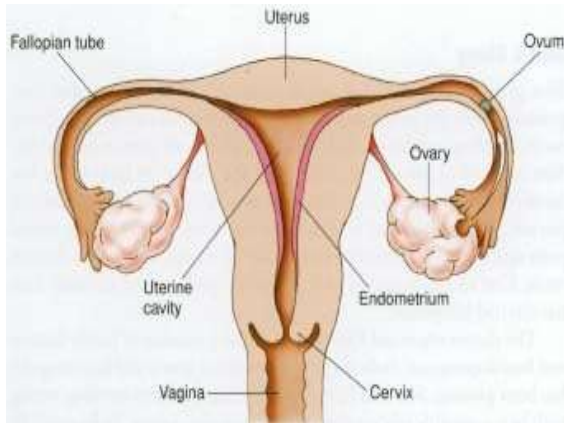
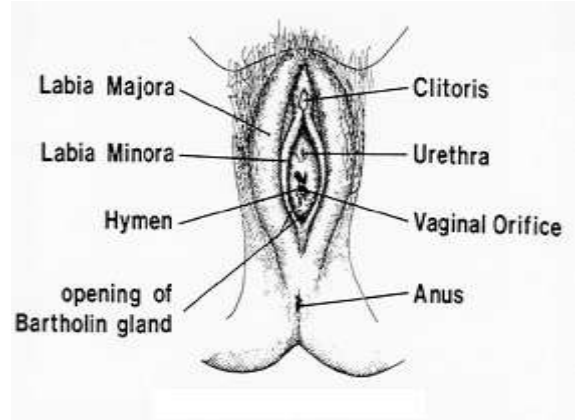


Abnormal Structures of the woman reproductive system

Benign structures of the woman reproductive system

Functional disorders of the woman reproductive system

Lector: MD Ganna Pola



Development of external genitalia

- Early, similar in both sexes
- 6 th wk, left and right genital swelling meet anteriorly to form the genital tubercle
- 12 th wk identify difference
- Genital swelling , labioscrotal folds, scrotum or labia major
- Genital tubercle, penis or clitoris

Ambiguous genitalia

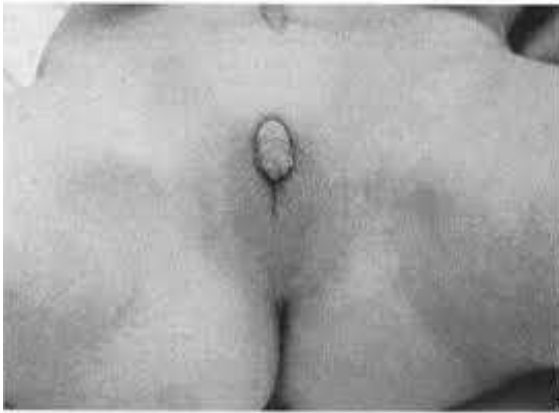


Ambiguous genitalia

Ambiguous genitalia appear as a large clitoris or as a small penis.

Fertility is variable

Sometimes it s calling like pseudohermaphroditism and hermaphroditism



Labial fusion or Labial adhesion



Labial fusion

Labial fusion is a medical condition of the female genital anatomy where the labia minora become fused together

Labial fusion is never present at birth, but rather acquired later in infancy, since it is caused by insufficient estrogen exposure and newborns have been exposed to maternal estrogen *in utero*. It typically presents in infants at least 3 months old. Most presentations are asymptomatic and are discovered by a parent or during routine medical examination. In other cases, patients may present with associated symptoms of dysuria, urinary frequency, refusal to urinate, or post-void dribbling

Anatomic anomalies of hymen



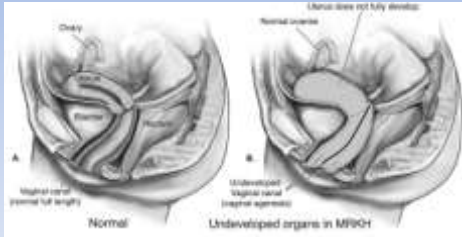
Anatomic anomalies of hymen

- Imperforate hymenal opening nonexistent; will require minor surgery if it has not corrected itself by puberty to allow menstrual fluids to escape.
- Cribriform, or microperforate: sometimes confused for imperforate, the hymenal opening appears to be nonexistent, but has, under close examination, small perforations.
- Septate: the hymenal opening has one or more bands of tissue extending across the opening

Imperforate Hymen



Vaginal Atresia



Vaginal Atresia

Vaginal atresia is a condition in which the vagina is abnormally closed or absent. The main causes can either be complete vaginal hypoplasia, or a vaginal obstruction, often caused by an imperforate hymen or, less commonly, a transverse vaginal septum

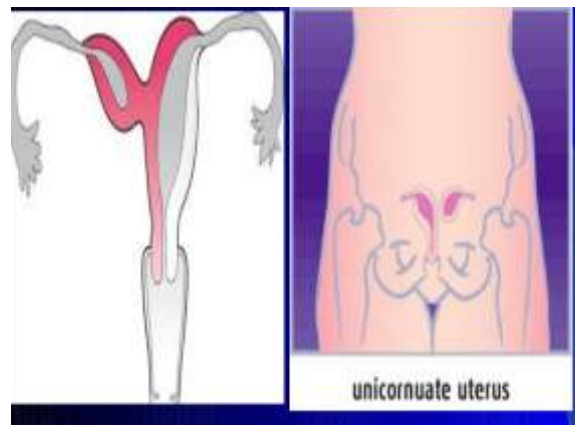
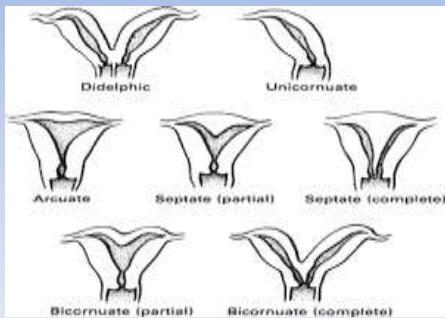
Uterine Anomalies

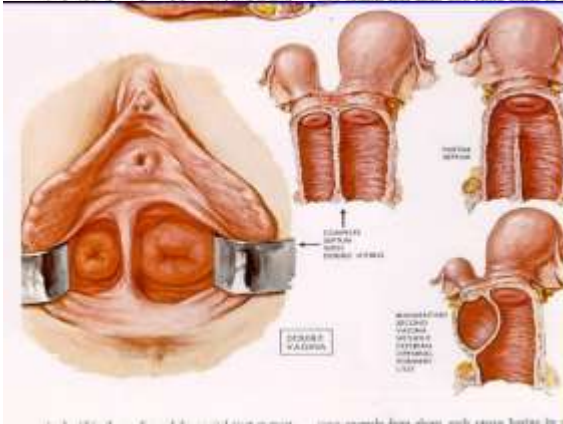
- Absence of Uterus
- Fusion anomalies

Uterine Anomalies

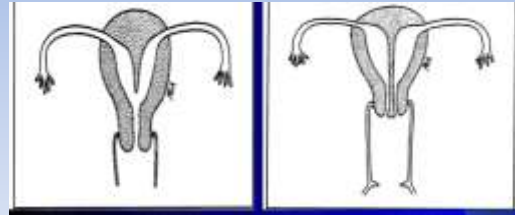
- Agnesis of uterus\ vagina
- Unilateral development: unicornate uterus
- Defect in vertical fusion
- Lateral fusion defect

Shape of the uterus





Septate Uterus: Partial and Complete



Bicornuate Uterus

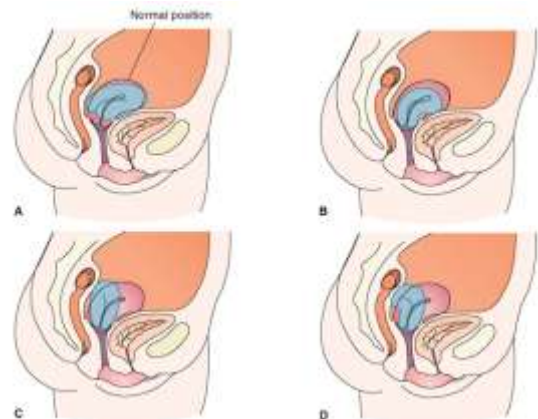


Uterine Agenesis

Uterine agenesis is the extreme of Mullerian duct anomalies, where there is complete absence of uterine tissue above the vagina. Clinical presentation is characterised by primary amenorrhoea, with normal hormonal levels guaranteed by fully functional gonads

Positions of the uterus

- Anteversion – fundus is tipped forward
- Retroversion – fundus is tipped back
- Anteflexion – body of the uterus bend sharply forward
- Retroflexion - body of the uterus bend sharply back

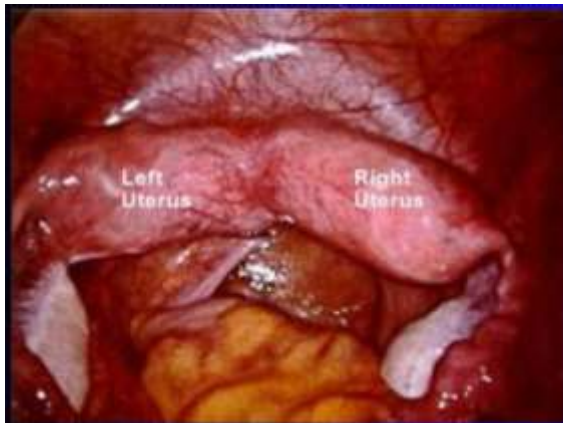


Müllerian agenesis



Müllerian agenesis

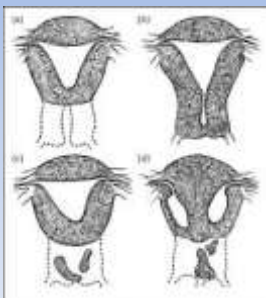
Is a congenital malformation characterized by a failure of the Müllerian duct to develop, resulting in a missing uterus and variable degrees of vaginal hypoplasia of its upper portion. Müllerian agenesis (including absence of the uterus, cervix and/or vagina) is the etiology in 15% of cases of primary amenorrhoea



Müllerian agenesis

An individual with this condition is hormonally normal; that is, they will enter puberty with development of secondary sexual characteristics including thelarche and adrenarche (pubic hair). Their chromosome constellation will be 46,XX. Ovaries are intact and ovulation usually occurs. Typically, the vagina is shortened and intercourse may, in some cases, be difficult and painful. Medical examination supported by gynecologic ultrasonography demonstrates a complete or partial absence of the cervix, uterus, and vagina. People with this condition when, during puberty years, the menstrual cycle does not start (primary amenorrhoea)

Cervical agenesis



Cervical agenesis

Cervical agenesis is a congenital disorder of the female genital system that manifests itself in the absence of a cervix, the connecting structure between the uterus and vagina. Milder forms of the condition, in which the cervix is present but deformed and nonfunctional, are known as cervical atresia or cervical dysgenesis

Epispadias

Epispadias is much more rare in girls. Those who are affected have pubic bones that are separated to varying degrees. This causes the clitoris not to fuse during development, resulting in two halves of the clitoris. Furthermore, the bladder neck is almost always affected. As a consequence, girls with epispadias invariably leak urine with stress (e.g., coughing and strenuous effort). Fortunately, in most cases, early surgical treatment can resolve these problems



Hypospadias

Hypospadias is a congenital defect, primarily of males, in which the urethra opens on the underside of the penis. In a female, it is normally located between the clitoris and the vagina.

Female hypospadias may be associated with abnormalities of the genital tract, since the urinary and genital tracts are formed in the same embryonic process

Ovarian follicle atresia



Ovarian follicle abnormalities

- Agenesis or complete absence
- Gonadal dysgenesis “streak gonads” as in Turner syndrome
- Failure of descent into the pelvis
- Ovotestis “true hermaphrodite” in which combined ovarian and testicular tissues seen

Imperforate anus - birth defects in which the rectum is malformed



Imperforate anus

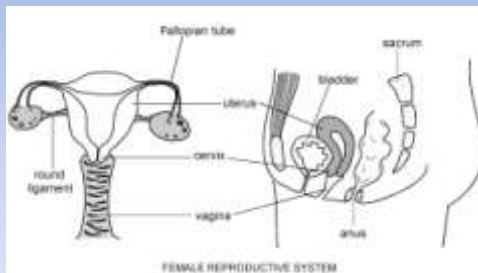
- A low lesion, in which the colon remains close to the skin. In this case, there may be a stenosis (narrowing) of the anus, or the anus may be missing altogether, with the rectum ending in a blind pouch.
- A high lesion, in which the colon is higher up in the pelvis and there is a fistula connecting the rectum and the bladder, urethra or the vagina.
- A persistent cloaca (from the term cloaca, an analogous orifice in reptiles and amphibians), in which the rectum, vagina and urinary tract are joined into a single channel

Imperforate anus

Imperforate anus is usually not present along with other birth defects:

- Problems with a spina
- heart problems
- tracheoesophageal fistula
- esophageal atresia
- renal anomalies
- limb anomalies are among the possibilities

Benign structures of the woman reproductive system



Benign structures of the woman reproductive system

- Cervical and endometrial polyps
- Fibroids
- Endometriosis
- Ovarian cysts
- Benign ovarian tumors

Cervical and endometrial polyps



Cervical and endometrial polyps

A polyp is an abnormal growth of tissue projecting from a mucous membrane

A cervical polyp is a common benign polyp or tumour on the surface of the cervical canal. About 1% of cervical polyps will show neoplastic change which may lead to cancer. The cause of cervical polyps is not entirely understood. They may result from infection. They can also result from long-term (chronic) inflammation, an abnormal response to an increase in estrogen levels, or congestion of blood vessels in the cervical canal



Cervical polyps
As viewed through a speculum

Symptoms of the cervical polyps

- Bleeding between menstrual periods
- Bleeding after menopause
- Bleeding after sexual intercourse
- Bleeding after douching

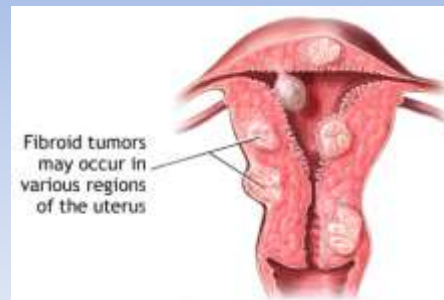
Cervical polyps may be inflamed and rarely can become infected, causing vaginal discharge of yellow or white mucus. Polyps often occur without symptoms.

Cervical and endometrial polyps

Cervical polyps can be removed using ring forceps. They can also be removed by tying surgical string around the polyp and cutting it off. The remaining base of the polyp can then be removed using a laser or by cauterisation. If the polyp is infected, an antibiotic may be prescribed

All polyps after removing should be histological testing

Fibroids of the uterus



Fibroids of the uterus (fibromyomas, leiomyomas)

Fibroids are non-cancerous growths that develop in or around the womb (uterus)

The growths are made up of muscle and fibrous tissue and vary in size

Group of risk for fibrosis

- Women older than 30
- Women who have had children are less likely to get fibroids
- Women whose menarche was before age 10 are more likely to have uterine fibroids
- Women taking birth control pills are less likely to develop significant uterine fibroids
- Women whose mothers and sisters have uterine fibroids are more likely to have them

Types of Uterine Fibroids

- Myometrial (intramural) fibroids are in the muscular wall of the uterus.
- Submucosal fibroids grow just under the interior surface of the uterus, and may protrude into the uterus.
- Subserosal fibroids grow on the outside wall of the uterus.
- Pedunculated fibroids usually grow outside of the uterus, attached to the uterus by a base or stalk.

The symptoms of uterus fibrosis

- Prolonged menstrual periods (7 days or longer)
 - Heavy bleeding during periods
 - Bloating or fullness in the belly or pelvis
 - Pain in the lower belly or pelvis
 - Constipation
 - Pain with intercourse
- The most part of women can don t have any symptoms

How we can discovered fibrosis?



Diagnostic of the Fibrosis of the uterus

- Ultrasound
- MRI
- Hysterosalpingogram
- Uterine biopsy
- Sonohysterogram
- Hysteroscopy

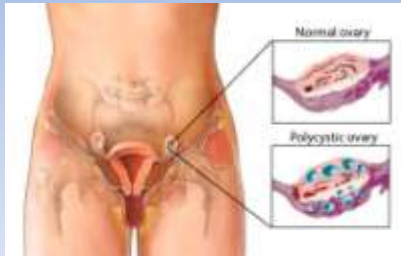
Treatment of the fibrosis of the uterus

- Non surgical – watchful waiting, Oral contraceptives, IUD
- Surgical – myomectomy, hysterectomy

Endometriosis



Polycystic ovarian syndrome

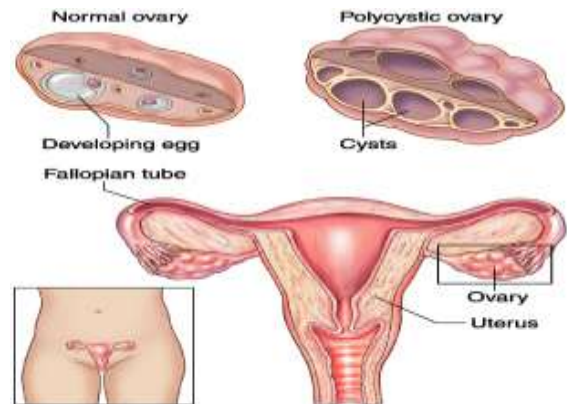


Polycystic ovarian syndrome

Polycystic ovarian syndrome, or PCOS, is a condition in which a woman's levels of the sex hormones estrogen and progesterone are out of balance. This leads to the growth of ovarian cysts (benign masses on the ovaries). PCOS can cause problems with a woman's menstrual cycle, fertility, cardiac function, and appearance.

Polycystic ovarian syndrome

According to the U.S. Department of Health and Human Services, between 1 in 10 and 1 in 20 women of childbearing age suffers from PCOS. The condition currently affects up to 5 million women in the United States



Symptoms of the polycystic ovarian syndrome

- Infertility (not ovulating). In fact, PCOS is the most common cause of female infertility
- Infrequent, absent, and/or irregular menstrual periods
- Hirsutism (HER-suh-tiz-um) — increased hair growth on the face, chest, stomach, back, thumbs, or toes
- Cysts on the ovaries
- Acne, oily skin or dandruff

Symptoms of the polycystic ovarian syndrome

- Weight gain or obesity, usually with extra weight around the waist
- Male-pattern baldness or thinning hair
- Patches of skin on the neck, arms, breasts, or thighs that are thick and dark brown or black
- Pelvic pain
- Anxiety or depression
- Sleep apnea — when breathing stops for short periods of time

Nursing investigations

- Medical and Family history
- Physical examination
- Pelvic examination
- Blood tests
- Vaginal ultrasonography

Symptoms of the polycystic ovarian syndrome

- Menstrual disorders (oligomenorrhea – few menstrual periods) or amenorrhea
- Infertility (lack of ovulation)
- High levels of masculinizing hormones (hirsutism)
- Metabolic syndrome (central obesity)

Diagnostic of the polycystic ovarian syndrome

- Ultrasonography
- Laparoscopic
- Serum blood level of androgens

Treatment of the polycystic ovarian syndrome

- Lifestyle changes, medications and surgery
- Restoration of fertility
- Treatment of hirsutism or acne
- Restoration of regular menstruation, and prevention of endometrial hyperplasia and endometrial cancer

Polycystic ovarian syndrome

Frank diabetes can be seen in 65–68% of women with this condition. Insulin resistance can be observed in both normal weight and overweight people, although it is more common in the latter (and in those matching the stricter NIH criteria for diagnosis); 50–80% of people with PCOS may have insulin resistance at some level.

One of the main goal of treatment of this pathology - lowering of insulin resistance levels

Benign ovarian tumors



Benign Ovarian Tumors

- Benign epithelial neoplastic cysts (60% of benign ovarian tumours)
- Benign neoplastic cystic tumours of germ cell origin
- Benign neoplastic solid tumours

Benign epithelial neoplastic cysts (60% of benign ovarian tumours)

- Serous cystadenoma:
 - Develop papillary growths which may be so prolific that the cyst appears solid.
 - They are most common in women aged between 40-50 years.
 - About 15-25% are bilateral and about 20-25% are malignant.
- Mucinous cystadenoma:
 - The most common large ovarian tumours which may become enormous.
 - They are filled with mucinous material and rupture may cause pseudomyxoma peritonei. They may be multilocular.
 - They are most common in the 20-40 age group. About 5-10% are bilateral and around 5% will be malignant.

Benign epithelial neoplastic cysts (60% of benign ovarian tumours)

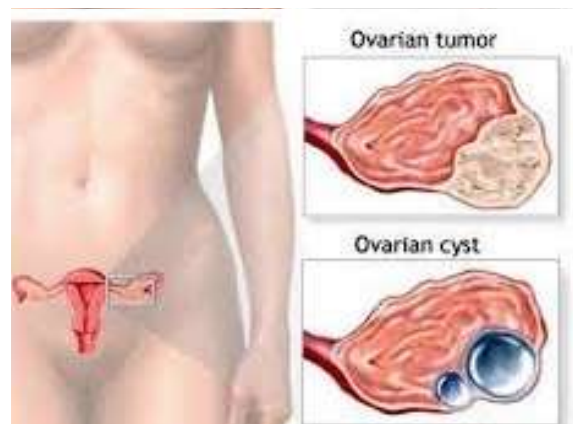
Surface epithelial-stromal tumors are a class of ovarian neoplasms that may be benign or malignant. Neoplasms in this group are thought to be derived from the ovarian surface epithelium (modified peritoneum) or from ectopic endometrial or Fallopian tube(tubal) tissue. Tumors of this type are also called ovarian adenocarcinoma. This group of tumors accounts for 90% to 95% of all cases of ovarian cancer

Benign neoplastic cystic tumours of germ cell origin

- Benign cystic teratoma; rarely malignant
- They arise from primitive germ cells
- A benign mature teratoma (dermoid cyst) may contain well-differentiated tissue - eg, hair, and teeth.
- 20% are bilateral
- They are most common in young women
- Poorly differentiated, malignant teratomas are rare

Benign neoplastic solid tumours

- Fibroma (less than 1% are malignant); small, solid benign fibrous tissue tumours. They are associated with Meigs' syndrome and ascites.
- Thecoma (less than 1% are malignant).
- Adenofibroma
- Brenner's tumour (rare ovarian tumours displaying benign, borderline or proliferative, and malignant variants, over 95% are benign and more than 90% are unilateral, they may be associated with mucinous cystadenoma and cystic teratoma)



Symptoms of the Benign ovarian tumors

- Asymptomatic - chance finding (eg, on bimanual examination or ultrasound).
- Dull ache or pain in the lower abdomen, low back pain.
- Torsion or rupture may lead to severe abdominal pain and fever.
- Dyspareunia.
- Swollen abdomen, with palpable mass arising out of the pelvis, which is dull to percussion and does not disappear if the bladder is emptied.
- Pressure effects - eg, on the bladder, causing urinary frequency, or on venous return, causing varicose veins and leg oedema.
- Torsion, infarction or haemorrhage

Diagnostic of the Benign ovarian tumors

- Ultrasonography
- CT or MRI
- Diagnostic laparoscopy
- Fine-needle aspiration and cytology
- Cancer antigen 125

Lactate dehydrogenase (LDH), alpha-fetoprotein (AFP) and human chorionic gonadotrophin (hCG) should be measured in all women under the age of 40 with a complex ovarian mass because of the possibility of germ cell tumours

Treatment of the Benign ovarian tumors

Laparoscopic surgery for benign ovarian tumours is usually preferable to open surgery

Functional disorders of the woman reproductive system



Irregular menstruation

- Physiological (Just after puberty and just before menopause, bad nutrition, stress, excessive exercise, genetic factors)
- Pathologic (disease of the reproductive system organs)

Irregular menstruation

The most common pathological reasons of irregular menstruation - Polycystic ovary syndrome and endometriosis

What is oligomenorrhea?



Oligomenorrhea

Oligomenorrhea is infrequent menstruation – menstrual period occurring at intervals of greater than 35 days with only 4 to 9 periods in a year.

It can be normal in perimenopause and a breast feeding period or it can be like a symptom of pathological diseases such as – polycystic ovary syndrome, anorexia, Prader – Willi syndrome and Graves disease

What is amenorrhea?



Amenorrhea

The absence of menstruation for at least 3 months in women who would otherwise be having periods

- Occurs between puberty and the menopause
- In some cases, due to a chromosomal abnormality
- Stress, excessive exercise, and being underweight are all risk factors

Amenorrhea

- Primary (in puberty if the girl did not have menarche till 16 years)
- Secondary (stopping the menstruation more than 3 months)

Sometimes secondary amenorrhea is physiological - during pregnancy and first months after delivery

Secondary amenorrhea is also taking place in the woman with polycystic ovary syndrome and that one who is taking a course of radio and chemotherapy

What is Menorrhagia?



Menorrhagia

Menorrhagia is a menstrual bleeding that is heavier than normal

- More common over the age of 40
- Being overweight is a risk factor
- Genetics is not a significant factor

Menorrhagia

Heavy or prolonged menstrual bleeding can be symptom of disorders of the uterus – fibroids, uterine polyps, endometriosis, cancer of uterus, persistent pelvic infections

A single heavy period that is late may be a miscarriage

What is algomenorrhea?



What is dysmenorrhea?



Dysmenorrhea

Dysmenorrhea - lower abdominal pain and discomfort experienced just before or during menstruation

- Primary – no obvious cause
- Secondary – like a result of a disorder of the reproductive organs (endometriosis, fibrosis, PID)

As usually the primary pain became less till the age of 25 and disappearing by the age of 30, and became less severe after childbirth

What is Virilizations?



Virilization

Development of male characteristics in a female due to a hormonal imbalance

- May be present at birth but usually develops later in life
- In some cases, the cause is inherited
- Lifestyle is not a significant factor

Normally, low levels of male sex hormones are present in females and are produced by the adrenal glands and the ovaries. However, if the production of these hormones increases significantly, various male characteristics begin to develop, a condition called virilization



When virilization develops later in life, the possible causes include abnormalities of the ovaries, such as certain types of ovarian cysts, cancer of the ovary, and polycystic ovary syndrome. Hormone levels can also be increased by adrenal tumours and the use of certain male hormone supplements by athletes



Symptoms of the virilization

- Excessive growth of hair on the face and body
- Less regular or absent menstruation
- Reduction in breast size or in rare cases failure of the breasts to develop
- Enlargement of the clitoris
- Irreversible enlargement of the larynx (Adam's apple), causing the voice to become deeper.
- Thinning of the hair around the temples and crown



Thank For Your Attention

