COMMON
GYNAECOLOGICAL
PROBLEMS
Internal Genital Organs
Female

- A pair of Ovaries
  - the primary reproductive organs

- A pair of Fallopian Tubes
  - uterine tubes

- The Uterus
  - body & cervix

- The Vagina
  - receives male sperm
A menstrual cycle consists of two phases:

1. Pre-ovulatory phase lasting 2 weeks, during which the maturation of an egg follicle occurs.

2. Post-ovulatory phase which follows the release of ovum and lasts 14 days.
Ovulation - This is the process by which the mature oocyte is released from the primordial follicle.
Menstrual disorders

Pathology    Functional

(a) Amenorrhea
Hypothalamus, pituitary, thyroid, adrenal, ovarian disorders, congenital anomalies, chromosomes.

(b) Dysfunctional uterine bleeding (DUB)
Imbalance in cyclic sex hormone production.

TT       Estrogen + Progesterone
Hysterectomy psychosis

Emotional
Environmental
MENSTRUAL DISORDERS

Dysmenorrhea

1. Painful menstruation.
2. Release of prostaglandin
3. Primary dysmenorrhea or spasmodic or functional

Treatment:
1. Analgesics, antiprostaglandins
2. Anovulatory cycles are known to have painless menstruation
3. Hormonal therapy is unsafe to use for long term therapy.
MENSTRUAL CRAMPS
(DYSMENORRHEA)
(Painful menstruation)
(DYSENORRHEA)

- Menstrual cramps.
- Dull, throbbing, annoying pain in the lower abdomen
- Pain radiates to the lower back and thighs
- Severe pain.

Uncommon signs and symptoms:
- Nausea and vomiting
- Loose stools
- Sweating
- Dizziness
- **Primary dysmenorrhea**: involves no physical abnormality and begins within three years after menarche.

- **Secondary**: involves an underlying physical cause,
  1. Endometriosis
  2. Uterine fibroids.
  3. Pelvic inflammatory disease (PID).
  4. Use of an intrauterine device (IUD).

- Cramps disappear after pregnancy.
CAUSES

- To create a nourishing environment for a fertilized egg, the female sex hormone estrogen causes thickening of the uterine lining, every month.

- Soon after, a follicle — a tiny sac in the ovary that contains a single egg (ovum) — ruptures and releases its egg (ovulation).

- If the egg becomes fertilized by contact with a sperm on its way to the uterus, the egg implants in the lining of the uterus.
- Unfertilized egg passes through the uterus and out of the vagina.
- Uterus releases the lining, and menstrual flow begins.
- Uterus contracts, prostaglandins involved in pain and inflammation, trigger the uterine muscle contractions.
- Prostaglandins cause menstrual cramps (primary dysmenorrhea)?
RISK FACTORS

- Early onset of puberty (age 11 or younger)
- A family history of painful periods

SCREENING AND DIAGNOSIS

- Pelvic exam.
- Imaging tests
- Laparoscopy
- Hysteroscopy.

COMPLICATIONS

- Affects reproductive health.
- Ectopic pregnancy.
Dysfunctional Uterine Bleeding (DUB)
1. Abnormal uterine bleeding not due to any organic gynecological disease.
2. Imbalance in cyclical sex hormone production.
3. Irregular menstrual cycles, excessive or prolonged bleeding.

**Treatment:**
1. Both amenorrhea and DUB are treated with cyclical sex hormones i.e., combination of estrogen and progesterone.
2. Hysterectomy as a last resort.
Amenorrhea

(Absence of menstruation)
1. Pathological causes are diseases of hypothalamus, pituitary, thyroid, adrenal glands, ovarian disorders, congenital disorders of genital organs and chromosomal abnormalities.

2. “Anorexia Nervosa” – Typically seen in young, emotionally unstable girls and also in overweight teenagers who go on “crash diet.”

3. Polycystic ovarian disease (POD).
Menorrhagia

(Heavy bleeding)
1. Hormonal imbalance.
2. Fibroids
3. Polyps
4. Endometriosis
5. Neoplasia
6. Blood clotting disorders
PREMENSTRUAL SYNDROME (PMS)
- Mood swings, tender breasts, food cravings, fatigue, irritability, depression, etc.
- An estimated three of every four menstruating women experience some form of premenstrual syndrome.
- PMDD (premenstrual dysphoric disorder) is a severe form of PMS with severe depression, feelings of hopelessness, anger, anxiety, low self-esteem, difficulty in concentrating, irritability and tension.
- Weight gain from fluid retention
- Mood swings and irritability or anger
- Appetite changes and food cravings
- Trouble falling asleep (insomnia)
- Joint or muscle pain
- Abdominal bloating
- Breast tenderness
- Tension or anxiety
- Depressed mood
- Crying spells
- Headache
- Fatigue
Every month an egg usually is released from the ovary during ovulation. It travels down the fallopian tube, where it may be fertilized by a sperm. If fertilized, the egg usually implants in the lining of the uterus. If not, the egg and lining are shed during menstruation.
CAUSES

Exactly what causes PMS is unknown, but several factors may contribute to the condition.

Cyclic changes in hormones seem to be an important cause, because signs and symptoms of PMS change with hormonal fluctuations and also disappear with pregnancy and menopause.

Chemical changes in the brain also may be involved.

Serotonin, (neurotransmitter) is thought to play a crucial role in mood states, especially
- Stress aggravates symptoms.
- Low levels of vitamins and minerals.
- Eating a lot of salty foods, causing fluid retention, alcohol, and caffeinated beverages.
INFERTILITY
- Diminished or absent ability to produce offspring; does not imply (either in the male or the female) the existence of as positive or irreversible a condition as sterility
- Patient and partner have tried for months, perhaps for even more than a year.
- But despite sexual intercourse without birth control, you've been unable to conceive a child.
- If trying to conceive for more than a year, there's a good chance that something may be interfering with efforts to have a child. Infertility, also known as subfertility, is the inability to conceive a child within one year.
- Infertility may be due to a single cause in either patient or partner, or a combination of factors that may prevent a pregnancy from occurring or continuing.
- Infertility differs from sterility.
- Being sterile means unable to conceive a child.
- With sterility, patient or partner has a physical problem that precludes the ability to conceive.
- A diagnosis of infertility simply means that becoming pregnant may be a challenge rather than an impossibility.
The goals of infertility evaluation are twofold: to discover the aetiology and to provide a prognosis for future treatment.

Failure to conceive during two years of adequate opportunity is enough justification for a full investigation of the couple as a unit. Indeed, a clinical examination of both partners is indicated as soon as any couple becomes worried.
SIGN AND SYMPTOMS

- Most men with fertility problems have no signs or symptoms.
- Some men with hormonal problems may note a change in their voice or pattern of hair growth, enlargement of their breasts, or difficulty with sexual function.
- Infertility in women may be signaled by irregular menstrual periods or associated with conditions that cause pain during menstruation or intercourse.
CAUSES

- The human reproductive process is complex.
- To accomplish a pregnancy, the intricate processes of ovulation and fertilization need to work just right.
- For many couples attempting pregnancy, something goes wrong in one or both of these complex processes and causes infertility.
- Because of the intricate series of events required to begin a pregnancy, many factors may cause a delay in starting a family.
- The cause or causes of infertility can involve one or both partners.

- For many couples having problems with fertility, the male partner is either the sole or a contributing cause.

- Problems with female fertility are common as well, but present less often than those in the male partner.

- In both men and women, multiple factors can account for difficulty with fertility.

- Sometimes the problem isn't really one of infertility, but a more general sexual problem such as erectile dysfunction.
Causes of male infertility

- A number of causes exist for male infertility that may result in impaired sperm count or mobility, or impaired ability to fertilize the egg.

- The most common causes of male infertility include abnormal sperm production or function, impaired delivery of sperm, conditions related to a man's general health and lifestyle, and overexposure to certain environmental elements:
For fertilization to occur, sperm produced in the testicles and ejaculated into the vagina must swim up the uterus and into the fallopian tube where one sperm penetrates the egg.
Abnormal sperm production or function. Most cases of male infertility are due to sperm abnormalities, such as:

- Impaired shape and movement of sperm.
- Absent sperm production in testicles.
- Low sperm concentration.
- Varicocele.
- Undescended testicle (cryptorchidism).
- Testosterone deficiency (male hypogonadism).
- Klinefelter's syndrome.
- Infections.

In many instances, no cause for reduced sperm production is found.

When sperm concentration is less than 5 million per milliliter of semen, genetic causes could be involved.

A blood test can reveal whether there are subtle changes in the Y chromosome.
Impaired delivery of sperm. Problems with the delivery of sperm from the penis into the vagina can cause infertility. These may include:

- Sexual issues.
- Retrograde ejaculation.
- Blockage of epididymis or ejaculatory ducts.
- No semen (ejaculate).
- Misplaced urinary opening (hypospadias).
- Anti-sperm antibodies.
- Cystic fibrosis.
A man's general health and lifestyle may affect fertility. Some common causes of infertility related to health and lifestyle include:

- Emotional stress.
- Malnutrition.
- Obesity.
- Cancer and its treatment.
- Alcohol and drugs.
- Other medical conditions. Severe injury/major surgery. Certain diseases like diabetes, thyroid disease, HIV/AIDS, Cushing's syndrome, anemia, heart attack, and liver or kidney failure.
- Age – older than 35.
Environmental exposure. Overexposure to certain environmental elements such as heat, toxins and chemicals can reduce sperm count either directly by affecting testicular function or indirectly by altering the male hormonal system. Specific causes include:

- Pesticides and other chemicals.
- Testicular exposure to overheating.
- Substance abuse.
- Tobacco smoking.
Causes of female infertility

- The most common causes of female infertility include fallopian tube damage or blockage, endometriosis, ovulation disorders, elevated prolactin, polycystic ovary syndrome, early menopause, benign uterine fibroids and pelvic adhesions:
  - Fallopian tube damage or blockage.
  - Endometriosis.
    - Ovarian cysts (endometriomas).
    - Scar tissue.
  - Ovulation disorders.
Every month, hormones signal a woman's ovaries to prepare an egg for ovulation.
Specific causes of hypothalamic-pituitary disorders include:

- Direct injury to the hypothalamus or pituitary gland
- Pituitary tumors
- Excessive exercise
- Anorexia nervosa

- Elevated prolactin (hyperprolactinemia).
- Polycystic ovary syndrome (PCOS).
- Early menopause (premature ovarian failure).
Certain conditions are associated with early menopause, including:

- Autoimmune disease.
- Radiation or chemotherapy for the treatment of cancer.
- Tobacco smoking.
- Benign uterine fibroids.
- Pelvic adhesions.
- Other causes.
- Medications.
- Thyroid problems.
- Cancer and its treatment.
- Other medical conditions – delayed puberty or amenorrhea, such as Cushing's disease, sickle cell disease, HIV/AIDS, kidney disease and diabetes, can affect a woman's fertility.
RISK FACTORS

Many of the risk factors for both male and female infertility are the same. They include:

- Age.
- Tobacco smoking.
- Alcohol.
- Body mass. Extremes in body mass — either too high > 25.0 or too low < 20.0
- Being overweight.
- Being underweight.
SCREENING AND DIAGNOSIS

- **Tests for men** – For a man to be fertile, the testicles must produce enough healthy sperm, and the sperm must be ejaculated effectively into the woman's vagina. Tests for male infertility attempt to determine whether any of these processes are impaired.

- General physical examination.

- Semen analysis.

- Hormone testing.
Tests for women – For a woman to be fertile, the ovaries must release healthy eggs regularly, and her reproductive tract must allow the eggs and sperm to pass into her fallopian tubes for a possible union. Her reproductive organs must be healthy and functional.

- Confirmation of ovulation.
- Hysterosalpingography.
- Laparoscopy.
- Basal body temperature.
- Urinary luteinizing hormone (LH) detector kits.
- Ovarian reserve testing.
Unexplained infertility

- In some infertile couples, no specific cause is found (unexplained infertility).
- Couples receiving the diagnosis of unexplained infertility are more likely to seek multiple health care providers and be influenced by the experiences of family and friends or literature that promises new hope.
- Although infertility is unexplained, the pregnancy rate for these couples is among the highest.
COMPLICATIONS

Complications of being infertile often involve strong emotions and may trigger negative feelings between patient and partner. These may include:

- Depression
- Guilt
- Anger
- Stress
- Disappointment
- Resentment
- Blame
- Fear of losing partner because of infertility
- Diminished confidence and self-esteem
EARLY PREGNANCY LOSS

1. Miscarriage.
2. Ectopic pregnancy
MENOPAUSE
Menopause

The end of female menstruation and fertility.

These changes can begin as early as age 35 or as late as 59.
MENOPAUSE

- Permanent cessation of the menses; termination of the menstrual life.
- Although mother or grandmother may have used "the change" to refer to menopause, it isn't a single event.
- Instead, it's a transition that can start in 30s or 40s and last into 50s or even 60s.
- May begin to experience signs and symptoms of menopause well before periods stop permanently.
- Once haven't had a period for 12 consecutive months, you've reached menopause.
Menopause is a natural biological process, not a medical illness.

Although it's associated with hormonal, physical and psychosocial changes in life, menopause isn't the end of youth or of sexuality.

Several generations ago, few women lived beyond menopause.

Today, may spend as much as half of life after menopause.
Hormone therapy (HT) has been widely used in recent decades to relieve the signs and symptoms of menopause and — doctors thought — to prevent diseases associated with aging.

However, new long-term evidence has demonstrated that HT may actually increase risk of serious health conditions, such as heart disease, breast cancer and stroke.

Estrogen therapy is still a safe, short-term option for some women, but numerous other therapies also are available to help to manage menopausal symptoms and stay healthy during this important phase of life.
SIGNS AND SYMPTOMS

- Every woman experiences menopause differently.
- Even the age at which menopause begins may be unique.
- Some women reach menopause in their 30s or 40s, and some not until their 60s, but menopause most often occurs between the ages of 45 and 55.
- Signs and symptoms also are likely to be very individual.
- May breeze through menopause with few signs and symptoms.
Or may experience a number of physical and emotional changes, including:

- Irregular periods.
- Decreased fertility.
- Vaginal and urinary changes.
- Hot flashes.
- Sleep disturbances and night sweats.
- Changes in appearance.
- Emotional and cognitive changes.
CAUSES

- Menopause begins naturally when ovaries start making less estrogen and progesterone.
- During reproductive years, these hormones regulate monthly cycles of ovulation and menstruation.
- In late 30s, the amount of progesterone body produces diminishes, and the remaining eggs from ovaries are less likely to be fertilized.
- Eventually menstrual periods stop, and can no longer become pregnant.
Because this process takes place over years, menopause is commonly divided into the following two stages:

- Perimenopause.
- Postmenopause.
Menopause is usually a natural process.

But certain surgical or medical treatments can bring on menopause earlier than expected.

These include:

- Hysterectomy.
- Chemotherapy and radiation therapy.
- Premature ovarian failure.
SCREENING AND DIAGNOSIS

- The signs and symptoms of menopause are enough to tell most women they have begun going through the transition.
- If having concerns about irregular periods or hot flashes, talk with doctor.
- In some cases further evaluation may be recommended.
- Under certain circumstances, doctor may check level of FSH and estrogen with a blood test.
As menopause occurs, FSH levels increase and estradiol levels decrease.

Doctor may also recommend a blood test to determine level of thyroid-stimulating hormone, because hypothyroidism can cause symptoms similar to those of menopause.
COMPLICATIONS

- Several chronic medical conditions tend to appear after menopause.
- By becoming aware of the following conditions, can take steps to help reduce the risk:
  - Cardiovascular disease.
  - Osteoporosis.
  - Urinary incontinence.
  - Weight gain.
Utero-vaginal prolapse
Is the downward displacement of the vagina and uterus, which is common and disabling condition. There are three stages of prolapse depending on the degree of descent of the uterus. Grade III is otherwise called procidentia where in the whole uterus lies outside the vaginal introitus.
The vaginal prolapse alone can occur without the descent of uterus. The terms cystocoele or urethrocoele are applied when the upper or lower portion of the anterior vaginal wall descends along with the underlying structure i.e., the bladder or urethra respectively. Similarly, the posterior vaginal wall prolapse is termed rectocoele or enterocoele where in rectum or a loop of intestine can herniate into the prolapse. Uterine prolapse is usually combined with vaginal prolapse where as the latter can occur independently.
Etiology of utero-vaginal prolapse

The recognised causes of weaknesses of supporting tissues are

1. Congenital weakness occurs in small proportion of cases.
2. Effects of pregnancy and parturition.
3. Menopause
4. Obesity and chronic bronchitis and abdominal tumors
Hysteroscopy
Diagnosing and treating problems in the uterus.
Examination of the inside of the uterus.

Two types of hysteroscopy
- Diagnostic hysteroscopy
- Operative hysteroscopy.

What the doctor looks for
- Fibroids.
- Polyps.
- Adhesions or septum.
- Cancer.
Hysterectomy

1. Female reproductive organs.

Problems that hysterectomy can treat

1. Endometriosis.
2. Fibroids.
3. Pelvic relaxation.
Sub-total or partial hysterectomy

Total hysterectomy with salpingo-oophorectomy
ProScan women’s imaging

1. Screening Mammography.
2. Diagnostic mammography
3. Breast ultrasound
4. Breast biopsy
5. Bone densitometry
URINARY INCONTINENCE
INCONTINENCE (URINARY LEAKAGE)

People with stress incontinence may,

1. Leak urine when they cough, sneeze or laugh.
2. Go to the bathroom more frequently in order to avoid accidents.
3. Avoid exercise because they are afraid this will cause leaks.
4. Sleep through the night, but leak upon getting up from bed in the morning.
5. Sometimes be incontinent when they get up from a chair.
People with overflow incontinence may,

1. Get up frequently during the night to urinate.
2. Take a long time to urinate and have a weak, dribbling stream with no force.
3. Urinate small amounts and not feel completely empty afterward.
4. Dribble urine throughout the day.
5. Fell the urge to urinate, but sometimes cannot.
People with urge incontinence may,

1. Wet themselves if they do not get to the bathroom immediately.
2. Get up frequently during the night to urinate.
3. Go the bathroom at least every two hours.
4. Feel they have a weak bladder and that each drink of coffee, cola, or alcohol seems to cause urination our of proportion to the amount they actually drink.
5. Wet the bed at night.

People who have urge incontinence in addition to stress incontinence or overflow incontinence have a combination of these signs and symptoms.
## INCONTINENCE (URINARY LEAKAGE)

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Polycystic Ovarian Syndrome (PCOS)
What is PCOS?

- In each menstrual cycle, follicles grow on the ovaries.
- Eggs develop within those follicles, one of which will reach maturity faster than the others and be released into the fallopian tubes.
- This is "ovulation". The remaining follicles will degenerate.
- In the case of polycystic ovaries, the ovaries are larger than normal, and there are a series of undeveloped follicles that appear in clumps, somewhat like a bunch of grapes.
Polycystic ovaries are not especially troublesome and may not even affects the fertility.

When the cysts cause a hormonal imbalance, a pattern of symptoms may develop.

This pattern of symptoms is called a syndrome.

These symptoms are the difference between suffering from polycystic ovary syndrome and from polycystic ovaries.
- Can have polycystic ovaries without having PCOS.
- Nearly all women with PCOS will have polycystic ovaries.
- Polycystic Ovary Syndrome is the name given to a “metabolic condition” in which a woman will have polycystic ovaries, along with a certain pattern of other symptoms that reflect imbalances in reproductive and other hormones.
• We referred to polycystic ovarian syndrome as a “metabolic" disorder.
• By this we mean that there are numerous factors in basic body processes that have gone awry.
• Because body is a unified whole, a problem or dysfunction in one area causes dysfunction in other areas.
• Polycystic ovarian syndrome is a dysfunction that is related to whole body, not just ovaries.
How Common is PCOS?

- Polycystic ovary syndrome is the most common hormonal disorder occurring in women during their reproductive years.
- It’s thought that 4% to 10% of all women have the disorder.
- Since many women don’t know they have polycystic ovarian syndrome or some aspect of it, the actual number probably exceeds 10%.
- Polycystic ovarian syndrome is one of the leading causes of infertility.
- Symptoms frequently start to show up soon after puberty.
CAUSES

- There is disagreement and uncertainty as to what causes polycystic ovarian disease.

- Polycystic ovaries and polycystic ovary syndrome have been associated with one or more of these factors
  - Genetic predisposition.
  - Insulin resistance or hyperinsulinism (high blood levels of insulin).
  - Obesity.
  - Hyperandrogenism (excessive production of male hormones).
- Abnormality of the hypothalamic-pituitary-gonadal axis (organ/hormonal disorder).
- Environmental chemical pollution (hormonal disruptors)
- Food adulteration (excitatory amino acids, for example)
- Chronic inflammation.
SYMPTOMS

- Presents a complex and baffling array of symptoms, consisting of some combination of the following symptoms that vary with each individual:
  - Multiple ovarian cysts
  - Irregular or absent menses
  - Infertility
  - Acne
  - Obesity or inability to lose weight
  - Excessive body or facial hair (hirsutism)
- Insulin resistance and possibly diabetes
- Thinning of scalp hair
- Velvety, hyperpigmented skin folds (acanthosis nigricans)
- High blood pressure
- Polycystic ovaries that are 2-5 times larger than healthy ovaries.
- Multiple hormone imbalances, commonly including: Androgens (testosterone); Cortisol; Estrogens; FSH; Insulin; LH; progesterone; Prolactin; Thyroid hormones.
The treatment may include hormonal therapy consisting of birth control pills, anti-androgen medications, and other special hormone-regulating drugs.

Because PCOS has an insulin resistance component (too much insulin required to store blood sugar), a drug called metformin is becoming a routine treatment.

Ovarian drilling has been helpful for some women. It is a process where between 4 and 30 tiny holes are made in a cystic ovary.
Newer surgical techniques minimize previous problems of scaring and adhesions, but they remain a risk.

Conventional treatment is generally aimed at controlling symptoms and shifting levels of the various hormones that are involved in the disease.
PCOS Is a Threat to Health, if Left Untreated

- Cardiovascular disease.
- Diabetes
- Pregnancy-associated disorders.
- Cancers.
- Seizure disorders.
THE END