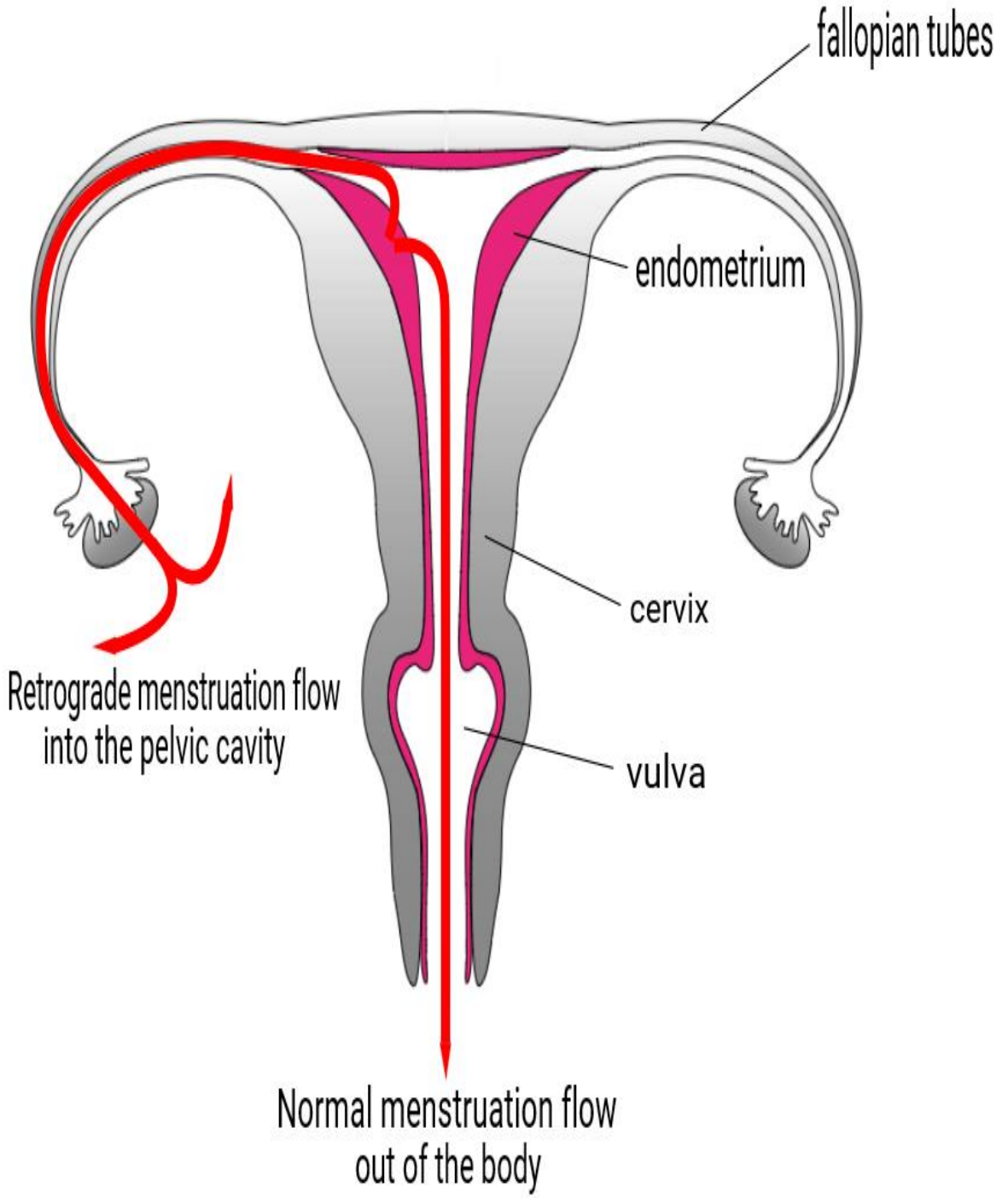
ENDOMETRIOSIS

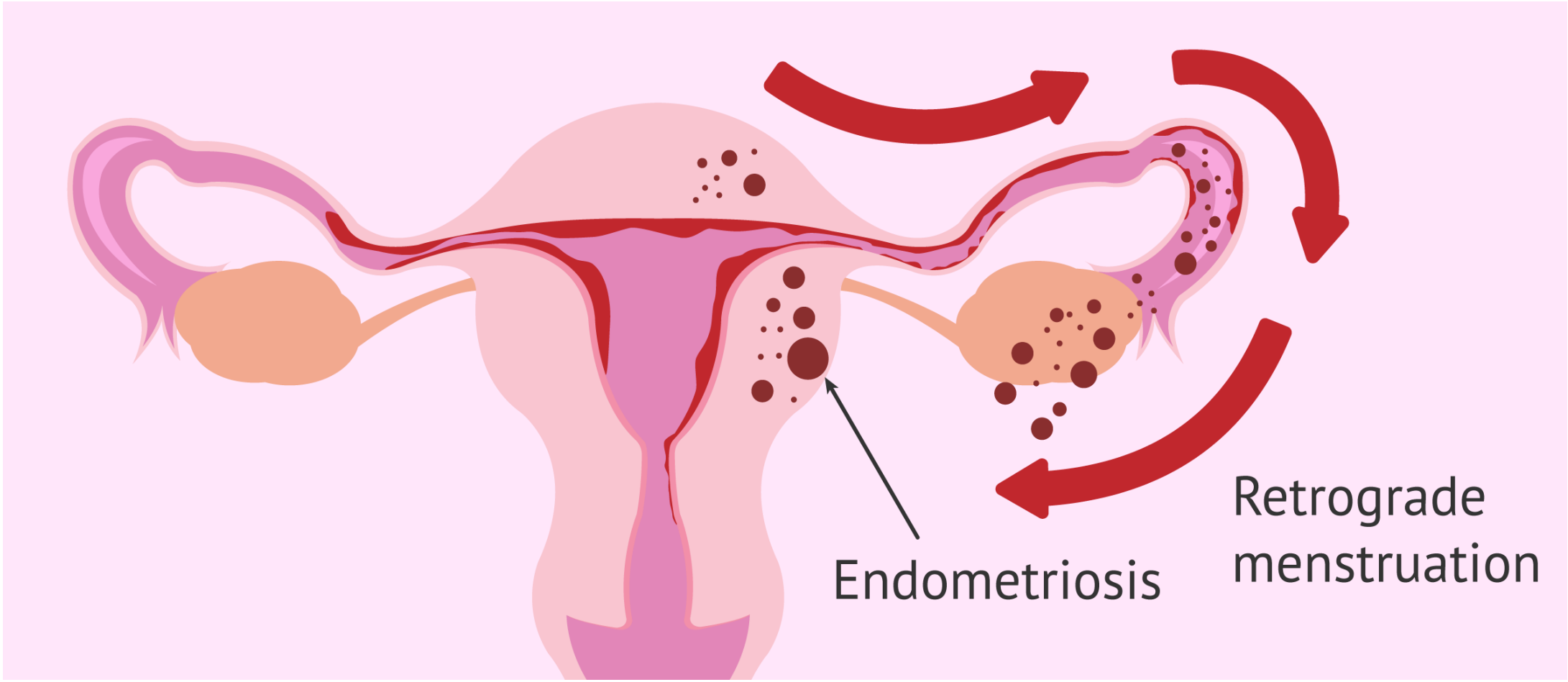




- Endometrial tissue found outside the uterus responds to hormones released during the menstrual cycle in the same way as endometrial lining within the uterus.
- At the beginning of the menstrual cycle, when the lining of the uterus is shed and menstrual bleeding begins, these abnormally located implants swell and bleed also.
- Endometriosis is a common gynecological problem, affecting from 5% to 15 % in reproductive age, 30% to 45% in infertile women, and 33% in women with chronic pelvic pain.

- The etiology and pathology of this condition continue to be poorly understood.
- One of the most accepted theories is transplantation or retrograde menstruation.
- According to this theory, endometrial tissue is refluxed through the uterine tubes during menstruation into the peritoneal cavity, where it implants on the ovaries and other organs.




Endometriosis
Retrograde
menstruation

Risk of developing endometriosis have been identified:

- Increasing age
- Family history of endometriosis in a first-degree relative
- Short menstrual cycle (less than 28 days)
- Long menstrual flow (more than 1 week)
- Young age of menarche (younger than 12)
- Few (one or two) or no pregnancies.

Major symptoms of endometriosis are:

- Pelvic pain
- Dysmenorrhea
- Dyspareunia (painful intercourse)
- Women experience chronic noncyclic, pelvic pain, pelvic heaviness, or pain radiating into the thighs.
- Many women report bowel symptoms such as diarrhea, pain with defecation, and constipation caused by avoiding defecation because of the pain.
- Other symptoms include abnormal bleeding (hypermenorrhea, menorrhagia, or premenstrual staining), and pain during exercise as a result of adhesions.
- Impaired infertility.

Management

- Women without pain who do not want to become pregnant need no treatment.
- Women with mild pain who may desire a future pregnancy, treatment may be limited to use of NSAIDs during menstruation.
- Hormonal antagonist that suppress ovulation and reduce endogenous estrogen production and subsequent endometrial lesion growth are currently used to treat mild to severe endometriosis in women who wish to become pregnant at future time.
- GnRH agonist therapy acts by suppressing pituitary gonadotropin secretion (creating a temporary pseudomenopause).

- Women who have severe pain and can postpone pregnancy may be treated with continuous OCPs that have a low estrogen – to – progestin ratio to shrink endometrial tissue.
- Surgical intervention is often needed for severe, acute symptoms.
- For women who do not want to preserve their ability to have children, the only definite cure is total abdominal hysterectomy [TAH] with bilateral salpingectomy and oophorectomy (BSO).
- In women who are in their childbearing years and who want children if the disease does not prevent pregnancy, surgery or laser therapy is used to carefully removes as much endometrial tissue as possible to maintain reproductive function.

Alterations in cyclic Bleeding (Dysfunctional uterine bleeding (DUB).

- Women often experience changes in amount, duration, interval, or regularity of menstrual cycle bleeding.
- Commonly women worry about menstruation that is infrequent, bleeding occurs at intervals of more than 35 days (**Oligomenorrhea),** is scanty at normal intervals **(hypomenorrhea)**, is excessive and heavy (**menorrhagia),** or occurs between periods (**metrorrhagia),** or too frequent periods (**Polymenorrhea).**

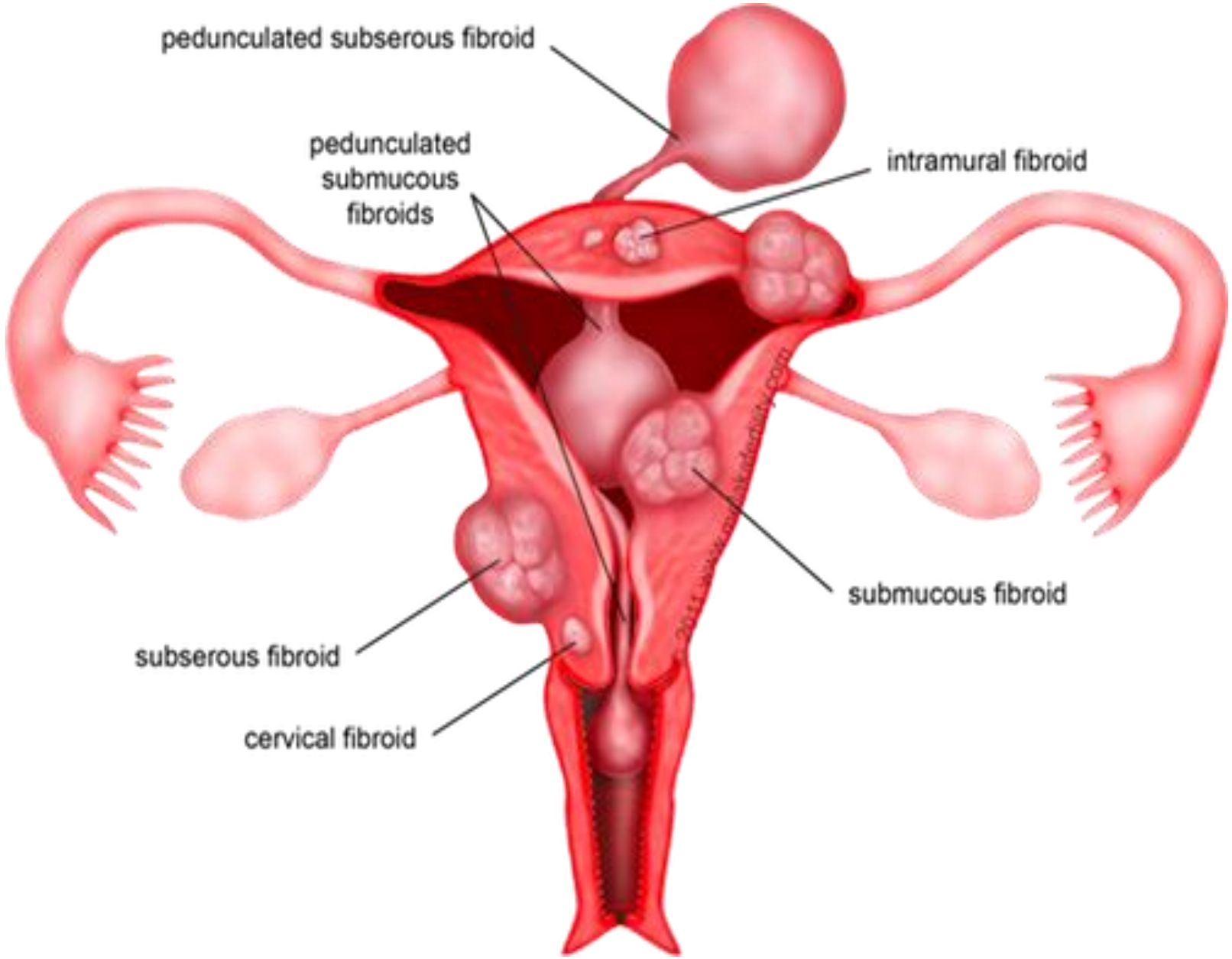
- Uterine leiomyomas (fibroids or myomas) are a common cause of menorrhagia.
- Fibroids are benign tumors of the smooth muscle of the uterus with an unknown cause.
- Fibroids occur in approx. one fourth of women of reproductive age.
- Treatment for ***menorrhagia*** depends on the cause of the bleeding. If the bleeding is related to the IUD, discuss other contraceptive options.

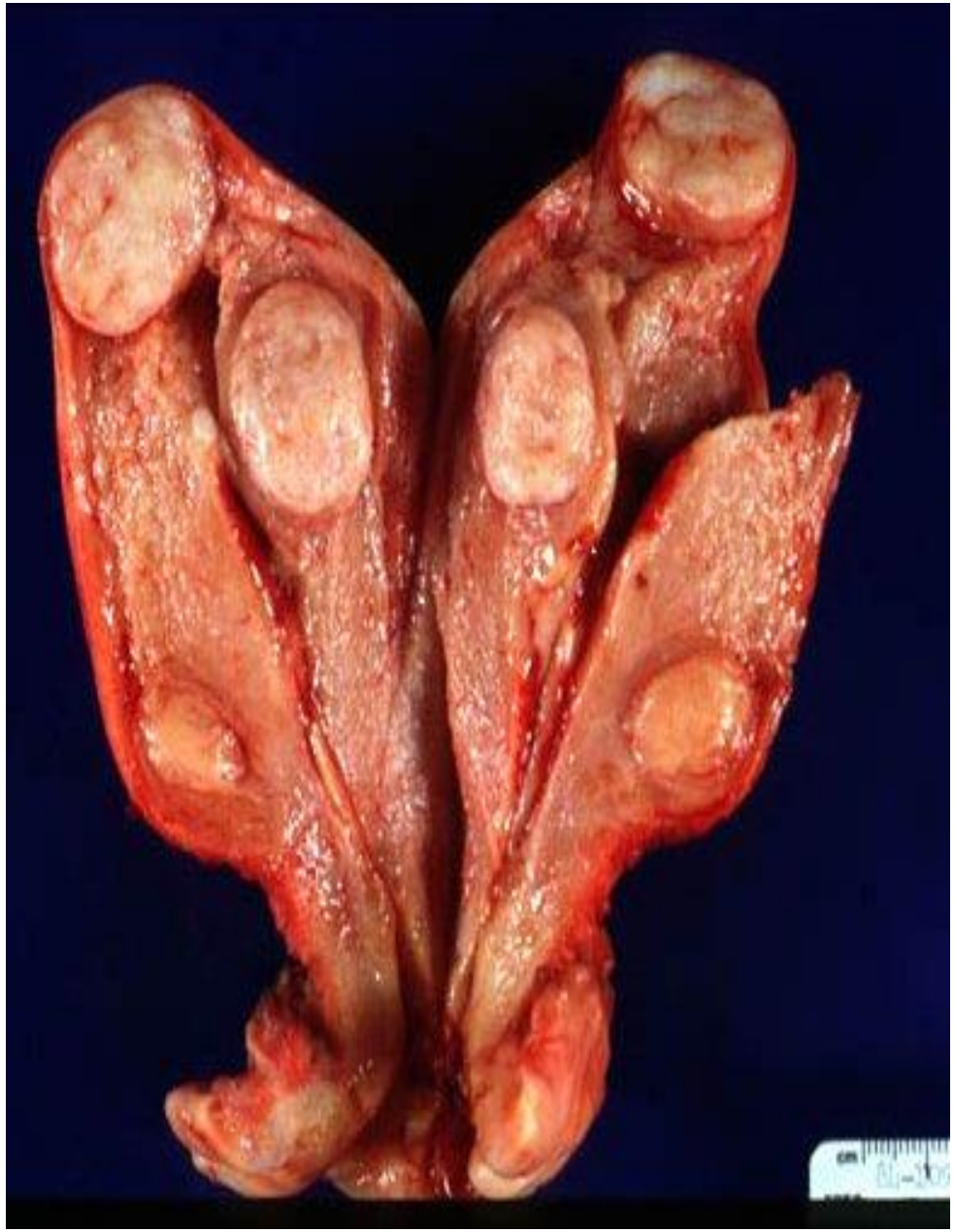
Treatment include medical and surgical management.

- Medical treatment option include estrogen, progestogen , NSAIDS, antifibrinolytic agents, and GnRH.

- Surgical include myomectomy (removal of the tumors only) and hysterectomy.

Warn women with ***metrorrhagia*** to avoid using aspirin because of its tendency to increase bleeding.


pedunculated subserous fibroid
pedunculated submucous fibroids
intramural fibroid
submucous fibroid
subserous fibroid
cervical fibroid



Infections

Infections of the reproductive tract can occur throughout a woman's life and are often the cause of significant reproductive morbidity including ectopic pregnancy and tubal factor infertility.

Sexually Transmitted Infections

Sexually transmitted infection (STIs) are infections or infectious disease syndromes transmitted primarily by sexual contact. The term STIs includes more than 25 infectious organisms that are transmitted through sexual activity.

Sexually Transmitted Infections

Bacteria

- Chlamydia
- Gonorrhea
- Syphilis
- Group B streptococci

Viruses

- Human immunodeficiency virus
- Herpes simplex virus, types 1 and 2
- Viral hepatitis A and B
- Human papillomavirus

Protozoa

- Trichomoniasis

Prevention

- Preventing infection (primary prevention) is the most effective way of reducing the adverse consequences of STIs for women.
- Prompt diagnosis and treatment of current infections (secondary prevention) also can prevent personal complications and transmission to others.
- Prevention the spread of STIs requires that women at risk for transmitting or acquiring infections change their behavior.
- A critical first step is to include questions about woman's sexual history, the CDC has created the " 5 Ps" as a guide to questions that help to assess risky behaviors: partners, practices, prevention of pregnancy, protection from STIs, and history of STIs

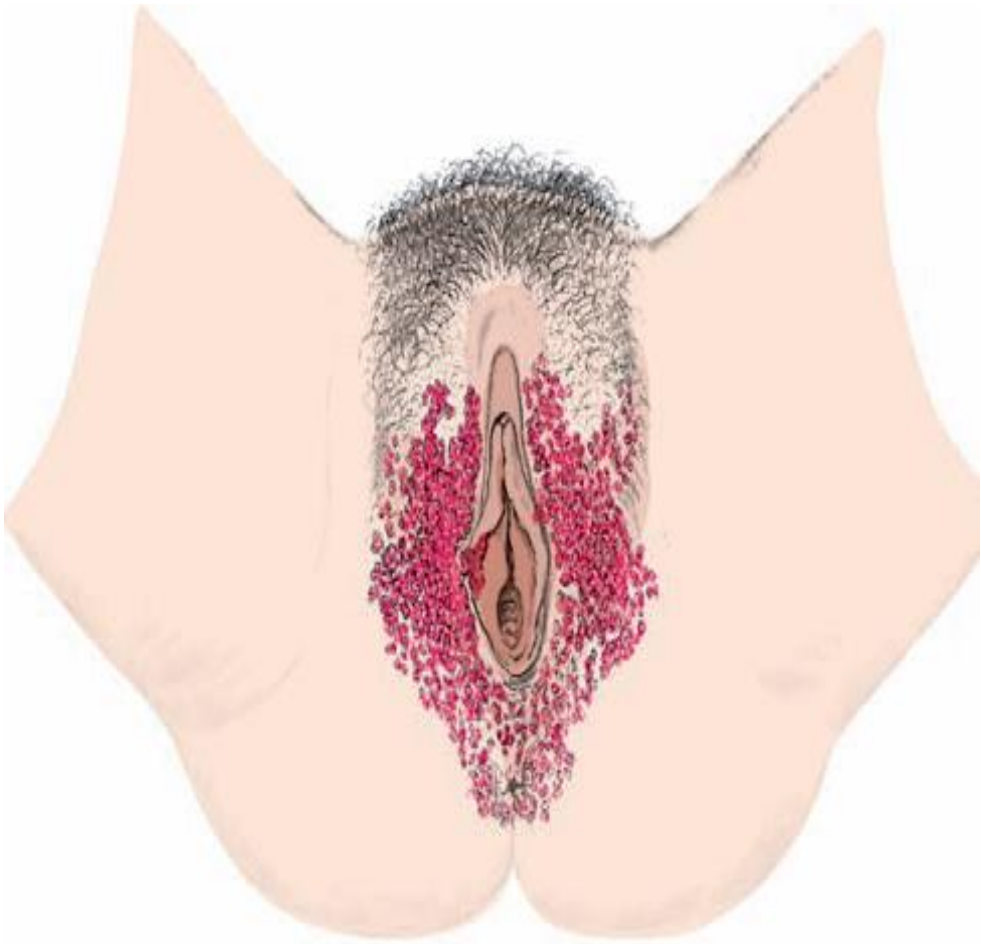
Sexually Transmitted Infections / Human Immunodeficiency Virus Prevention Strategies

- Safer sex practices (Risk-reduction measures). An essential component of primary prevention is counseling women regarding safer sex practices, including knowledge of her partner, reduction of number of partners, low risk sex, and avoiding the exchange of body fluids.
- Using physical barrier such as male condom, female condom
- Vaccination is an effective method for the prevention of some STIs such as hepatitis B and papillomavirus (HPV).
- Hepatitis B vaccine is recommended for women at high risk for STIs.
- A vaccine is available for HPV types 6,11,16 and 18 for girls and women 9 to 26 years of age.

Sexually Transmitted Viral Infections

Human Papillomavirus (HPV)

- Also known as genital warts.
- Most common viral STI
- There are several that can cause genital cancer, with two specific types (16 and 18) that are highly risk for causing cancers of the cervix, vagina, vulva, penis, and oropharyngeal area.
- Genital warts in women are most seen in the posterior part of the introitus
- However, lesions also are found on the buttocks, vulva, vagina, anus, and cervix.



Screening and Diagnosis

- History, evaluation of signs and symptoms, Papanicolaou (Pap) test, and physical examination are used in making a diagnosis.
- The only definitive diagnostic test for presence of HPV is histologic evaluation of a biopsy specimen.

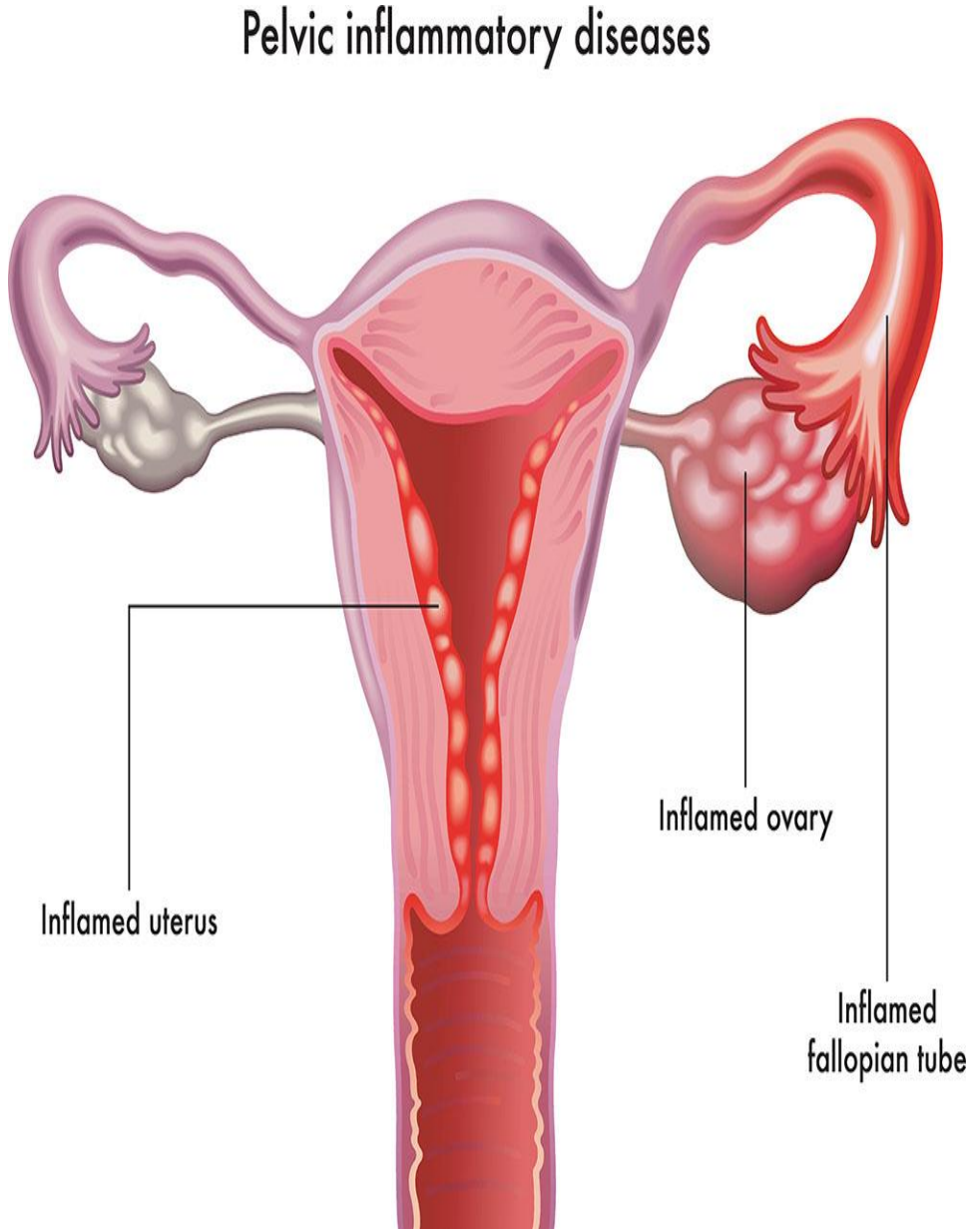
Management

- Untreated warts may resolve on their own in young women, as their immune system may be strong enough to fight the HPV infection.
- A topical application of podofilox 0.5% solution or gel may be applied to the warts.
- Cryotherapy العلاج بالتبريد, electrocautery, and laser therapy may also be used.
- Bathing with an oatmeal solution and drying the area with a cool hair dryer will provide some relief.

- Keeping the area clean and dry will also decrease growth of the warts.
- Wearing cotton underwear and loose-fitting clothes that decrease friction and irritation.
- Discomfort. Women should be advised to maintain a healthy.
- Lifestyle to aid the immune system; women can be counseled regarding diet, rest, stress reduction, and exercise.
- Patient counseling
- A history of HPV should be encouraged to use latex condoms and a vaginal spermicide for intercourse to decrease acquisition or transmission of the infection.

Pelvic Inflammatory Disease (PID)

- Is an infectious process that most commonly involves the uterine tubes (salpingitis), uterus (endometritis), and, more rarely, the ovaries and peritoneal surfaces.
- Multiple organisms cause PID, and most cases are associated with more than one organism.
- C. trachomatis is estimated to cause one half of all cases of PID.
- Gonorrhea and chlamydia, a wide variety of anaerobic and aerobic bacteria are recognized to cause PID.



- Most PID results from ascending spread of microorganisms from the vagina and endocervix to the upper genital tract.
- This spread most frequently happens at the end of or just after menses following reception of an infectious agent.
- PID also may develop after an elective abortion, pelvic surgery, or childbirth.

Risk factors for acquiring PID

- Are those associated with the risk of contracting an STI—a history of PID.
- Intercourse with a partner who has untreated urethritis
- Recent IUD insertion.

Screening and diagnosis

- The CDC (2002, 2006) recommends treatment for PID in all sexually active young women and others at risk for STIs, if the following criteria are present and no other cause(s) of the illness can be found:

- Lower abdominal tenderness, bilateral adnexal tenderness (accessory ملحقات) , and cervical motion tenderness.
- Other criteria for diagnosing PID include oral temperature 38.3° C or above, abnormal cervical or vaginal discharge, elevated erythrocyte sedimentation rate, elevated C-reactive protein, and laboratory documentation of cervical infection with *N. gonorrhoeae or C. trachomatis.*

Women who have had PID are at increased risk for;

- Ectopic pregnancy
- Infertility
- Chronic pelvic pain
- Dyspareunia (painful intercourse)
- Pyosalpinx (pus in the uterine tubes)
- Tuboovarian abscess
- Pelvic adhesions.

The ***symptoms of PID*** vary, depending on whether the infection is acute, subacute, or chronic.

- Pain is common to all types of infection. It may be dull, cramping, and intermittent (subacute) or severe, persistent, and incapacitating (acute).
- Women may also report one or more of the following: fever, chills, nausea and vomiting, increased vaginal discharge, symptoms of a urinary tract infection, and irregular bleeding.
- Abdominal pain is usually present.

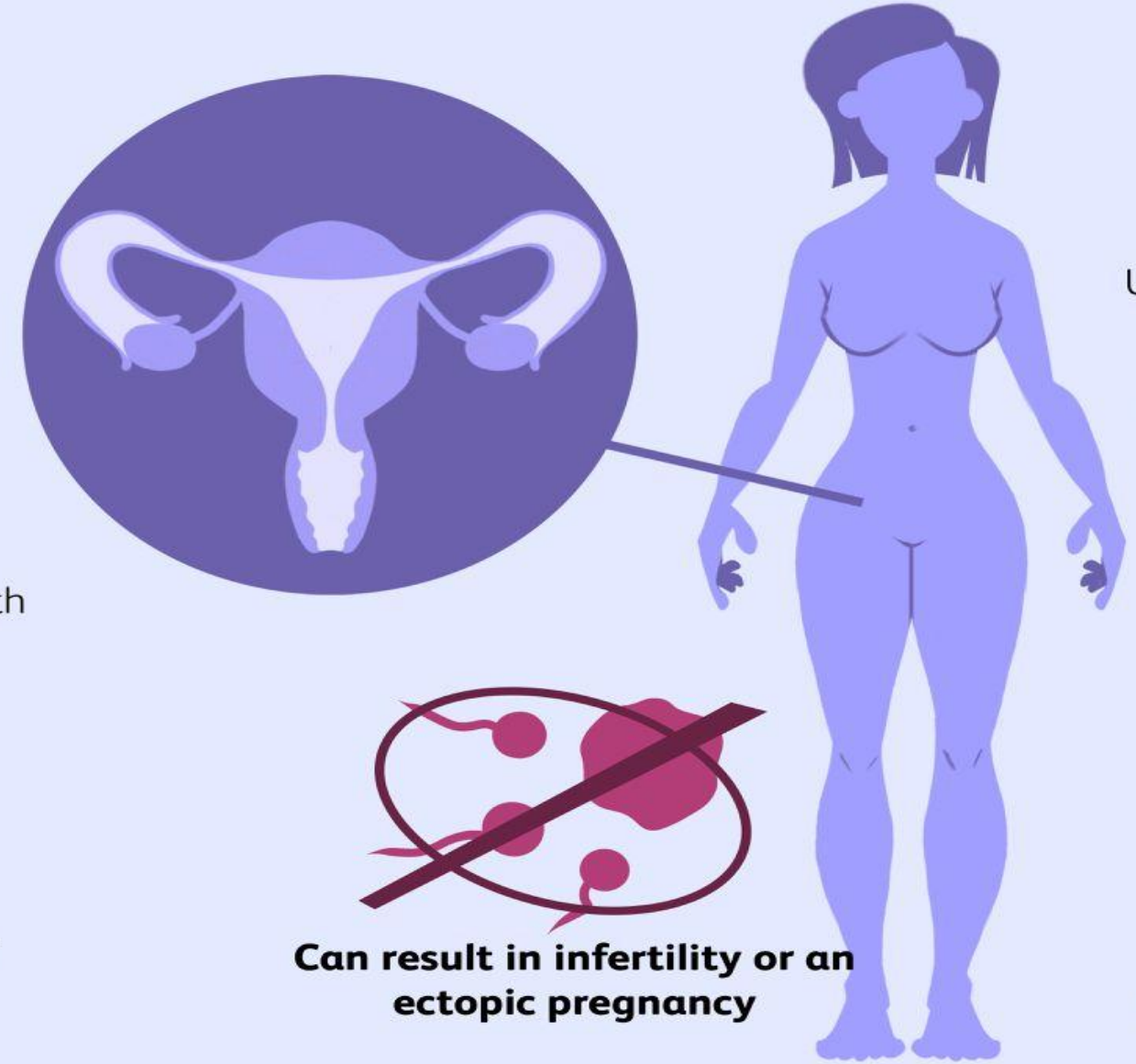
Symptoms of Pelvic Inflammatory Disease

Key symptoms:

Aching in the lower abdomen and pelvis

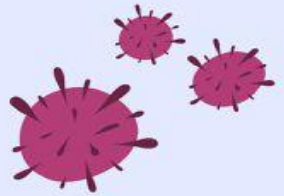
Excess vaginal discharge with a foul odor

Pain or bleeding during or shortly after sex



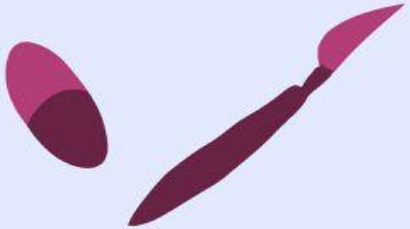
Can result in infertility or an ectopic pregnancy

Risk factors:



Untreated vaginal or cervical infections

Unprotected sex



Treatment includes antibiotics and surgery

Management

- Generally, a broad-spectrum antibiotic is used.
- Follow-up laboratory work after treatment should include endocervical cultures for a test of cure.
- Health education is central to effective management of PID.
- Refrain from sexual intercourse until their treatment is completed.
- Contraceptive counseling should be provided.

Thanks