

Obstetric & Gynecology

★ Obstetric:

It deals with pregnancy and prenatal care, diagnosis of pregnant patients at any gestational age, It's very important to know how to do the dating of pregnancy....

❖ Dating of pregnancy (EDC): VERY IMPORTANT

- You add 7 days to the date of last menstrual period,
- and subtract 3 from the months,
- and you add to the year after that

Notes:

- EDC is calculated as **280 days after a certain LMP**.
- **If the date of ovulation is known**, as in assisted reproductive technology (ART), **the EDC can be calculated by adding 266 days**.

Past papers:

Question: If the last menstrual period was on 15/8/2011 then expected day of birth is:

Answer: 22, may 2012

Question: What is the expected date for delivery (in weeks), for a known ovulation date:

Answer: $266/7 = 38$ weeks

Pregnancy has many trimesters, we deal with the patient even before the pregnancy (pre conception), because those patients may have diseases like High blood pressure, diabetes, because they affect the outcome of the pregnancy

A period delayed by more than a few days to a week in a patient who has regular menstrual cycle is suggestive of pregnancy, the classic finding of "**morning sickness**" can begin this early and often continues through **12-16 weeks**.

Pregnancy is divided into 3 trimesters:

1st trimester (last menstrual period – 14 weeks):

Has some diseases that you should look after, like the recurrent of the abortions, miscarriages & screening for congenital anomalies (chromosomal anomalies, like down syndrome)

2nd trimester (14 weeks – 28 weeks):

We screen for 2nd trimester abortions, miscarriages & we screen for congenital abnormalities

3rd trimester (28 – end of pregnancy):

We prepare the patient for delivery and we look after the patient regarding the progress of diabetes (if she's having diabetes), and we measure blood pressure, and prepare for the vaginal delivery or caesarean section

Previa: An infant delivered prior to 24 weeks

Preterm: from 24 – 37 weeks

Term: from 37-42

Postdate or postterm: beyond 42 weeks

Past papers:

Question: Preterm birth occurs:

Answer: before 37 weeks

β -hCG (which is produced by placenta) rises to peak (100,000 mIU/L) **by 10 weeks of gestation**, decrease throughout the second trimester, and then level off at 20,000 to 30,000 mIU/L in the third trimester

A viable pregnancy can be confirmed by Ultrasound, which shows:

- Gestational sac as early as 5 weeks or at a β -hCG of 1,500 to 2,000
- Fetal heart as soon as 6 weeks, or at a β -hCG of 5,000 to 6,000

Gestational age (GA): the age in weeks and days measured from the last menstrual period

Developmental age (DA): the number of weeks and days since fertilization

GA is 2 weeks more than DA

Gravidity: refers to the number of times woman has been pregnant

Parity: refers to the number of pregnancies that led to a birth beyond 20 weeks GA or of an infant weighing more than 500g

Some terms:

Embryo is from the time of fertilization until the pregnancy is 8 weeks along (10 weeks gestational age), After 8 weeks until the time of birth is called **Fetus**.

Infant is the period between delivery and 1 year of age.

Signs and symptoms of pregnancy:

Signs:

- **Chadwick's sign**: Bluish discoloration of vagina and cervix
- **Goodell's sign**: softening and cyanosis of the cervix at or after 4 weeks
- **Ladin's sign**: Softening of the uterus after 6 weeks
- **Breast swelling and tenderness**
- Development of the **linea nigra** from umbilicus to pubis
- Telangiectasis
- Palmar erythema

Symptoms: Amenorrhea, Nausea & vomiting, Breast pain, Quickening (fetal movement)

We have some subspecialties regarding pregnancy, like:

1. **High-risk pregnancy subspecialty:** doctors specialize in taking care of pregnant women with high-risk like the maternal risks or the fetal risks,
Maternal risks include: medical disorder with pregnancy high pressure, thyroid diseases, cancers
2. **Fetal subspecialty:** fetal scanning of the baby, to know the congenital anomalies, chromosomal anomalies and to know exactly about the baby and the preparation for the delivery

Labour management: where we deal with patients when they come to labor work, we divide them to low risk patients or high risk group, and those patients may end with normal vaginal delivery or caesarean section

It's the highly dependent area that emergencies may occur at any time, it's similar to the ICU

Delivery is divided into 3 stages:

1st stage: when the patient comes to labor work till she becomes fully dilated. The cervix is 10cm

2nd stage: 10cm to the delivery of the baby

3rd stage: delivery of the placenta

★ Gynecology:

Divided into many subspecialties (*just for general knowledge*):

1. **Reproductive medicine:** deals with endocrine disorders and in-vitro fertilization (IVF)
The endocrine is divided into:
 - adolescent gynecology (where we have the young patient who is having menstrual disorders and it's very important to study the menstrual cycle, which is divided into 2 parts, the follicular phase & luteal phase)
 - Thyroid and other endocrine disorders which may affect reproduction of women
 - IVF it's subspecialty recently started probably in the last 30-40 yrs, it help those patients who're infertile, we have different techniques for IVF
2. **Urogynecology subspecialty:** deals with the urinary bladder and the pelvic floor disorders: it deals with patients who are having urinary incontinence or pelvic organ prolapse, where
3. **Oncology subspecialty:** it deals with patients with different genital tract tumors, like vaginal cancers, vulvar cancers, cervical cancers, uterine cancer, endometrial cancers, tubal cancers and ovarian cancers
The most important thing is screening of cervical cancer by PAP smear , ovarian cancer by Ultrasound to look masses or tumors, and to do tumor markers
4. **Laparoscopic and endoscopic surgery (minimally invasive gynecological surgery):** you deal with laparoscopy to treat pelvic disorders by removing of adhesion in the pelvis, removing of tumors or fibroids, or through the vagina where you go through the cervix and you study the integrity of uterine cavity which is called hysteroscopy