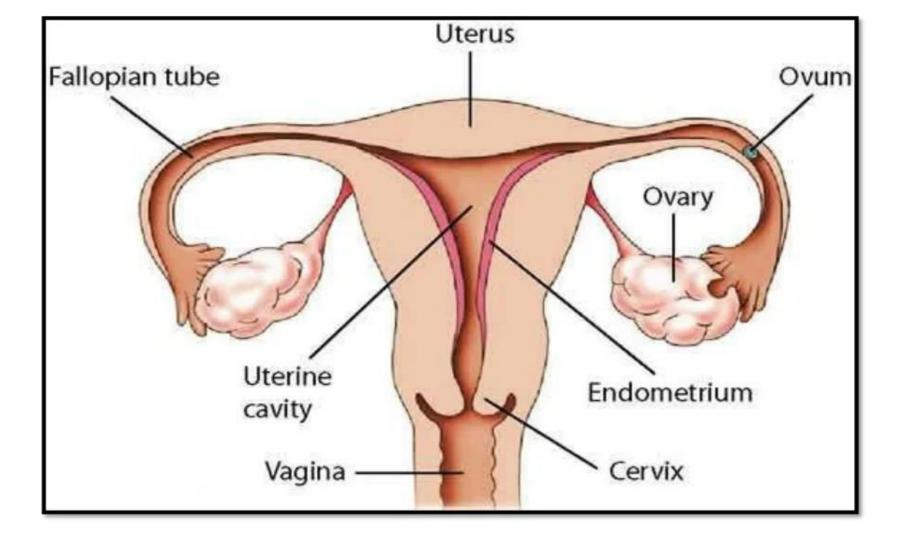
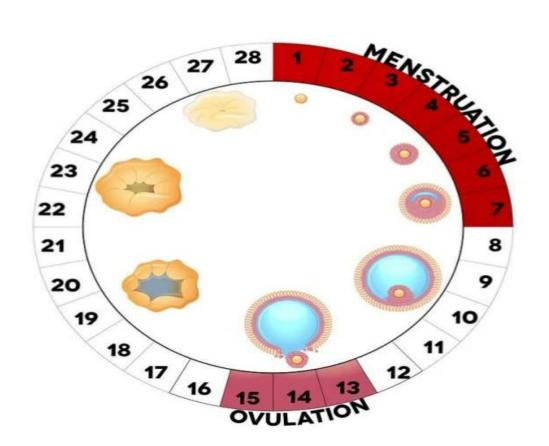


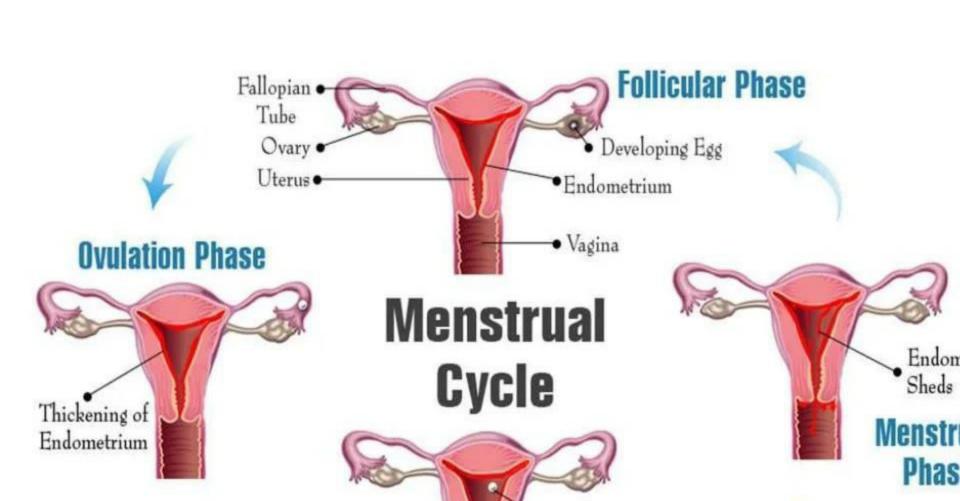
## **Objectives**

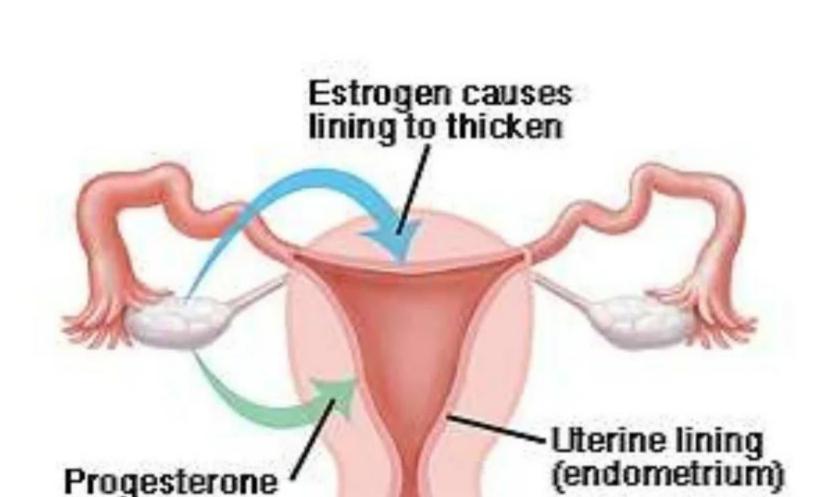
- What defines abnormal menstruation?
- Burden of disease
- Differential diagnosis of abnormal menstruation patterns
- Classification of abnormal menstruation
- Evaluation



### MENSTRUAL CYCLE FOLLICULAR DEVELOPMENT





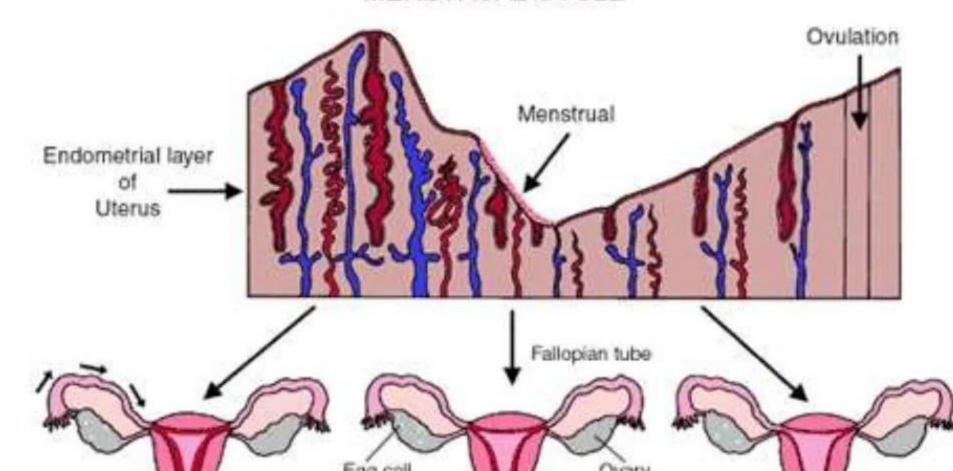


## **MENSTRUATION**

- Shedding the uterine lining

   (endometrium) if pregnancy does not occur.
- Necessary (in the absence of hormona

#### MENSTRUAL CYCLE



# Characteristics of normal menstruation

- 1-Menarche: 10-16 years. average 13 years.
- 2-Duration: 2-7 days (<2days is hypomenorrhea and</li>
   >7 days is menorrhagia)
- 2-Amount: 20-80 ml uses 2 nankins per day >8

# MENSTRUATION PROBLEM??



# FACTS & STATISTICS

Around 30 % of women have irregular periods during their childbearing years.



# Evaluation of Abnormal Menstruation Step 1: History

- Detailed menstrual history
  - Inter-menstrual intervals

Mormal (3-7 days)

- →Consistent, normal (q 24-35 days)
  - →Variable
- · Character, volume
- Duration

# Abnormal uterine bleeding refers to uterine bleeding outside of the parameters noted below:

Duration greater than eight days
 Flow greater than 80 mL/cycle or subjective

impression of heavier-than-normal flow (ie, more than six full pads or tampons per day)

Occur more frequently than every 24 days or



The causes of **Per Vaginal Bleeding** (outside of pregnancy) **Bleeding unrelated** Causes associated to menstruation with heavy periods. Drugs eg progesterone-only oral contraceptive pill Hypothyroidism (A rare cause) Pelvic Inflammatory Intra-Fibroids Disease - Infection! uterine Coil **Endometrial Hyperplasia Endometrial Polyps** (Also cause post-menopausal bleeding) Cervical Cancer, Polyps & Erosions Dysfunctional Post-menopausal Uterine Bleeding Atrophic Vaginitis (Diagnosis of exclusion.) (Associated with decreased Affects middle aged women oestrogen levels) causing peri-menopausal menorrhagia)

# Etiology of Abnormal Uterine Bleeding

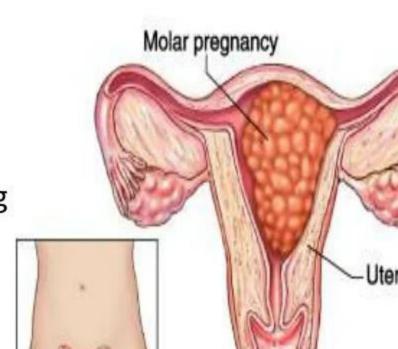
### **PALM**: Structural Causes

- Polyp
- Adenomyosis
- Leiomyoma

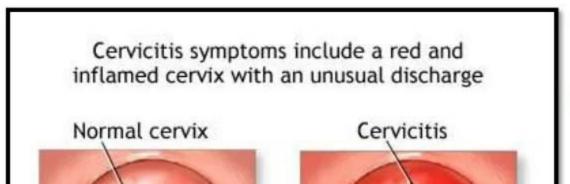
#### **COEIN: Non Structural**

- Coagulopathy
- Ovulatory dysfuntion
- Endometrial

- Pregnancy—cessation of menstrual bleeding for 40 weeks
  - 1 in 5 pregnancies end in spontaneous abortion
  - First symptom is usually bleeding
- Gestational trophoblastic disease (molar pregnancy)
  - Non-viable pregnancy with a



- Infection
  - Cervicitis—leads to bleeding from the cervix
  - Endometritis—leads to sloughing off of endometrial blood and mucous





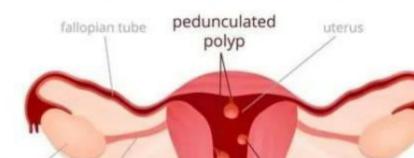
- Endocervical or endometrial polyps
  - Especially post-coital bleeding

#### Cervical polyps



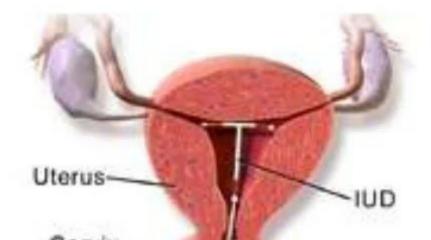


# (endometrial Polyps)



#### IUD

Bleeding likely with Paragard, extremely rare with Mirena (progestin-containing)



- Leiomyoma (fibroids)
  - Subserosal (in wall of myometrium)
  - Intramural (most common "bump on







# TYPES

# Types of uterine bleeding disorders

- Amenorrhea: (absence of menstruation)
- Hypomenorrhea: (scanty menstruation)
- Oligomenorrhea: (infrequent menstruation, periods more than 35 days apart),
   Menorrhagia: (excessive menstruation),
- Metrorrhagia: (bleeding between periods).
- Menometrorrhagia: (is heavy bleeding during



## **AMENORRHEA**

- No menstrual period for more than 6 months
- Possible causes:
- Congenital uterine absence
- Hormonal disturbances from the hypothalamus and pituitary gland
- Failure of the ovary to receive or maintain egg

## Primary amenorrhea causes are:

- Extreme weight gain
- ➤ Congenial abnormalities of the reproductive
- system
- ➤ Stress
- Excessive exercise
- > Eating disorders
- ➤ Polycystic ovarian syndrome
- > Hypothyroidism
- ➤Turner Syndrome

Character till a service

>Imperforated Hymen

## Secondary amenorrhea causes are:

- ➤ Breast feeding
- >Emotional stress
- **►** Malnutrition
- Pituitary, ovarian, or adrenal tumours
- **▶** Depression
- ▶Pregnancy
- >Hyper thyroid or hypothermia
- ➤ Hyper prolactinemia
- Rapid weight gain or loss
- > Chemotherapy or radiotherapy
- Vigorous excrete



## Hypomenorrhea (cryptomenorrhea)

- Defined as unusually light menstrual flow sometimes only spotting
- Possible causes include: hymenal or cervical stenosis, uterine synechiae (Asherman's syndrome), occasionally oral contraceptives

## Causes for Hypomenorrhea

- Asherman's syndrome
- Uterine
- Nervous and emotional
- Low body fat
- Usage of contraceptives
- Anemia





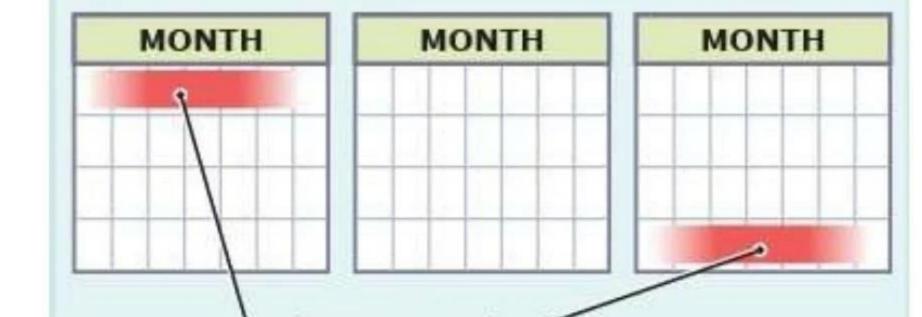
Side view



## Oligomenorrhea

- Describes menstrual periods that occur more than 35 days apart
- Possible causes: anovulation which may be from endocrine causes (pregnancy, menopause, pituitary and hypothalamic disorders); or systemic causes (excessive weight loss);

### Oligomenorrhea





## Menorrhagia (Hypermenorrhea)

Definition:

Heavy (>80 ml) or prolonged (>7 days) uterine bleeding

excessive volume and durations of flow regular, normal intervals

#### Hypothyroidism **ETIOLOGY** Coagulopathy Systemic Diabetes Obesity Polyps Carcinoma Menorrhagia Local Fibroids

Adenomyosis

#### TABLE 2. latrogenic causes of menorrhagia

Medication class	Examples
Anticoagulants	Aspirin, warfarin, heparin, fish oil

Steroid hormones Medroxyprogesterone and other progestins (when stopped), prednisone

Paclitaxel, platinol, docetaxel

Chemotherapy agents

### Signs and symptoms

#### **Symptoms**

 Change, increased menstrual blood loss

Flooding

Blood clots

#### Signs

Conjunctival pallor

koilonychia



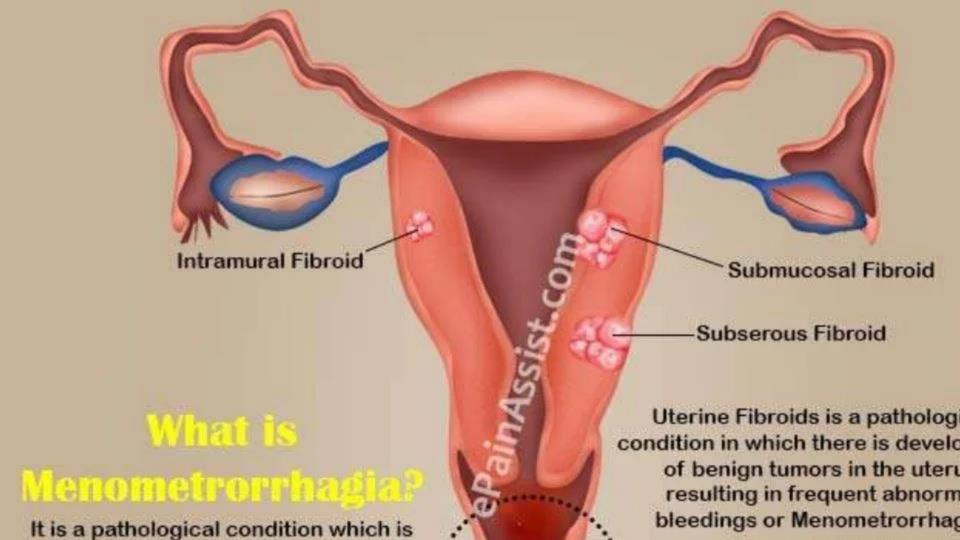
#### Metrorrhagia (intermenstrual bleeding)

- Defined as bleeding occurring any time between the menstrual periods
- Possible causes include: endometrial polyps,
   CA cervix, CA endometrium, exogenous estrogen administration



#### Menometrorhagia

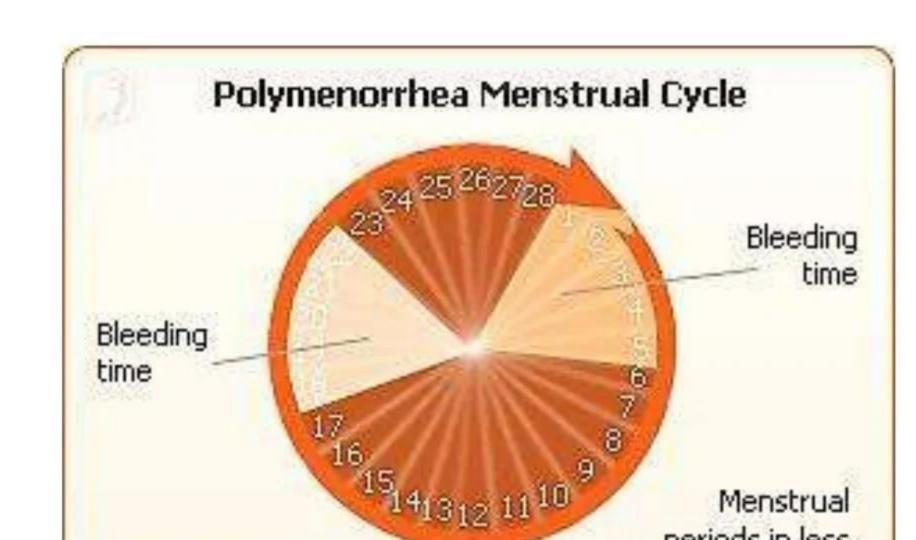
- This is bleeding that occurs at irregular intervals and varies in amount and duration of bleeding
- Caused by any condition that can lead to intermenstrual bleeding





#### Polymenorrhea

- Describes periods that occur too frequently
- Usually associated with anovulation and rarely with a shortened luteal phase in the menstrual cycle

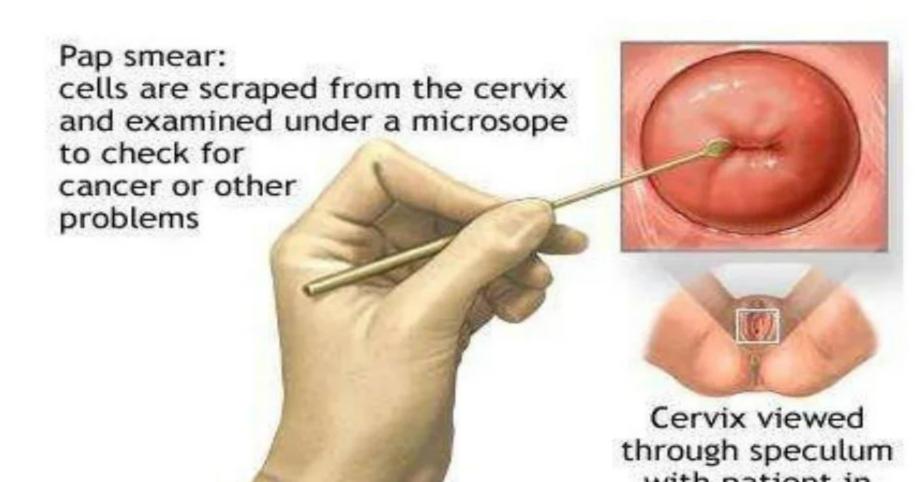


# DIAGNOSTIC



#### Diagnosis in abnormal uterine bleeding

- History and physical examination
- Cytological examination –include biopsy and histology
- Pelvic ultrasound scan
- Endometrial biopsy
- Hysteroscopy
- Dilatation and curettage
- Hormonal profile



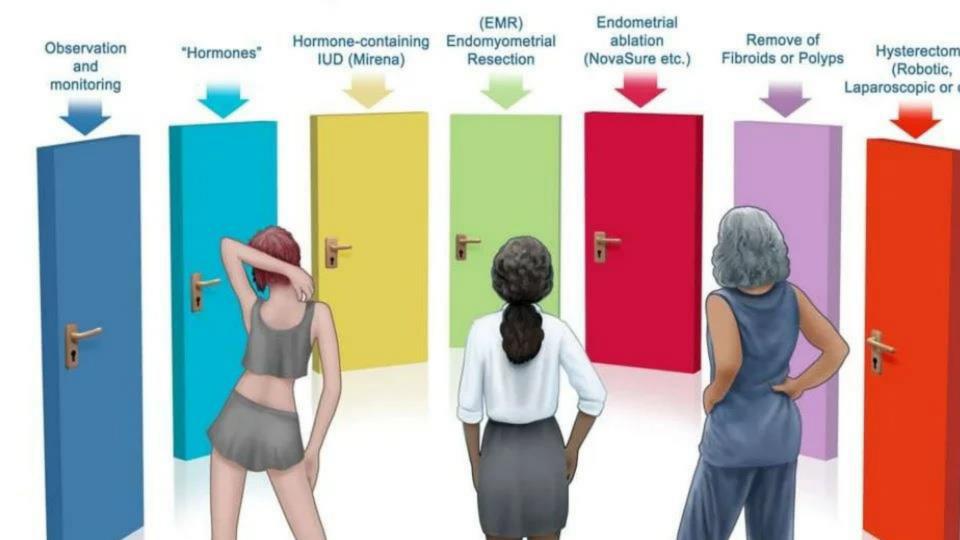


# Management of Abnormal Uterine Bleeding Principles

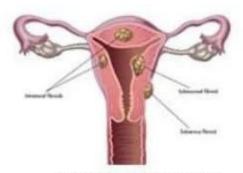
➤ Treat cause appropriately

#### May include:

- Hormonal preparations
- Surgery
- Endometrial ablation and endometrial



# SUMMARY



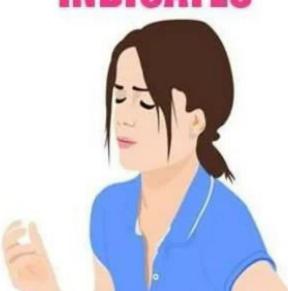
EXCESSIVE OR PROLONGED BLEEDING MAY INDICATE FIBROIDS



IRREGULAR PERIODS MAY INDICATE PCOS



PERIOD INDICATES











Definition	Interval	Frequency	Amount	Others	
Polymenorrhea	Regular	Increase	Normal	<21 days	
Menorrhagia	Regular	Normal	Excessive	>7 days >80 ml	
Oligomenorrhea	Regular	Decrease	Normal	> 35 days	
Metrorrhagia	IRregular	Normal	Normal		
Menometrorrhagia	IRregular	Normal	Excessive	Combination	



#