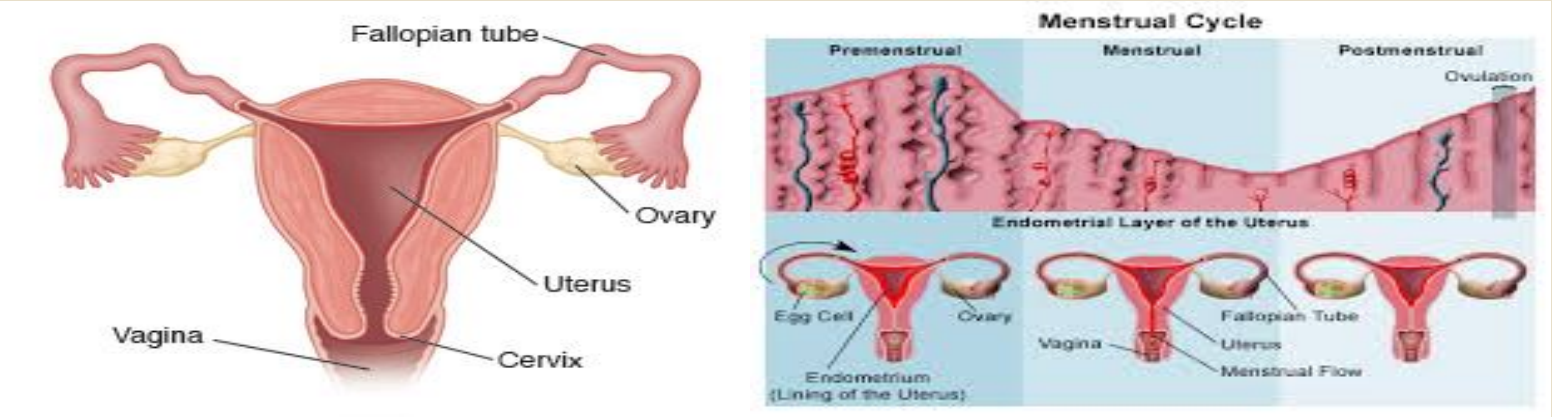
Abnormal Uterine Bleeding

Dr.Yasamin Hamza Sharif
Medical College /5th stage lecture



Abnormal uterine bleeding (definitions & terms)

- **Abnormal uterine bleeding (AUB)** :is a term applied to any alteration & disturbance in regularity , duration and amount of menstrual flow.

The average menses last from 3-7 days with a mean blood loss of 35ml.If the loss of > 80 ml it is called menorrhagia and this usually associated with anemia.

Terms used in gynecology to describe various forms of AUB:

- -menorrhagia: prolonged and increased menstrual flow
- -polymenorrhoea : menses occurring at < 21 days interval.
- -oligomenorrhoea: mense at >35 days interval.
- -hypermenorrhoea: excessive regular menstrual bleeding.
- -metrorrhagia: uterine bleeding at irregular interval.
- -menometrorrhagia: prolonged menses & inter-menstrual bleeding.

Etiology of AUB: it can be classified into .organic and non-organic

- Non-organic AUB(dysfunctional uterine bleeding DUB) : is referred to any uterine bleeding with no identifiable pathology(i.e.) ((due to alteration in neuroendocrinological function))

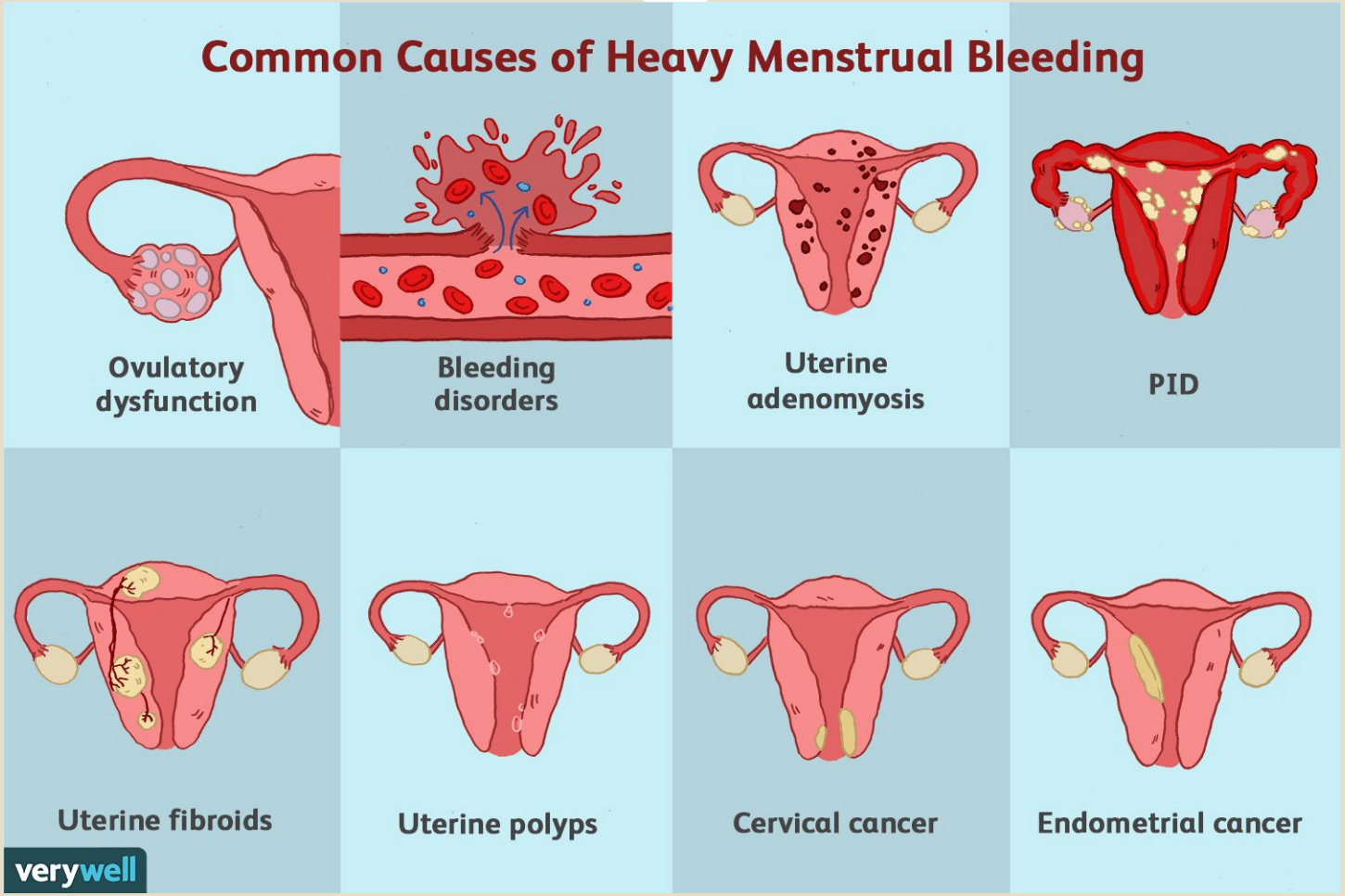
Causes of AUB:

- **1-Non –organic causes(DUB)**: about 90% of cases are anovulatory; 10% are ovulatory.
- **Anovulatory DUB:** during an **anovulatory cycle,** the corpus luteum does not form. Thus, the normal cyclical secretion of progesterone does not occur, and estrogen stimulates the endometrium unopposed. Without progesterone, the endometrium continues to proliferate, eventually outgrowing its blood supply; it then sloughs incompletely and bleeds irregularly and sometimes profusely or for a long time.

- **B-Ovulatory DUB** :in **ovulatory abnormal uterine bleeding,** progesterone secretion is prolonged; irregular shedding of the endometrium results, probably because estrogen levels remain low, near the threshold for bleeding (as occurs during menses). In obese women, ovulatory AUB can occur if estrogen levels are high, resulting in amenorrhea alternating with irregular or prolonged bleeding. This tends to occur more in women age 35-45 years as regular ,heavy & painful bleeding

- **2-Organic causes of AUB:**
- **A-Local disorders of AUB**:
- -fibroid especially sub mucous -adenomyosis -endometrial or endocervical polyp –IUCD -PID -maliganancy of the cx. or ut. hormone producing ovarian tumour.

- **B-Systemic causes of AUB:**
- -endocrine disorders: hyper or hypothyroidism -D.M -adrenal disorders -prolactin disorders
- -disorders of hemostasis : as ITP -von-willbrands disease -deficiency of factor Π ,V,VΠ
- -Liver disease & renal disease : it alter the excretion of estrogen & progesterone.
- -Medications & drugs :as steroids , anticoagulants & cytotoxics.


Common Causes of Heavy Menstrual Bleeding
Ovulatory dysfunction
Bleeding disorders
Uterine adenomyosis
PID
Uterine fibroids
Uterine polyps
Cervical cancer
Endometrial cancer
verywell

- **Complications**
- Chronic bleeding may cause iron deficiency anemia.
- If AUB is due to chronic anovulation, infertility may also be present.

Symptoms and Signs

- Compared with typical menses, bleeding may
- Occur more frequently (menses < 21 days apart—polymenorrhea)
- Involve more blood loss (> 7 days or > 80 mL) during menses (menorrhagia, or hypermenorrhea)
- Occur frequently and irregularly between menses (metrorrhagia)
- Involve more blood loss during menses and frequent and irregular bleeding between menses (menometrorrhagia)

- **Ovulatory AUB** tends to cause excessive bleeding during regular menstrual cycles. Women may have other symptoms of ovulation, such as premenstrual symptoms, breast tenderness, midcycle cramping pain (mittelschmerz), a change in basal body temperature after ovulation, and sometimes dysmenorrhea.
- **Anovulatory AUB** occurs at unpredictable times and in unpredictable patterns and is not accompanied by cyclic changes in basal body temperature.

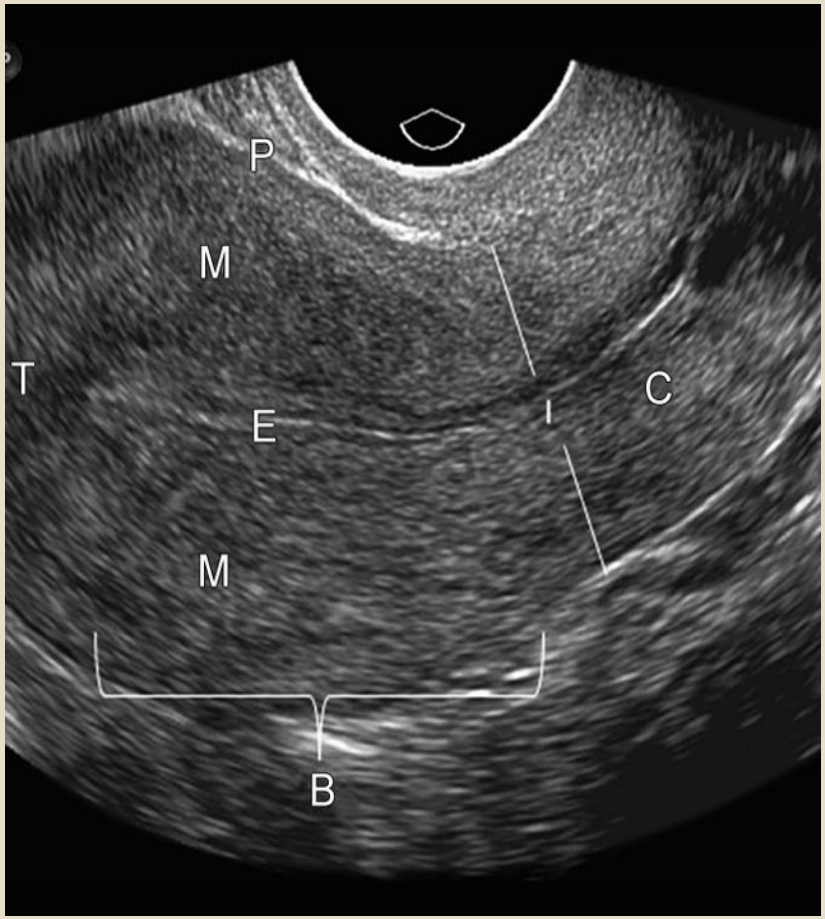
Diagnosis

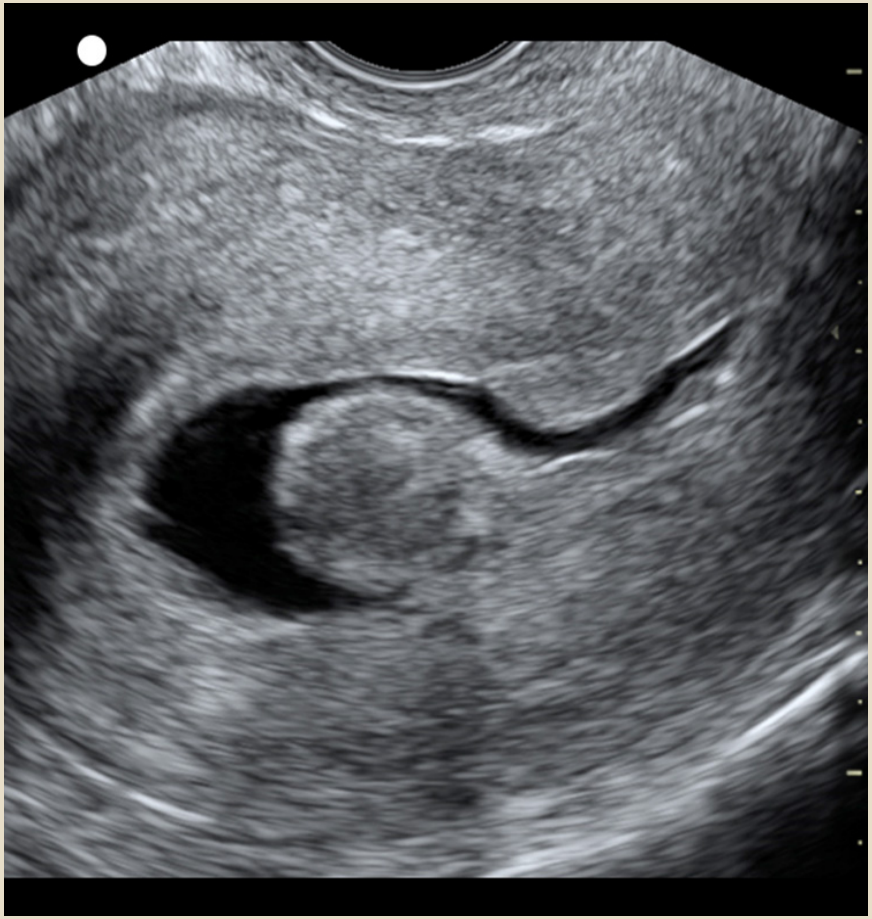
Exclusion of other potential causes of organic AUB causes by investigation:

- CBC, pregnancy test, and hormone measurement (eg, thyroid-stimulating hormone [TSH], prolactin)
- Usually transvaginal ultrasonography and endometrial sampling
- Often sonohysterography and/or hysteroscopy

- **Additional testing:**
- **Transvaginal ultrasonography:** is done if women have any of the following:
- Risk factors for endometrial cancer (eg, obesity, diabetes, hypertension, polycystic ovary syndrome, chronic eugonadal anovulation, hirsutism, other conditions associated with prolonged unopposed estrogen exposure)
- Age ≥ 35 (earlier if women have risk factors)
- Bleeding that continues despite use of empiric hormone therapy
- Pelvic organs that cannot be examined adequately during the physical examination
- Clinical evidence that suggests abnormalities in the ovaries or uterus
- Transvaginal ultrasonography can detect structural abnormalities, including most polyps, fibroids, other masses, endometrial cancer.

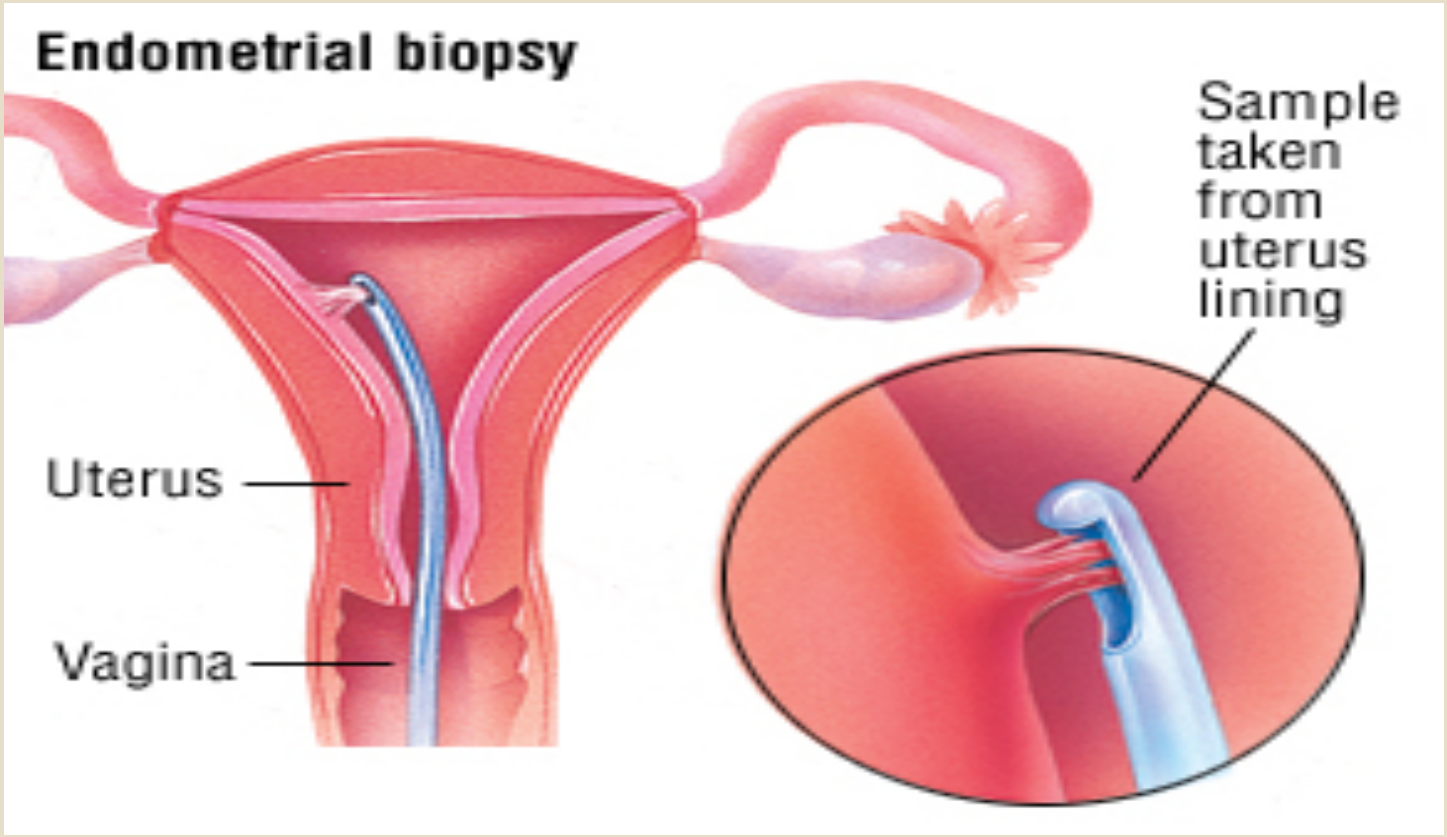
Transvaginal ultrasonography





- **Endometrial sampling**, only about 25% of the endometrium is analyzed, but sensitivity for detecting abnormal cells is about 97%.
- This test is usually recommended to rule out hyperplasia or cancer in women with any of the following:
- Age > 35 years with one or more risk factors for endometrial cancer
- Age < 35 years with multiple risk factors for endometrial cancer .
- Bleeding that is persistent, irregular, or heavy
- Irregular cycles that suggest chronic anovulatory bleeding
- Endometrial thickness that is > 4 mm, focal, or irregular, detected during transvaginal ultrasongraphy

Endometrial sampling



- **Directed biopsy** (with hysteroscopy) may be done to visualize the endometrial cavity directly and target the abnormal tissue. Most endometrial biopsy specimens contain proliferative endometrium, which confirms anovulation because no secretory endometrium is found.

Treatment of AUB aims to:

- Control of bleeding, usually with an NSAID, tranexamic acid, or hormone therapy
- In women with endometrial hyperplasia, prevention of endometrial cancer

Medical therapy to control bleeding:

- **-Nonhormonal treatments** :Choices include
  - NSAIDs, which reduce bleeding by 25 to 35% and relieve dysmenorrhea by reducing prostaglandin levels
  - Tranexamic acid, which inhibits plasminogen activator, reducing menstrual blood loss by 40 to 60%
- **-Hormone therapy** (eg, oral contraceptives, progestogens a long-acting progestin-releasing IUD) is often tried first in perimenopausal women. This therapy does the following:
- Suppresses endometrial development
- Reestablishes predictable bleeding patterns
- Decreases menstrual flow

- **Oral contraceptives** (OCs) are commonly given. OCs, used cyclically or continuously, can control AUB especially in patient seeking for contraception. Limited data suggest that they do the following:
- Decrease menstrual blood loss by 40 to 50%
- Decrease breast tenderness and dysmenorrhea
- Decrease risk of uterine and ovarian cancer

- **Progesterone or another progestin** can be used alone in the following cases:
- Estrogen is contraindicated (eg, for patients with cardiovascular risk factors or prior deep vein thrombosis).
- Estrogen is declined by the patient.

with cyclic progestin therapy (medroxyprogesterone acetate 10 mg/day or norethindrone acetate 5-10 mg/day) given for 21 days

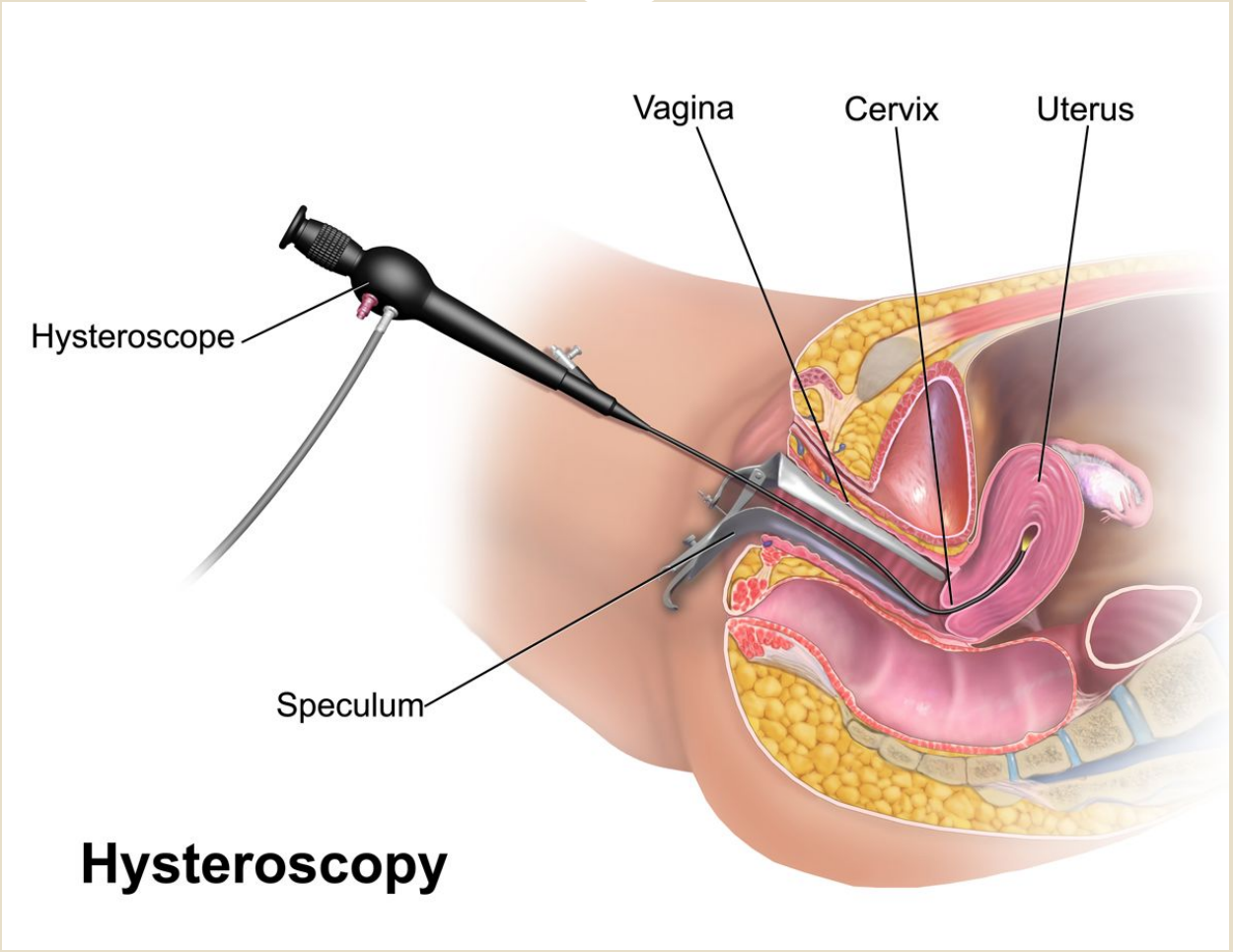
- If patients using cyclic progestins or progesterone wish to prevent pregnancy, contraception should be used. Contraceptive options include
- **A levonorgestrel-releasing intrauterine device (IUD):** It is effective in up to 97% by 6 mo, provides contraception, and relieves dysmenorrhea.
- **Depot medroxyprogesterone acetate injections:** They cause amenorrhea and provide contraception but may cause irregular spotting and reversible bone loss.

- **Danazol:** It reduces menstrual blood loss (by causing endometrial atrophy) but has many androgenic adverse effects, which may be lessened by using lower doses or a vaginal formulation. To be effective, danazol must be taken continuously, usually for about 3 months. It is usually used only when other forms of therapy are contraindicated.
- **Gonadotropin-releasing hormone (GnRH) agonists:** These drugs suppress ovarian hormone production and cause amenorrhea (pseudomenopause); they are used to shrink fibroids or the endometrium preoperatively. However, their hypoestrogenic adverse effects (eg, osteoporosis) limit their use to 6 months; they are often used concurrently with low-dose hormone therapy.

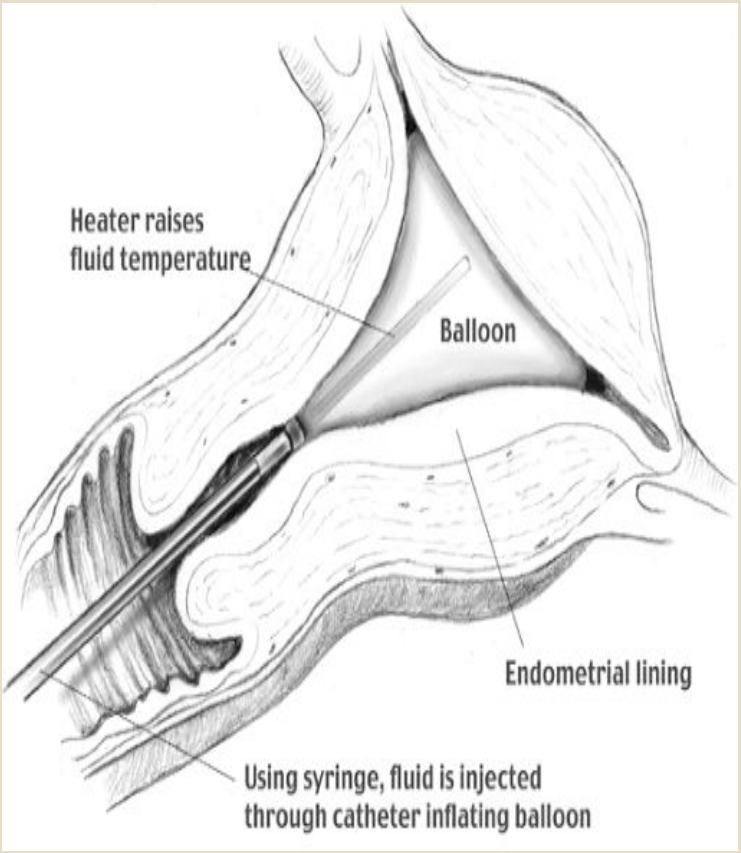
Surgical therapy of AUB:

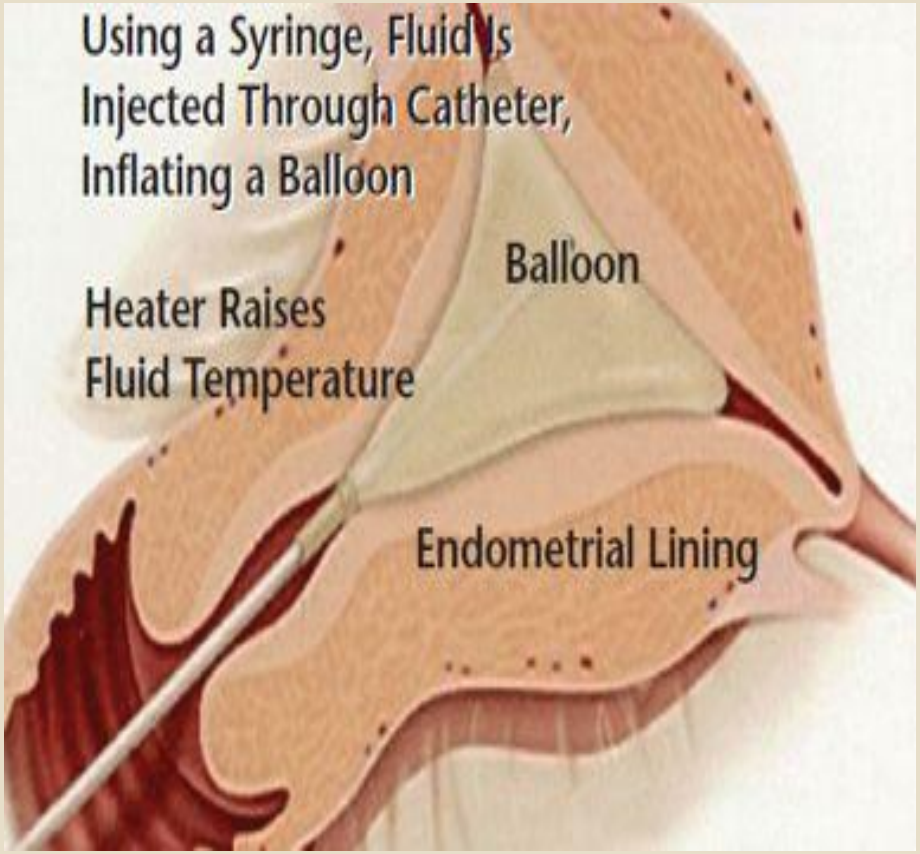
- **Hysteroscopy with D & C(Dilatation & Curettage)** may be therapeutic as well as diagnostic; it may be the treatment of choice when anovulatory bleeding is severe or when hormone therapy is ineffective. Structural causes such as polyps or fibroids may be identified or removed during hysteroscopy.
- **Endometrial ablation** (eg, laser, rollerball, resectoscopic, thermal, or freezing) may help control bleeding in 60 to 80%. Ablation is less invasive than hysterectomy, and the recovery time is shorter, **indicated if pt. older than 35y.,if asso.with sub mucous fibriod,ut size <10wk , no endometriosis or adenomyosis, usually done in proliferative phase of cycle**.

Hysteroscopy with D & C



Endometrial ablation





- **Hysterectomy**, abdominal or vaginal, may be recommended for patients who decline hormone therapy or who, despite other treatments, have symptomatic anemia or poor quality of life caused by persistent, irregular bleeding.

Thank you