وزارة التعليم العالي والبحث العلمي
جامعة مدينة العلم
كلية التمريض

(Maternity Nursing)

Nursing department / Third Class

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المرحلة الثالثة / قسم التمريض
تمريض النسائية

Anatomy and physiology of female reproductive system

1- Anatomy of female internal reproductive system

It composed of :-

- Ovaries
- Fallopian
- Uterus
- Vagina

Pelvis

- Gynecoid
- Android
- Anthropoid

1- False pelvis (upper part)
2- True pelvis (lower part)

Pelvis composed of 4 bones :-

1- Two innominate
   - Ilium
   - Ischium
   - Pubis
2- Sacrum
3- Coccyx

Test 1\ Enumerate the bones of pelvis

Ovaries are two almoned shaped organ that are situated in the upper part of the pelbic cavity

Function

1- Development and expulsion of ova .
2- Screate hormones (progesterone and estrogen) .

Fallopian tubes :- are two trumpet shaped they extened from the coruna of the ut. And open into pertonial cavity .

Parts of fallopian tube :-

1- Interstitial part (narrow)
2- Isthmic (middle part)
3- Ampulla (wider part)
4- Ovarian fimbriae

Function

1- Permit the passage of ova from ovary uterus .

2- Permit the passage of spermatozoa from ut. to meet the ova .
3- Fertilization take place in the ampullary part .

Test 2\ Enumerate the function of ovary

Uterus it a thick-walled muscular organ situated between the bladder and rectum . Is divided into 3 parts :-

1- Cervix
2- Body of uterus
3- Fundus

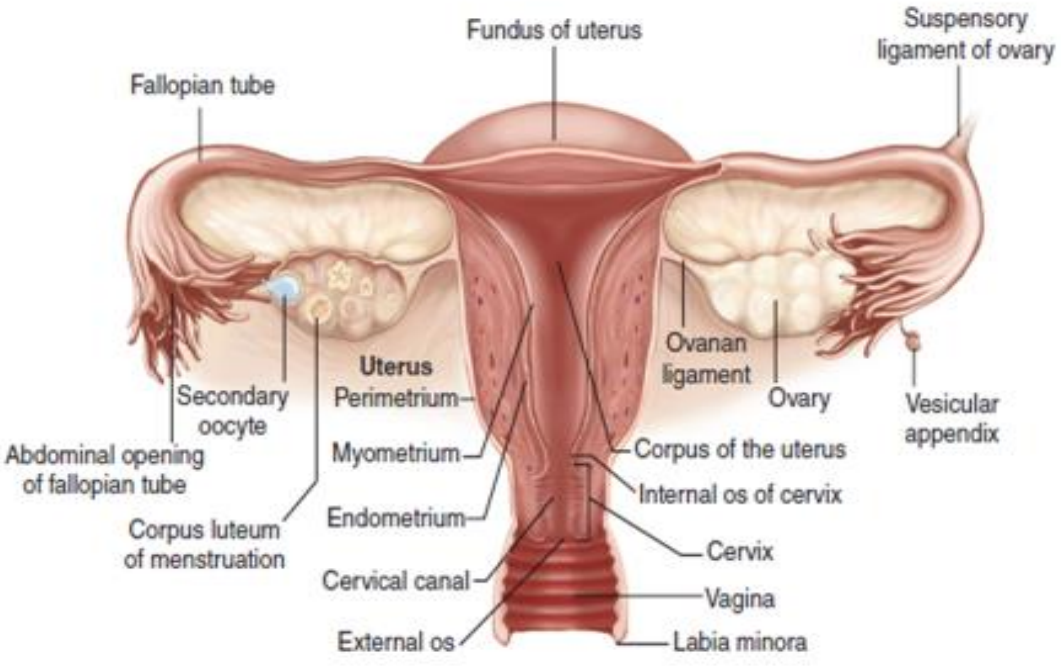
The uterus is supported by two way :-

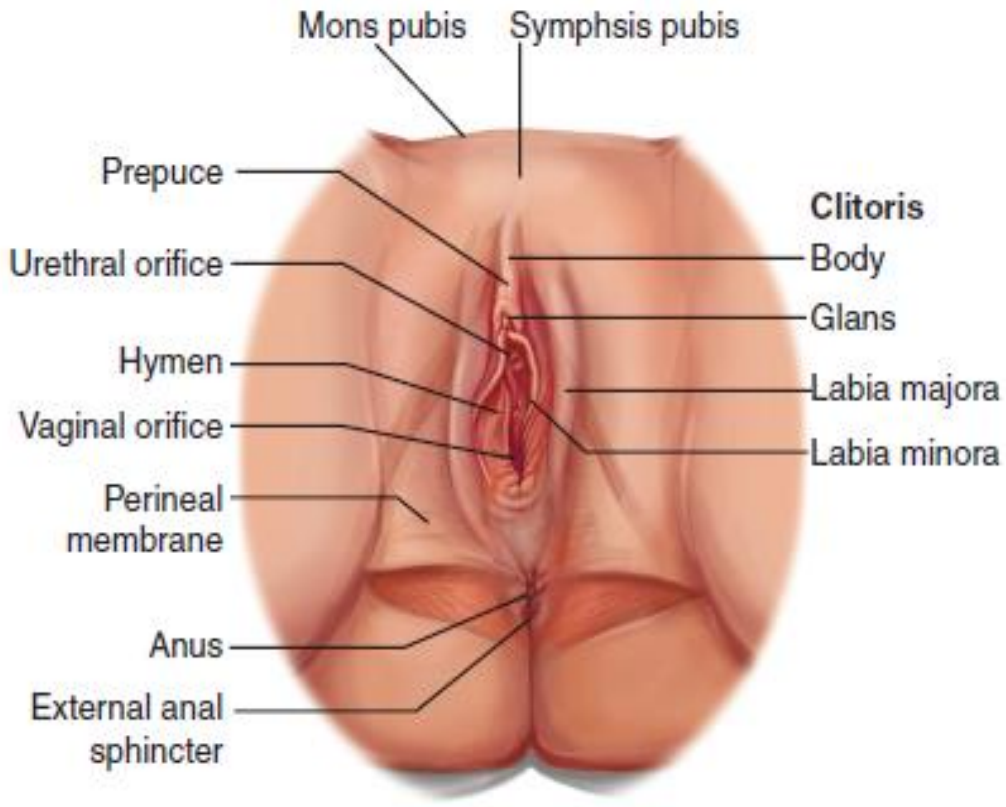
1- By muscles of pelvis
2- By ligaments
   - Utero-sacro
   - Round
   - Broad

Function :- it is the organ of menstruation and during pregnancy it receives the fertilized ovum retains and nourish until labor .

Vagina it strong muscle situated in the middle of the pelvis .

Test 3\ Define the uterus , vagina





Anatomy of male reproductive system

External structure:

- mons pubis.
- Penis.
- Scrotum

Internal structure

1. Testes:

- Two oval – shaped glandular organs inside the scrotum
- Produce spermatozoa.
- Produce testosterone, primary male sex hormone.

2. Epididymides:

- Serve as the initial section of the tests excretory duct system .
- Store spermatozoa as they mature and become motile.

3. Vas deferens.

- Serve as a conduit for spermatozoa .

4. Ejaculatory ducts: located between the seminal vesicles and the urethra.

- serve as passage ways for semen and seminal fluid .

5. Urethra: Extends from the bladder through the penis to the external urethral opening.

- Serves as the excretory duct for urine and semen.

Male accessory glands:

1. Seminal vesicles : two pouch like structures located between the bladder and the rectum.

- secrete a viscous fluid that aids in spermatozoa motility and metabolism

2. Prostate gland: located just below the bladder.

- Consists of glandular and muscular tissue.
- Homologous to skene's gland in females .
- Produces an alkaline fluid that enhances spermatozoa motility and lubricates the urethra during sexual activity.

3. Bulbourethral glands: (Cowper's glands): Two pea- sized glands that open into the posterior portion of the urethra.

- Secrete a thick alkaline fluid that neutralizes acid secretions in the female reproductive tract to prolonging spermatozoa survival.

Female reproductive cycle

Menstrual cycle

Menstrual cycle involves two simultaneous cycles:

- Ovarian cycle.
- Endometrial cycle .

It begins at menarche continue throughout a woman's reproductive life and ceases at menopause. It is regulated by hormones produced by endocrine structures.

I- Ovarian Cycle: There are two phases in this:

1. Follicular phase: a graafian follicle develops and ruptures begins on the 1st day of menstruation and usually lasts 14 days, culminating in ovulation.
2. Luteal phase: begins on day 15 and lasts through the end of cycle.

During the first 24 – 48 hours of this phase, the ovum is susceptible to fertilization.

1) Follicular phase: on the 1st day of menses primary follicles in the ovary begin t mature under influence of pituitary gland hormones between days 5- 7 a single follicle (graafian follicle) dominates and continue to mature while other follicles undergo involution.

On day 12 or 13 hormonal influence triggers swelling of the graafian follicle.

Around day 14, it ruptures and ovulation occurs as the mature ovum emerges and enters the fimbriated (fringed) end of the fallopian tube.

Clinical sings of ovulation:

- Mittelschmerz, abdominal pain in the ovarian region
- Body temperature changes typically a drop of $0.^{30}C$ – 0.6 ^{o}C $(0.5)^{0}F$ and then an increase above basal temperature.

- Elasticity of cervical mucus discharge before and after ovulation. Cervical mucus threads usually are 1-2 cm long. On the day of ovulation estrogen stimulation causes these threads to lengthen to 12 – 24 cm.

2) Luteal phase: After ovulation ruptured graafian follicle becomes compact mass of tissue known as Corpus luteum .

Corpus luteum: produces small amounts of estrogen and progesterone with stimulate changes in the uterine endometrium that prepare it to receive fertilized ovum and continues to secrete hormones for about 8 days. If the ovum is not fertilized the out put of estrogen and progesterone decreases as corpus luteum degenerates , the decrease hormone levels cannot support the endometrium. Menses occure in about 6 days initiating the next cycle.

If fertilization occurs, the gonadotropins produces by the trophoblasts courtside layer of embryonic cells) prevent the decline of corpus luteum stimulating it to produce large amount of estrogen and progesterone.

2-Endometrial Cycle:

This cycle has three phases:

1. Menstrual phase .
2. Proliferative phase .
3. secretory phase.

1) Menstrual Phase: begins on 1^{st} day of menses last ≅ 2^{nd}. Menstrual flow is typically dark read from the daily loss of 50 – 60 ml of blood endometrial tissue , cells and mucus are being discharge, endometrial basal layer regenerate.

2) Proliferative phase: begins on day 5 and lasts until ovulation typically on day 14 (6 days after cess of menses).

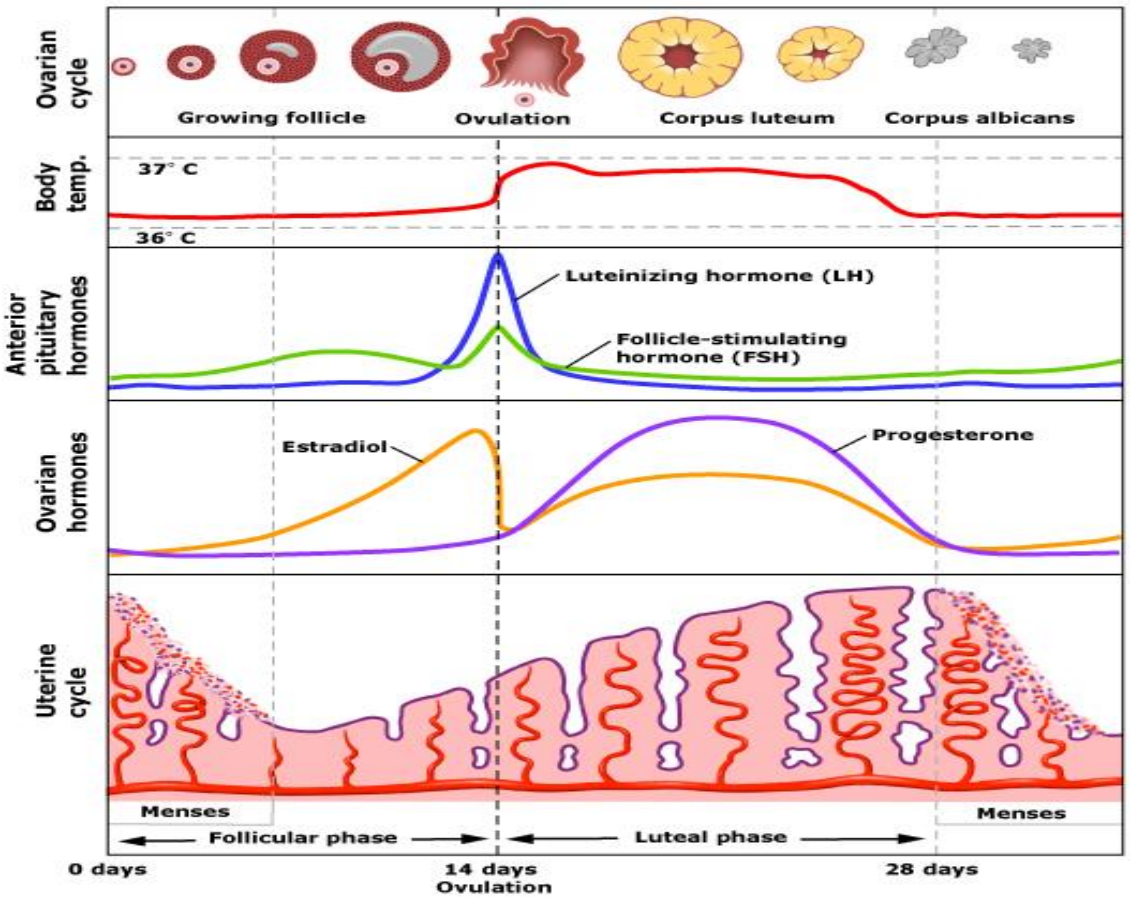
Endometrium is 1-2 mm thick and undergoes few changes, cervical mucus is sparse and viscous.

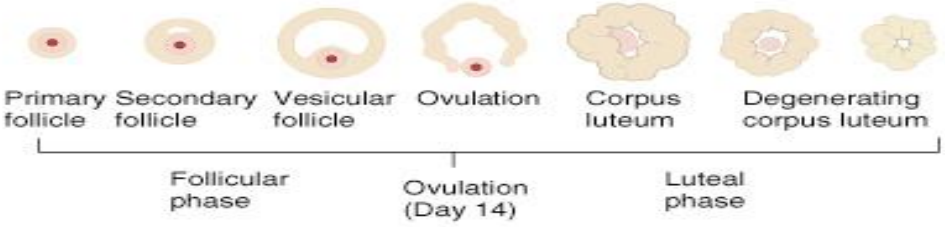
Esterogen secretion increase, the endametrium proliferates and thickness of uterus lining, increase 8-10 time before ovulation.

3) Secretory phase: After ovulation, progesterone release by corpus luteum increases endometrial vascularity

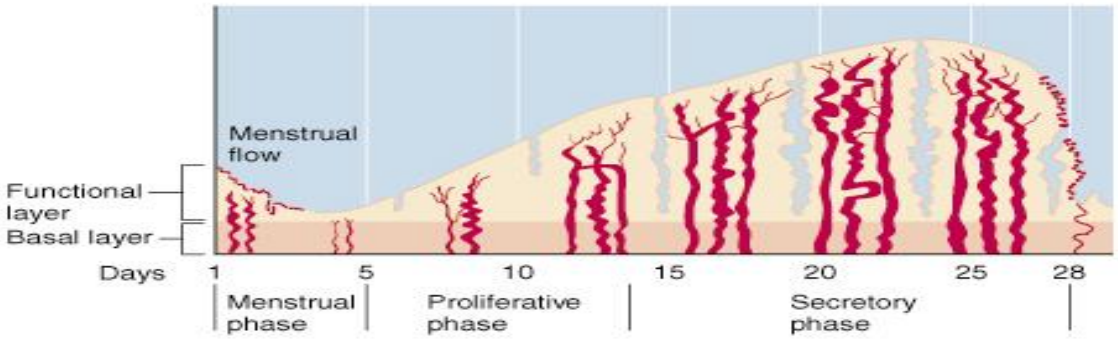
The secretary phase lasts from day 14–day 25. At the end, endometrium is soft and it about 4-6 mm thick rich with blood it is ready to nourish an implanted fertilized ovum.

When fertilization and implantation do not occur endometrial circulation decreases and blood vessels constrict and then relax and bleed tissue necrosis.





(c) Ovarian cycle



(d) Uterine cycle

The pregnancy

(Ovulation, Fertilization and Implant)

The first day of the menses is day 1 of the menstrual cycle. For the first 14 days of the cycle, one or more follicles in the ovary developed and mature. One follicle grows faster than the others, and on day 14 of the menstrual cycle, this follicle ruptures and ovulation occurs. If the ovum meets viable sperm, fertilization occurs in the fallopian tube. The remaining cells in the follicle form the corpus luteum or "Yellow Body" which makes important hormones, chief of them is progesterone, which prevents the sloughing of the endometrial well, ensuring ينشا a rich vascular network into which the fertilized ovum will implant.

The fertilized ovum now called the blastocyst, continues to divide, differentiate, and grow rapidly. Specialized cells in the blastocyst produce human chorionic gonadotropin (hCG), which stimulaters the corpus leuteum to continue making progesterone. Between days 20 – 24 the blastocyst implants into the wall of the uterus, which may cause a small amount at vaginal bleeding. A specialized layer of cells around the blastocyst becomes the placenta. The placenta starts to produce progesterone to support the pregnancy at 7 weeks, and takes over this function completely from the corpus leuteum at about 10 weeks.

Pregnancy (1) Signs and symptoms of pregnancy

Pregnancy :it's normal physiological process , it's state of being with child . normal duration of pregnancy is 280 days or 40 weeks , 10 lunar , 9 calender

stages of pregnancy

1- ovulation
2- insemination
3- fertilization
4- implantation

Signs and symptoms of pregnancy

1- presumptive signs :-

- menstrual suppression (amenorrha)
- nausea and vomiting (morning sickness)
- breast changes
- frequency of urination
- drowness and tiredness
- vaginal changes
- skin changes :-
  a- striae gravidarum (stretching of the skin)
  b- linea nigra
  c- chloasma uterinum
- psychological changes .

2- probable signs :-

- change in uterus (enlargement of the uterus) .
- uterine contraction
- palpation of the fetus
- quichening (the mothers first perception of the movement of the fetus 18-20 wks .
- positive lab. Test .

3- positive signs :-

- auscultation of fetal heart .
- palpate the fetal parts after 24 wks
- ultra sound
- x- ray

Calculation of the E.D.D.

By adding 7 days and 9 month or subtract 3 months
Ex. LMP. 15-4-2009

7-9

E.D.D. 22-1-2010

Test Calculate the E.D.D. if the LMP. 22-7-2009

Test put a circle in front of right sentence

1- the following are the presumptive signs of pregnancy except :-

a- morning sickness b- amenorrhea c- nausea and vomiting d- quickening

2- menstrual suppression is called :-

a- menarche b- menstruation c- amenorrhea

3- stretching of the skin during pregnancy is called :-

a- striae gravidarum b- linea nigra c- chloasmauterinum

4- which one is the first stage of pregnancy :-

a- insemination b- ovulation c- fertilization

d- implantation

5- the normal duration of pregnancy is :-

a- 280 days b- 40 weeks c- 9 months

d- all of these

Pregnancy (2)Desidua , placenta ,amniotic fluid size and development of the fetus

pregnancy -2-

desidua :- it's change of the endometrum the placenta .

function :-

1- Act as barrier
2- Secret HCG hormone .

Placenta 15-20 cm in diameter
1\2 kg weight

Function

1- nutrition
2- O2 and CO2 exchange .
3- Help fetus indigestion .
4- Transfer of heat .

Test 1\ Enumerate the function of placenta

Umbilical cord

50 cm length .
1-2 cm width
Contain 2 arteries and one vein

Fetal membrane amnion and chorine

Amniotic fluid normal amount 500-1500 cc contain K+ , Ca++ , Na protein , estrogen .

Function

1- Protect fetus
2- Easy movement of fetus
3- Keep fetus at mean temperature
4- Help in dilatation of cervix during labor

Test 2\ what are the function of amniotic fluid

Size and development of the fetus
Ovum – fertilized ova the first 2 weeks .
Embryo – from 2^{nd} to the 5^{th} wks .
Fetus – after 5^{th} weeks to the time of birth .

1st month (4 week) – nervous system gen. to- urinary system , skin , bones , lungs are formed , arm and legs begin to form , eyes ears and nose appear .

2nd month (8 week) – head enlarged , sex differentiation begins .
3rd month – fingers and toes are distinct placenta is complete , fetal circulation .
4th month – fetal movements are felt by mother heart sounds by auscultation.
5th month – skin appears , vernix caseosa .
6th month – appears , eyebrows and finger nails develop
7th month – skin is red
8th month – eye lids open , fetal movement
9th month – amniotic fluid decreases .

Test 3\ Describe the development of fetus during 4th month

Post-test put a circle in front of right sentence

1- the following statements are true except :-
   a- the normal amount of amniotic fluid is 500-1500 cc .
   b- amniotic fluid contain K+ , Ca++ , Na .
   c- amniotic fluid help fetus indigestion .
2- the function of placenta is :-
   a- nutrition
   b- O2 and CO2 exchange .
   c- Transfer of heat .
   d- All of these
3- Fertilized ova within the first 2 weeks is called :-
   a- embryo b- ovum c- fetus

1- The contents of the umbilical cord are :-
   a- two umbilical arteries only b- two veins and one umbilical artery c- one vein and two umbilical arteries
2- the approximate weight of the placenta is :-
   a- 1\2 kg b- 1 kg c- 1 1\2 kg

Antenatal care

Antenatal care : refers to the medical and nursing care given to the pregnant women during the period between conception and the onset of labor .

It includes :-

1- History :-
   a- Personal H.
   b- Family H.
2- Past history (medical & surgical H.).
3- Obstetrical history :-
   - G.P.A.
   - L.M.P. & EDD
4- Laboratory test :-

- Urine exam \ for albumin and sugar
- Blood exam \ Blood group , Rh , Hb %

5- Physical examination – chest , abdomen , vaginal exam , fetal exam (fetal heart , fetal part and position)
6- Antenatal visits :-

- 1-6 month \ once per month
- 7-8 month \ every 2 weeks
- 9 month \ every per week

Each visit will be exam the general condition , B\P , weight , fetal growth and monitor any changes or signs or symptoms such as bleeding , edema , pain , fever and headache .

Test 1\ Define the antenatal care

- In last visit will exam the pelvis and fetal size and position .

7- Vaccination :-

4^{th} month
5^{th} month
1^{st} after 6 month
2^{nd} after year
3^{rd} after year
} tetanus

Antenatal advices

- Rest , relaxation and sleep – rest for a half hour every morning with afternoon and at least 9 hrs sleep should be obtained every night .
- Exercise – such as walking in the fresh air avoid holding heavy objects .
- Breast care – must need clean to prevent infection .
- Alcohol and smoking – should be avoided , effect to cardiac output the CO2 ↑ & O2 ↓
- Care of the teeth – protect from any infection and must be treated .
- Diet – need adequate and food to growth and development of fetus , to prevent complication to maintained mother health , to successful lactation , for active with physical strength during labor . she need protein , CHO , minerals , Iron , vitamins and decrease tea and coffee .

Test 3\ Enumerate the benefits of good nutrition during pregnancy

General problems During pregnancy

General problems during pregnancy

1- Hyperemesis gravidarum :- it is severe form of morning sickness , occurs in 50 % of pregnant woman

Signs & symptoms :-

1- Recurrent vomiting
2- Dry mouth
3- Tacky cardiac
4- Decrease weight
5- Acetone breathing
6- Dark urine
7- Constipation

Causes :-

1- Psychological
2- Hormonal – decrease peristalsis of intestine
3- Other causes
   - Appendicitis
   - Ovarian cyst
   - Peptic ulcer

Treatment and nursing care :-

- Admission to hospital
- Nothing by mouth for 24 hr. IV. Fluid
- Antiemetic – B6
- Psychological support
- Complete bed rest
- Call doctor if :-
  a- Pulse rate > 100\min
  b- Temperature > 37 c
  c- Jaundice
  d- Protein & urobilinogen
  e- Signs of amnesia , delusions , diplopia , fainting

Test 1\ Enumerate the signs & symptoms of hyperemesis gravidarum

2- Heart burn :- occur in late pregnancy due to pressure of uterus on stomach .

Management and nursing care :-

1- Stop fatty food .
2- Small frequent meals .
3- Pillow under head .
4- Encourage milk intake .

3- Hemorrhoids – it's varicose of lower part of rectum and anus lead to bleeding specially with constipation .

Treatment and nursing care :-

1- Avoid constipation .
2- Use cold sponging on area .
3- Do massage using ointment .

4- Edema :- it's swelling of the lower extremities due to :-

1- normal reduction of proteins in pregnancy which tend to draw fluid into the tissues .
2- venous pressure due to enlarged uterus .
3- wearing constricting bands .
4- standing for long time .

Treatment :-

1- Pt. may have to stay in bed and take rest .
2- elevate legs .

Test 2\ Define hemorrhoids , edema

5- Constipation :-

Causes :-

1- Diminishing peristalsis movement of the intestine .
2- Pressure of the enlarged uterus .

Treatment :-

1- Good bowel habits
2- Take adequate fluid
3- Exercise
4- Cascara by doctor order .
5- Varicose veins – it's enlargement in the diameter of a vein due to :-
    1- Increase of progesterone .
    2- Physical and hormonal changes .
    3- Uterus pressure on the lower extremities .
    4- Prolonged standing .
    5- Multigravida .

Signs and symptoms :-

1- Pain in legs .
2- Engorgement of superficial veins .
3- Edema .

Treatment :-

1- Avoid long periods of standing .
2- Sit with her feet raised on stool .
3- Lie down for an hour with her feet higher than her head .
4- Avoid tight cloths .

Test 3\ Enumerate the signs and symptoms of varicose vein .

Post-test put a circle in front of right sentence

1- The severe form of morning sickness is called :-

A- hyperemesis gravidarum
B- nausea and vomiting
C- heart burn

2- Swelling of the lower extremities during pregnancy called :-

A- edema
B- varicose vein
C- hemorrhoid

3- Varicose of lower part of rectum and anus during pregnancy called:-

A- edema
B- hemorrhoid
C- varicose vein

4- The main causes of hyperemesis gravidarum are :-

A- psychological b- hormonal c- ovarian cyst
D- all of these

5- Enlargement in the diameter of vein during pregnancy called :-

A- hemorrhoid
B- edema
C- varicose vein

Gynecological Disorder

((Menstrual Disturbances))

*Menorrhagia:- means regular excessive menstrual bleeding.

*Metrorrhagia:- means irregular excessive menstrual bleeding.

Cause of menorrhagia:-

1-Uterine fibroid.

2-Adenomyosis.

3-Pelvic endometriosis.

4-Salpengeoopheritis.

5-Intrauterine contraceptive device (I.U.C.D).

Cause of metrorrhagia:-

1-Uterine caruncle.

2-Carsinoma of cervix.

3-Carsinoma of uterus.

4-Estrogen secreting ovarian tumors.

Test(1):- Define menorrhagia, and enumerate its causes?

Dysfunctional uterine bleeding (D.U.B):-

It is uterine bleeding that occurs at any age between menarche and menopause and is not related to local disorders or pregnancy.

Causes of D.U.B:-

It may be caused by alteration in the output or balance of gonadotrophins or ovarian hormones or endometrial prostaglandins.

Test(2):-Define Dysfunctional uterine bleeding (D.U.B)?

Causes of D.U.B:-

1-Corpus luteum insufficiency.

Lead to early and prolonged menstruation.

2- 1-Corpus luteum persistent.

Lead to late and prolonged menstruation.

3-increasd estrogen secretion in anovulatory cycle and cystic glandular hyperplasia.

4-Around puberty in few periods after menarche.

5-Around menopause mostly due to cystic glandular hyperplasia.

Management:-

1-careful history about pattern of bleeding.

2- per vaginal exam and speculum exam to exclude any pelvic Pathology.

3-Hormones -Serum estrogen -FSH -LH -Serum Prolactin.

4-pelvic ultrasound.

5-treat the cause if present.

If dysfunctional treated by progesterone.

Provera or primolut-N- 5mg tab:-

-from day 16-26th of cycle.

-from 5th day of cycle for 20 days.

6-Hysterectomy.

((Genital prolapsed))

Definition:-

It is a descent of some of pelvic organs from their normal position and may herniated through the vaginal opening and it occurs when there is damage to or weakness of the structures that support the pelvic organs.

1-Vaginal wall prolapsed:-

a-Cystocele:-

prolapse of urinary bladder with anterior vaginal wall through vaginal opening

b-Rectocele:-

prolapse of rectum with posterior vaginal wall through vaginal opening and usually accompanied by deficiency of perineal body.

2-Uterine prolapse:-

Prolapse of uterus usually accompanied by descent or inversion

of vaginal vault.

*There are three degrees of uterine prolapse:-

1st degree:-

When the uterus retroverted and descend into the vagina but the cervix does not reach the interiotus.

2nd degree:-

When the cervix appears at the interiotus but only protrudes through it on straining.

3rd degree:-

When whole uterus lies outside the vagina and this is the complete form also called (procidentia).

Test(1):-Define genital prolapse and classify it?

Causes:-

1-Obstetric factors:

-overstretching of vagina.

-pushing down before full dilatation.

-tearing and overstretching of perineal body.

-prolonged second stage of labor.

-forceps delivery.

2-Post menopausal atrophy.

3-post operative prolapse-after hysterectomy.

4-Lifting heavy weights.

Test(2):-Enumerate causes of genital prolapse?

Symptoms:-

1-Local discomfort.

2-Backache.

3-Urinary symptoms (with Cystocele):-

-frequency.

-stress incontinence.

-urge incontinence.

4-Bowell symptoms (With rectocele).

-difficulty in defecation.

5-Dyspareunia or unsatisfactory sex.

6-Ulceration and bleeding(in procidentia).

Diagnosis:-

1-may be obvious on inspection.

2-lying on back and strain down.

3-speculum exam on left lateral position.

Treatment:-

1-Prevention:-

-support perineum during delivery.

-Perform episiotomy when needed.

-Prevent lifting heavy weights.

2-Pelvic floor exercise-for mild cases.

3-Esrogen replacement therapy-for menopausal atrophy.

4-Vaginal ring used for patient who:-

-want to have more babies.

-are unfitted for surgery(too old or too ill).

-refuse surgery.

5-surgery:-

-Hysterectomy- menopause or near menopause.

Test(3):-Discuss the treatment of genital prolapse?

((Infertility))

Infertility:-

It is a failure of a couple to achieve pregnancy after one year of trying.

Causes:-

A-ovulatory failure:-

1-Hypothalamus (as in stress condition).

2-Phtuitary disease or dysfunction (FSH,LH,Prolactin).

3-Thyroid (Hypothyroidism).

4-Adrenal dysfunction (Cushing syndrome).

5-Primary ovarian dysfunction such as:-

-Absent ovary or ovarian dysgenesis.

-Premature menopause.

B-Failure 0f oocyte or embryo transport:-

-Tubal blockage.

-Endometriosis.

-Liomyomas (uterine fibroid).

C-Cervical mucus hostility.

Test(1):-Define infertility and enumerate causes of infertility?

Investigations:-

1-Semen analysis.

2-Tests for ovulation:-

-Luteal phase progesterone analysis(21 day of cycle).

-LH surge (at mid cycle).

-Follicle tracking by ultrasound.

-Changes in cervical mucus.

3-Tests for tubal patency:-

-Laparoscopy and dye insufflation.

-Hysterosalpingography (HSG).

4-Postcoital test (PCT):-

-Should be done within 12 hours after intercourse at mid-cycle.

Test (2):- what investigations that are necessary for diagnosis of infertility?

Treatment:-

1-treatment of ovarian failure:

2-Treatment of tubal disease:-

* Tubal surgery which include:-

- Salpingolysis.

-Salpingostomy.

-Tubal reanastomosis and reimplantation.

3-Assisted conception procedures:-

(A)-Intra-Uterine Insemination(IUI):-

(B)-In vitro fertilization (IVF):-

(C)-Gametes Intra-f=Fallopian Transfer (GIFT):-

(D)-Zygote Intra-Fallopian Transfer (ZIFT):-

Anemia and diabetes Mellitus during pregnancy

Anemia during pregnancy

Causes :-

1- Increase need of the mother by the growing fetus .
2- Iron deficiency
3- Folic acid deficiency

Signs & symptoms :-

- Weight loss
- Skin pale
- Fatigue
- Palpitation
- Dizziness
- Headache

Effect of anemia on pregnancy :-

1- Premature birth
2- Abortion
3- Small for gestational age
4- Decrease immunity
5- Weak fetus
6- Increase uterine bleeding

Treatment :-

1- Take folic acid daily
2- In severe anemia need blood transfusion .
3- Iron therapy
4- Good diet rich with , especially after third mouth .

Test 1\ Enumerate the causes of anemia .

Diabetes mellitus during pregnancy
Effect of diabetes on pregnant woman :-

1- Decrease immunity
2- Slow and difficult labor
3- Increase incidence of C\S
4- Increase incidence of pre-eclampsia
5- Maternal death

Effect of diabetes on fetus :-

1- Macrosomia – increase fetal size .
2- Habitual abortion .
3- Congenital malformations .
4- Prenatal death .
5- Polyhydramnios .

Signs and symptoms :-

1- Poly urea , poly depsia , poly phagia
2- Delay wound healing .
3- Loss of weight .
4- Glucose urea .
5- Loss or disturb vision .

Treatment & nursing care :-

1- Admission at third month to regulate blood sugar by insulin .
2- Antenatal care-every week after third month because blood sugar increase with pregnancy .
3- Diet control .
4- During cold and morning sickness , consult the doctor .
5- Psychological rest .
6- Admission at 36 week .
7- Induction of labor or C\S to avoid complication at 37 wks .

Preparation for C\S

1- Avoid CHO one day before operation
2- Give soluble insulin one day before C\S

Test 2\ Enumerate the effects of DM. on pregnancy women .

Complication of pregnancy Hypertension Toxemia of pregnancy

Complication of pregnancy

Hypertension :- start at begging of pregnancy not disappear after delivery.

Complication

- Intrauterine death .
- Early separation of placenta .
- Renal failure .
- Abortion .
- Antipartium hemorrhage .

Treatment and nursing care :-

1- Complete bed rest .
2- Antenatal monitoring of B\P and fetal health
3- Diet free from salt .
4- In sever cases admit to hospital .
5- G.U.E. exam every wk for protein .
6- Checking vital signs and fluid input & output .
7- Give antihypertensive drugs .
8- Give sedative
9- During last week's monitor fetal condition and may do termination by C\S .

Toxemia of pregnancy

It is hypertension disorders include a variety of vascular disturbance occurs during gestation of the early puerperium and disappeared after delivery .

Predisposing factors :-

- Common in primigravida
- Age < 20> 35
- Chronic hypertension
- Low socioeconomic status
- H.mole
- Diabetes

Characterized by :-

1- Hypertension
2- Edema
3- Protein urea

Classification of toxemia of pregnancy

Classification of toxemia

1- Pre-eclampsia
2- Eclampsia

Signs & symptoms of pre-eclampsia

1- Sudden hypertension
2- Headache
3- Swelling of the face , fingers and foot
4- Blurring of vision
5- Excessive weight gain .
6- Epigastria pain .

Complications

A – on mother

1- Eclampia
2- Abruption placenta
3- Antipartum haemorrhage .
4- Hepatic & renal failure

B- on fetus

1- IUD (intrauterine death)
2- Prematurity .
3- Prenatal death

Test 1\ What are the main complications of P.E.T. on the fetus ?

Management & nursing care :-

1- Preventive .

- Monitor B\P , Wt , proteinuria specially between 20-30 wks .
- More frequent antenatal visit .
- Good nutrition (protein , iron , vit) and decrease salt .
- Complete bed rest .

2- In severe cases

- Admit to hospital
- Give antihypertensive drugs , aldomet , adalat
- Give sedatives , valium , phenobarbitone
- Restrict fluid intake & salt
- Increase protein and calcium
- Measure B\P , wt , G.U.E. every wk .

Measurement for delivery :- termination of pregnancy after 38 wks

1- Induction :- By pitocin drip .
2- By C\S , if severe complication occur .

Nursing care during labor

1- Monitory B\P & protein urea
2- Monitor the general condition .
3- Monitor the FH.
4- Give sedation-valium amp .
5- Use epidural anesthesia
6- Monitor vital signs .
7- Monitor fluid intake and out put .
8- Sometime need episiotomy or forceps.
9- Psychological support .
10- If B\P increase give apresolin drip .

Nursing care after labor

In some cases fit may occurs after labor

1- Give sedative-morphin 15 mg IM.
2- Sometime need anticonvalsant drugs e.g. magnesium sulphate
3- Measure B\P every 1\2 hr if remain high , then every 4 hr . for 24 hr. then twice daily if the B\P decrease .

Test 2\ What are the preventive measurement of toxemia ?

Eclampsia

Eclampsia : It is an acute condition characterized by convulsion and coma .

Stages of eclampsia

1- Premonitory stage
2- Tonic stage
3- Clonic stage
4- Coma stage

Management and nursing care

Main aim is to control fit and delivery as quickly as possible .

1- Admit to I.C.U.
2- Sleep in quite dark room and put cotton in ears .
3- Put in bed with walls and tight to it .
4- Give O2 , and put the pt. on lateral position , and use sucker for respiratory tract.
5- Vital signs every 1\2 hr
6- Remove artificial teeth , and put mouth closer .
7- Urinary catheter .
8- Drugs according to doctor order .

Complication of eclampsia

A- To fetus :-

- Anoxia
- Still birth

B- To mother :-

- Cerebral hemorrhage .
- Thrombosis
- Mental disturbances
- Hepatic failure
- Renal failure
- Heart failure
- Aspirating pneumonia
- Temporary blindness
- Tongue bite or injury
- Fracture of bones .

Test 2\ What are the complication of eclampsia on fetus

Uterine bleeding during pregnancy Abortion

Uterine bleeding during pregnancy : It is dangerous complication may lead to death of mother and fetus.

Causes :-

A- During first half of pregnancy

1- Abortion
2- Hydatidi form mole
3- Ectopic pregnancy

B- During second half of pregnancy

1- Abruptia placenta
2- Placenta previa
3- Rupture of uterus
4- Carcinoma of cervix

Abortion expulsion of fetus and placenta outside the uterus before 20 wks of pregnancy
Early abortion – before 12 wk
Late abortion- between 12-26 wks

Causes :-

A- Fetal causes

- Chromosomal abnormalities
- H.Mole

B- Maternal causes

1- General causes

a- Infection lead to fever .
b- Chronic nephritis
c- Diabetes mellitus
d- Trauma
e- Hormonal disturbances
f- Used drugs e.g. quinine
g- Malnutrition

2- Local causes

a- Uterine malformations
b- Uterine fibroid
c- Cervical incompetence

Types of abortion

A- Induced abortion

1- Medical or therapeutic abortion

Indications :-

1- Heart disease
2- Chronic hypertension
3- Respiratory disease
4- Hyperemesis gravidarum
5- H.Mole
6- Intra uterine death
7- Malignant disease
8- Inherited disease
9- Rh-iso immunization
10- Viral disease

Done in a hospital and be sure that complication of medical abortion is less than that of the original cause .

Method :-

A- During first 12 wks dilatation & curettage (D&C) under general anesthesia .

1- Empty bladder
2- Prepare instruments
3- Explain to patient
4- Give general anesthesia
5- Do dilatation
6- Do curettage-by clean instruments .
7- Vital signs checking
8- Give drugs that contract the uterus e.g. methergin .

B- Between 12-26 wks induction of labor by pitocin drip .

1- Complete rest
2- Checking vital signs & uterine contraction
3- Clean vulva, perineum .
4- Watch bleeding (color & smell)
5- Complete delivery of fetus , placenta , membrane .
6- Good nutrition , rich with protein , and iron .

Spontaneous abortion

Spontaneous abortion

Threatened abortion

Signs and symptoms

1- uterine bleeding
2- mild abdominal pain
3- closed cervix
4- membrane intact

treatment and nursing care

1- Admission to hospital
2- Complete bed rest
3- Check vital signs
4- Monitor vaginal bleeding (colour and smell)
5- Pregnancy test , HB % , blood group , Rh
6- Ultrasound
7- Give sedation like valium
8- Gibe iron , vitamins
9- Body hygiene specially valve
10- Advice at home – rest and take good nutrition

Inevitable abortion

Signs and symptoms :-

1- sever uterine contractions
2- continuous uterine bleeding
3- cervical dilatation
4- rupture of membranes

treatment and nursing care

same as for threatened abortion in addition to :-

1- give pethidin
2- give blood transfusion
3- complete abortion by curettage

Incomplete abortion

it's expulsion of fetus but placenta still inside uterus .

signs and symptoms

1- severe uterine bleeding
2- severe uterine contraction
3- cervical dilatation

Treatment and nursing care

1- Curettage if less than 12 wks
2- Induction by pitocin and then curettage if more than 12 wks
3- Body hygiene
4- Good nutrition rich with protein and iron

Complete abortion It is expulsion of fetus , placenta , and membrane all outside the uterus mainly before 8 wks .

Signs and symptoms :-

1- Cervical dilation and uterine contraction during abortion .
2- After abortion occur the uterine contraction , and bleeding stopped cervix closed and uterus returned to normal .

Treatment and nursing care

1- Be sure of complete abortion
2- Check bleeding and vital signs
3- Give drugs according to doctor order

Missed abortion Death of fetus inside the uterus and remains for weeks or months

Signs and symptoms :-

1- Sometime sings of threatened abortion
2- Disappear of symptoms of pregnancy
3- Pregnancy test negative
4- Uterus small for date
5- No FH or FM
6- Serum fibrinogen become less than normal
7- Cervix is closed

Treatment & nursing care

1- Do evacuation of uterus by curettage if less than 12 wks or by induction with pitocin if more than 12 wks sometimes need C\S .
2- sometime the pt. needs heparin for 2-3 days then evacuate the uterus .

habitual abortion

1- Advice the mother to do investigations for diabetes , renal disease , hypothyroidism .
2- Examination for uterus , pelvic , ultrasound , and hysterosalpengeography .
3- Avoid coitus during early pregnancy
4- Physical and psychological rest
5- Good nutrition
6- Treat the cause
7- Treat during pregnancy
    - Progesterone (primolut-depot) inj.
    - Cervical stitch (shirodkar suture) after 10-12 wks and release at 38 wks for cervical incompetence

Test 3\ What are the treatment of habitual abortion during pregnancy ?

Ectopic pregnancy

Ectopic pregnancy : The fertilized ovum embeds outside the uterine cavity .

Types :- commonly in the tube 95 %
Abdomen 3-4 %
Ovarian 1%
Cervix very rare

Test 1\ what are the types of ectopic pregnancy ?

Causes

1- infection e.g. puerperal infection
2- peritoneal a adhesion by previous operation
3- congenital abnormalities
4- use of intrauterine device
5- chronic salipingitis (narrowing or obstruction)
6- uterine fibroid
7- hormonal distribance

signs and symptoms

1- Lower abdominal pain
2- Slight irregular bleeding from the uterus
3- Palpation pelvic mass
4- If the tube is rupture lead to appear signs and symptoms of chock (fainting ,↓ B\P , pallor , cold skin , rapid pulse)

Diagnosis :- US , laparoscopy

Management

1- Treat shock
2- Warm the pt.
3- Raising the foot of the bed
4- Blood transfusion
5- Check vital sings
6- Give Iv. Fluid
7- Salipingectomy

Hydatid form mole : It disease of the chorine characterized by cystic degeneration of the chronic villa which become distended with fluid and are converted into vesicles . it occurs in the first twelve weeks of pregnancy .
It occurs in 1 in 2000 pregnancies

Causes :- unknown cause

Signs and symptoms

1- excessive nausea and vomiting
2- uterus size is larger than gestational age
3- there may be signs of P.E.T. before 24 wks
4- V.B. may be slight or sever
5- Rapid onset of anemia
6- Uterus soft on examination
7- No fetal part , nofM and fH

Diagnosis :- confirmed by U \ S.

Management :- the uterus is emptied as soon as diagnosis confirmed . if the mole is small and the pregnancy in first trimester a suction curettage is used .
If the mole or prostaglandin is used .
The pt. should be kept under observation for at least one year . curettage is repeated to ensure no mole remain . the pt. advised to avoid further pregnancy for 1-2 yrs.

Complications :-

- chorine carcinoma
- hemorrhage

Antipartum hemorrhage (A.P.H)Placenta Previa

Placenta previa implantation of placenta in the lower uterine segment instead of the uterine fundus occurs during 3rd trimester of pregnancy after the 7th month .

Types :-

1- total P.P.
2- Partial P.P.
3- Low implantation of placenta

Causes :- unknown

It more common in :-

- multipara
- maternal age > 35 age
- twin pregnancy
- breech presentation

signs and symptoms

- painless V.B.
- normal FM & FH
- Cause malpresentation or malposition
- V.B. it occurs during rest and sleep .

Diagnosis :- confirmed by

- pt. history
- signs and symptoms
- obs. Exam
- U\S

PV is avoided in P.P.

Treatment and nursing care

- Admission to hospital
- Bed rest
- Keep pt. on flat position and elevate her foot .
- Low implantation – induce labor by artificial rupture of membrane
- Partial and total P.P. will do C\S
- Observe the V.B.
- Give Iv. Fluid of glucose 5 %
- Blood transfusion as needed .

- Check FH. & vital signs every 2 hrs
- Never do enema .
- Good diet rich with iron and vitamins .
- Observe the sings of shock and treat it quickly
- Preparation of C\S if V.B. is severe .

Dangerous of Placenta previa (P.P.)

- Antepartum partum hemorrhage (A.P.H). (shock)
- P0st partum hemorrhage (P.P.H.)
- Still birth
- Puerperal sepsis

Abruptia Placenta

Abruptia placenta : It is premature separation of placenta from it's uterine attachment in upper uterine segment

Causes

- unknown
- increase parity and maternal age .
- dietary deficiency (folic acid , V.D. def.)
- trauma
- P.E.T.
- Short umbilical cord
- Uterine abnormalities or tumor
- Multi pregnancy and polyhydraminos
- Emotional stress

Types

1- Revealed haemorrhage
2- Concealed haemorrhage

Test 1\ what are the types of abruptia placenta

Signs and symptoms

- Bleeding with pain
- Distention of the uterus
- Difficult palpation of fetal part
- Shock
- Abnormal or absent FH.

Test 2\ what are the differences between Placenta Previa. and abruptia placenta ?

Diagnosis :- by

- pt. history
- signs and symptoms
- obst. exam
- U\S

Treatment

Induction of labor by (A.R.M) or oxytocin if fetus is dead .
Delivery by C\S , if fetus alive .

Nursing care :-

- Treat shock
- Replace fluid
- Check intake and out put
- Blood transfusion
- Give sedative like pethidine
- Check vital signs every 2hrs
- Observe for P.P.H.
- Bed rest

Complications

- hypofibrinogenemia
- hemorrhagic shock
- prolonged retention of dead fetus
- septic abortion
- hysterectomy if uterus not contract well

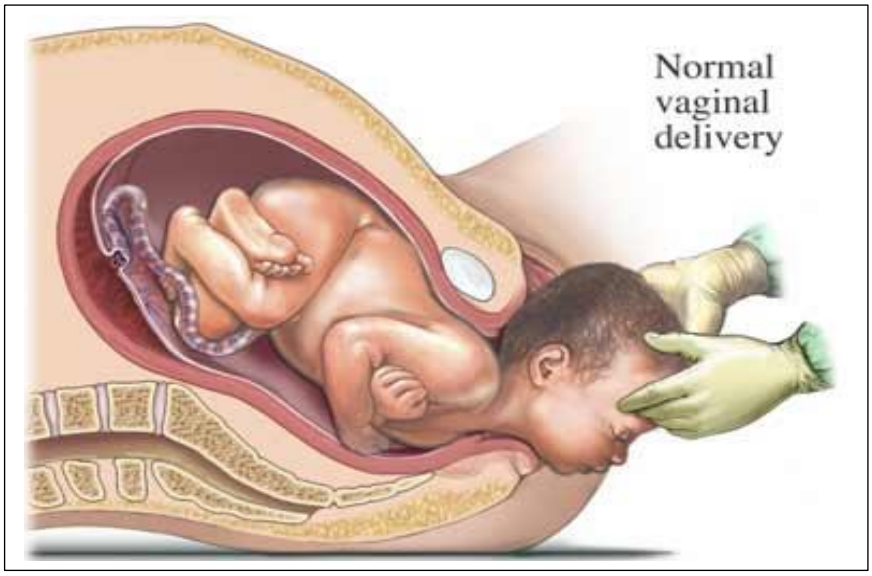
Differences between placenta previa and abrubtia

Placenta previa	Abruptia placenta
1- pain less	1- painful
2- V.B.	2- V.B. may be external or internal
3- uterus soft	3- uterus tender
4- normal FH & FM	4- abnormal FH or absent
5- sudden onset	5- onset by trauma or cause

Normal labor

Labor:-The expulsion of the fetus , placenta , membranes .and cord from the uterus via the birth canal .

Delivery :- The actual birth of the baby .

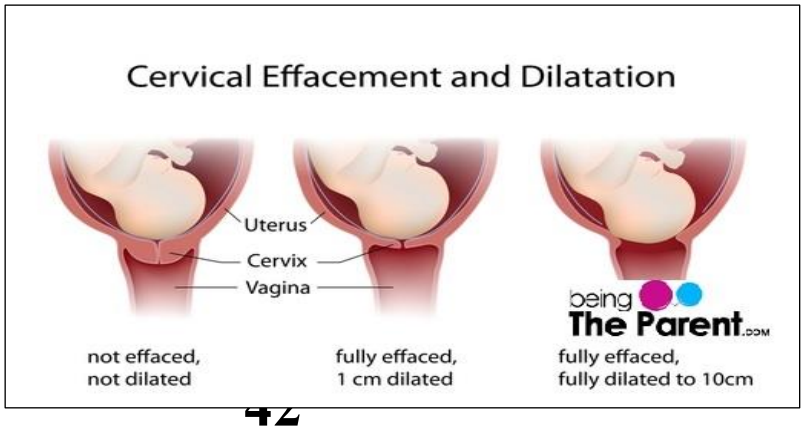


The onset of labor :-

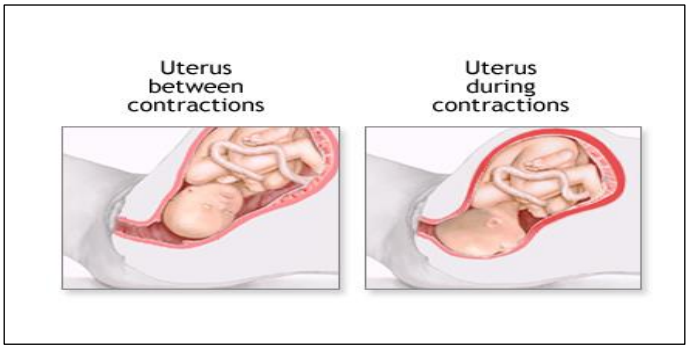
•sensitivity of the uterus to oxytoxic drugs .
•progesterone suddenly drops down before labor .
•prostaglandin synthesis which lead to increase muscle contraction .

Signs of true labor

1- Show-- expulsion of blood mixed with mucus from the cervix
2- Effacement--Thinning the cervix (3 cm to zero)
3- Dilatation - The degree of opening of the cervical os (10 cm or 4 fingers



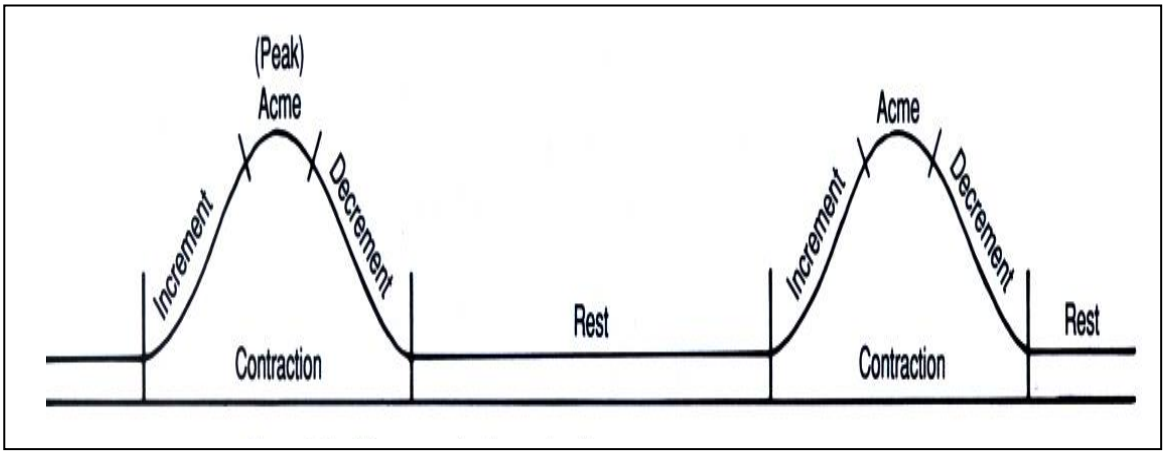
4- Uterine contractions



Characteristics of contractions

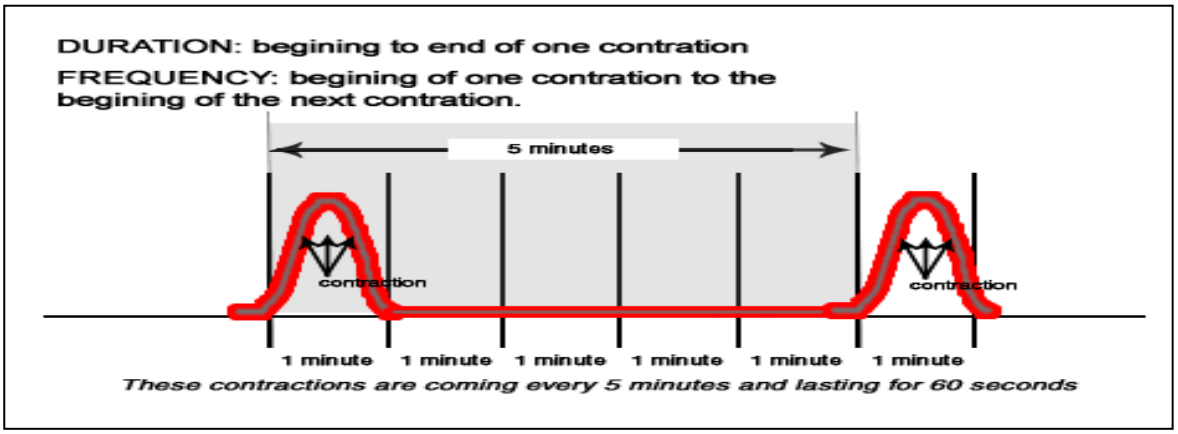
A- Phases:

1. Increment: the building–up phase and longest phase.
2. Acme: the peak of the contraction.
3. Decrement: the letting–up phase (the period of diminishing intensity).



Duration

1. Is measured from the beginning of the increment to the end of the decrement.
2. Averages 30 second in early labor and 60 seconds in later labor.



B- Frequency

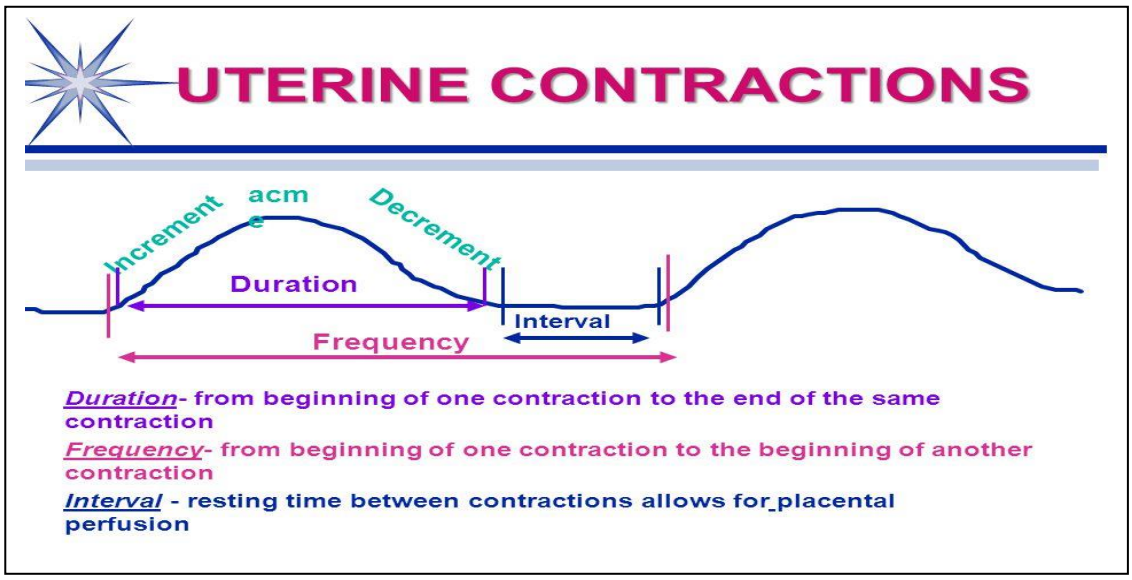
1. Is measured from the beginning of one contraction to the beginning of the next.
2. Averages 5 – 30 min a part in early labor and 2-3 minutes apart in later labor.

C-Intensity

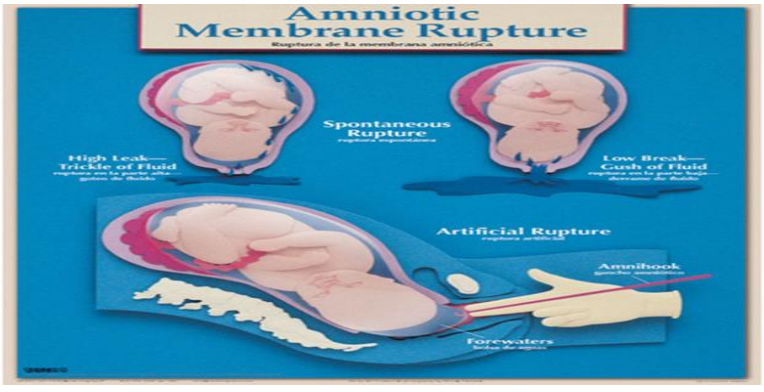
1. Is measured during the acme phase.
2. Can be measured with intrauterine catheter or by palpation.

- The intensity may be mild , moderate , or strong.

a. Mild : uterine muscle become somewhat tense.
b. Moderate: uterine muscle b become moderately firm.
C-Strong: the uterus become so firm that it has the feel of woods harness and high contraction.
* Interval(rest) between contraction 10-15 min (1st stage)
2-3 min (2nd stage)



Artificial rupture of membrane (A.R.M.) OR Amniotomy used to induced labor in the beginning of the 2nd stage of labor .



Distinguishing between True and False labor:

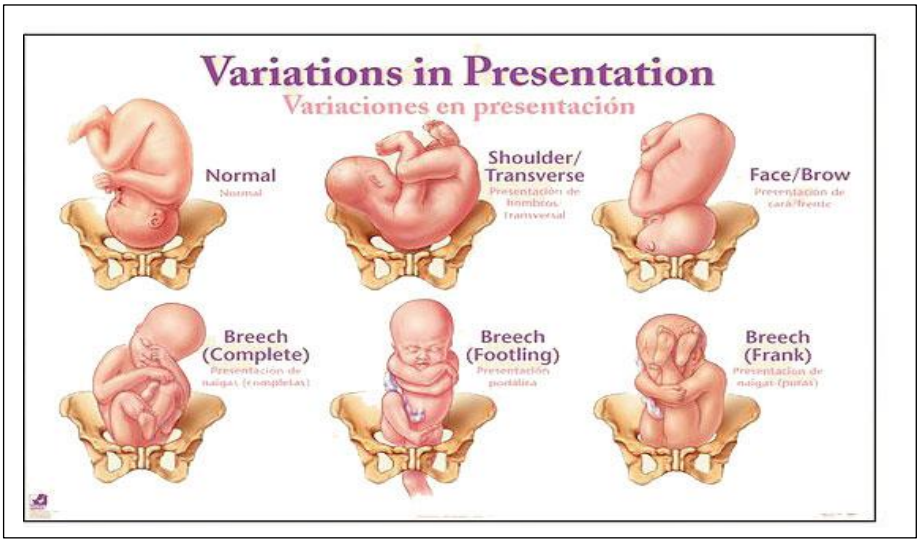
True labor	False labor
1. Contractions regular	1. Irregular contractions.
2. Back discomfort that spread to the abdomen.	2. Discomfort that is localize in the abdomen.
3. Progressive cervical dilatation and effacement.	3. No cervical change.
4. Gradually shortened intervals between contraction.	4. No changes or irregular changes
5. Increase intensity of contractions with ambulation.	5. No changes in contractions with ambulation.
6. Contraction increase in duration and intensity.	6. Usually no changes in contract.
7. Show usually present	7. None

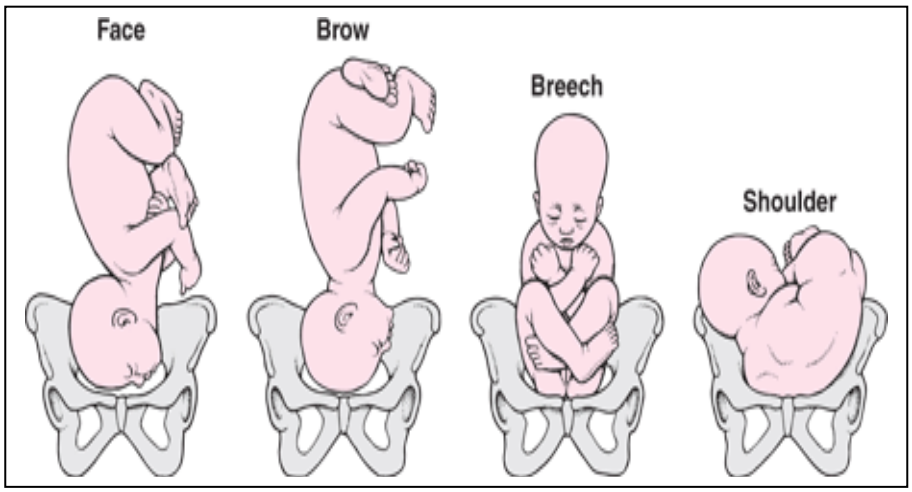
Presentation and type of abnormal Presentation

Presentation: - It is part that is felt by the examiner's hand when doing the vaginal examination .

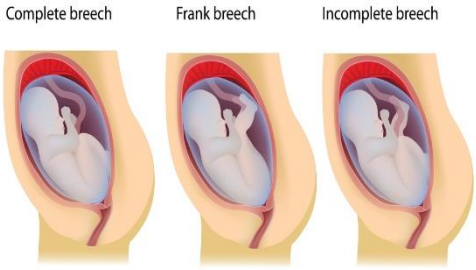
Types

1.Fetal head or cephalic presentation (brown -vertex –face)
Most common 97 %



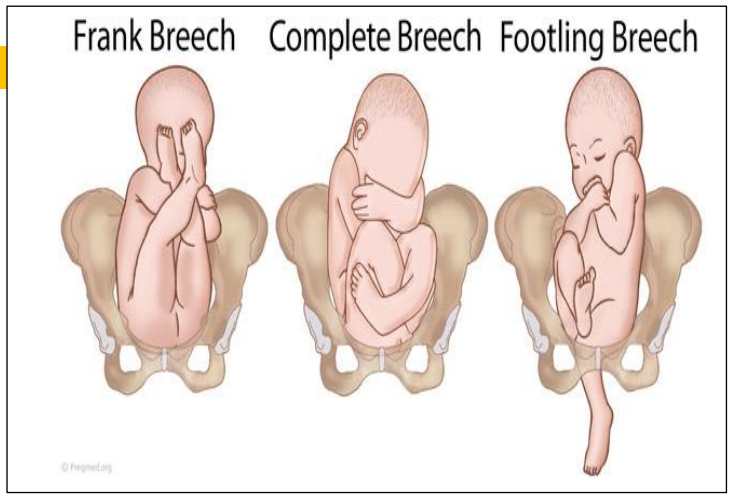


2-Shoulder presentation .

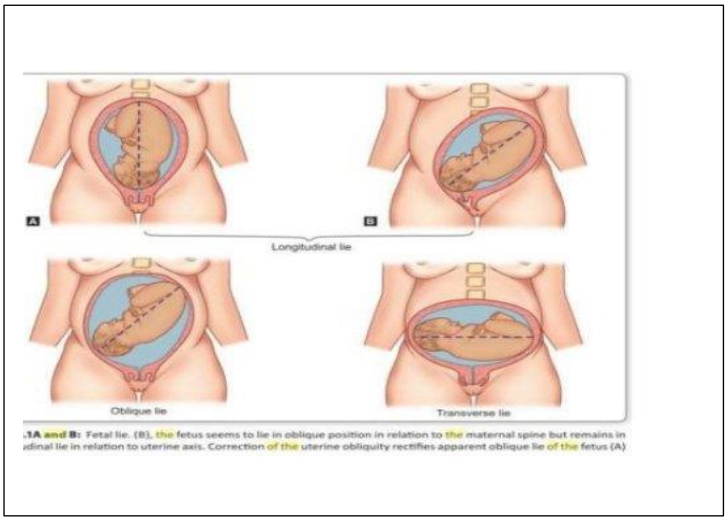


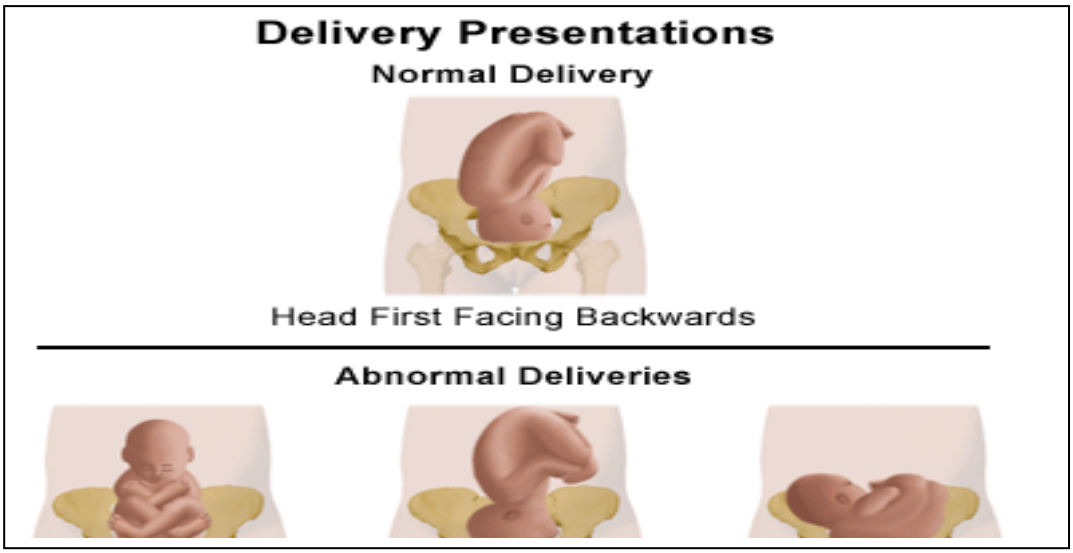
3- presentation 3 %(breech)

a-complete breech
b-frank breech
c-incomplete breech



Positions
1-Longitudinal lie .
2-Transverse lie .
3-Oblique lie .





Causes of abnormal presentation

1-Unknown .
2-Multiparity .
3-Premature labor ------ the fetus is mobile
4-Polyhydraminous ------ can move freely
5-Hydrocephalic .
6-Multiple pregnancy (Twin) .
7-Placenta previa
8-Fibroid & tumors
9-Contracted pelvis .
10- Head high not engaged

Danger of breech presentation .

For mother :-

1-perineal trauma .
2-Prolonged labor .

For baby :-

1-Intracranial hemorrhage 2-Injuries 3-Death 4-Cord prolapsed -5-Anoxia .

Induction of labor

Induction of labor : It is artificial beginning onset of labor after the period of viability .

Used for some complication associated with pregnancy such as :-

1. P.E.T.
2. DM & HD
3. Rh. Incomp .
4. Post mature
5. Primgravida over 30 yr.
6. A.P.H.

Methods of Induction

1- Administration of enema .
2- Administration of oxytocin by Iv. Drip .
3- Observe the number of drops \ min the rate of administration should be increased gradually.
4- Observe the uterine contraction .
5- FH. Counted & recorded .

Artificial rupture of membrane (A.R.M.) OR **Amniotomy** used to induced labor in the beginning of the 2nd stage of labor .

Test 2\ What is (A.R.M.) ?

Forceps Indications

1- Delay in the 2nd stage of labor .
2- Malposition of the fetus head .
3- Maternal and fetal distress .
4- Large head and post mature .
5- Severe P.E.T. & HD.

Condition which should be satisfied before the application of forceps :-

1. 1Cervix full dilated .
2. When have pelvic contraction .
3. Bladder should be empty .
4. Membrane rupture .

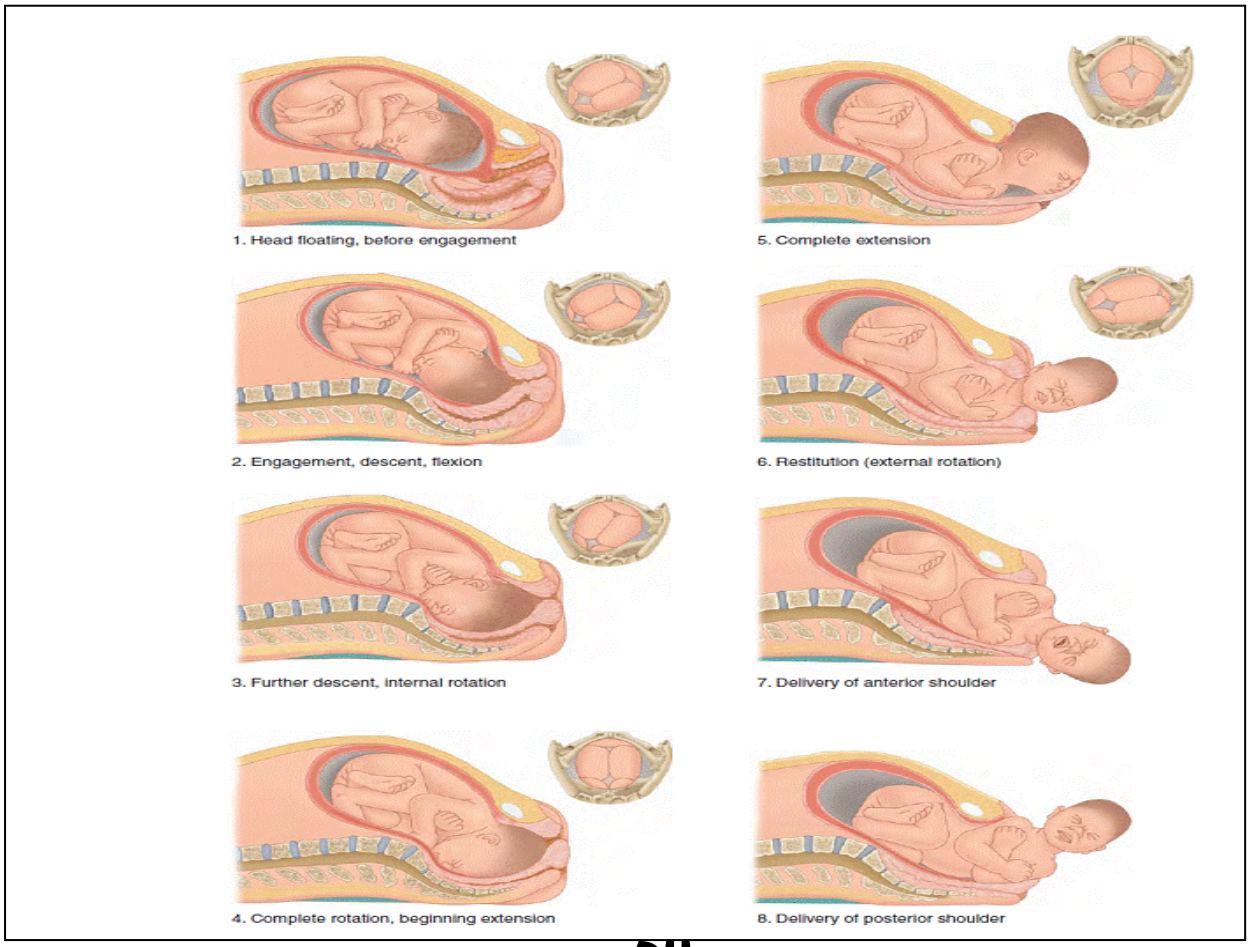
Complication of forceps

For mother ⟶ 1- damage the soft tissues of the pelvis .
2- Laceration or tear of the vagina , cervix , and perineum
3- bladder or rectum injury .
4- P.P.H.
5- Incontinence of urine

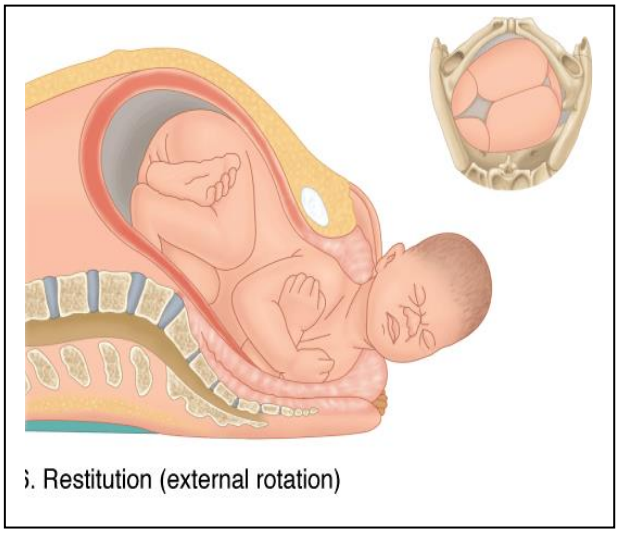
For fetus ⟶ 1- Intracranial hemorrhage .
2- Injuries .
3- Facial palsy .

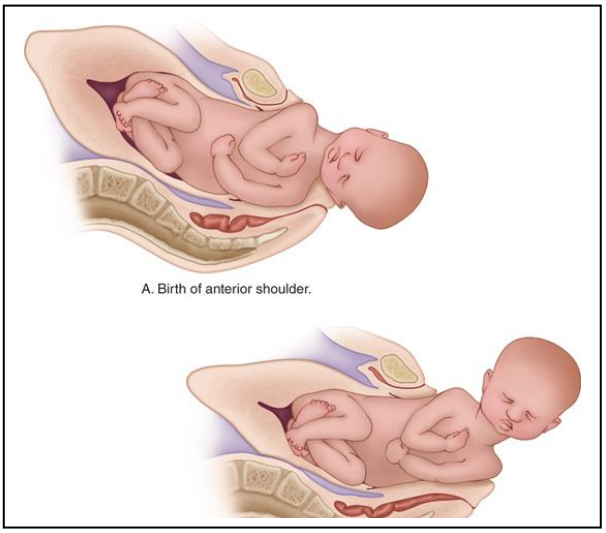
Mechanism of delivery of the baby

There are seven classical steps in the normal mechanism of labor. They are:
1-Engagment.the fetus head is engaged when the biparital passes the pelvic inlet
1-Descent.movementof the presenting part through the pelvic
2-Flexion.the head flexes
3-Internal rotation of the head to pass through the ischial spines
4-Extension.extention of the head as it pass under the symphysis pubis

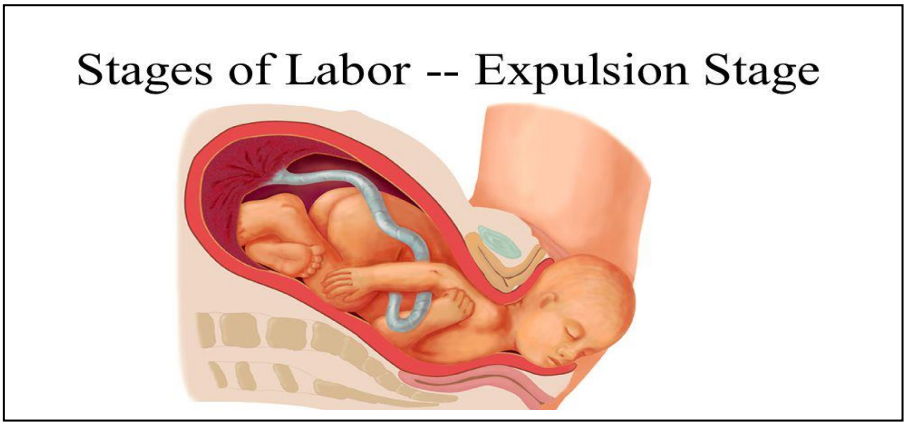


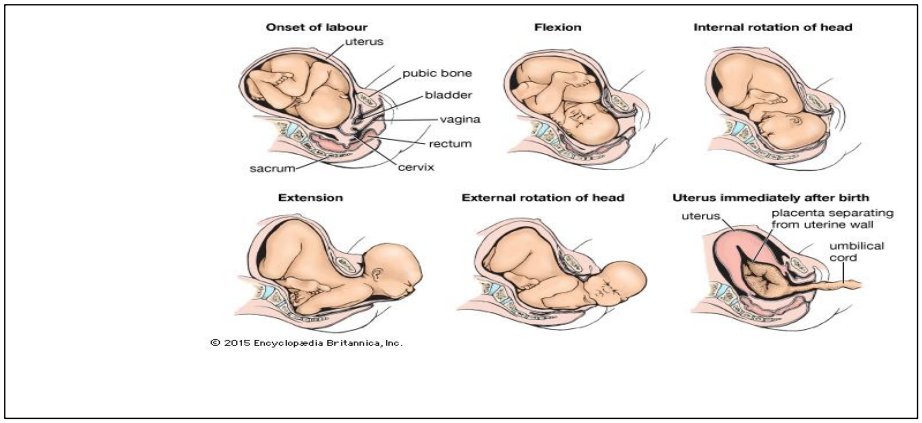
5-External Rotation: the head rotated and the shoulder to the position in the pelvic





6-Expulsion of the baby





Stages of labor

The process of labor divided into

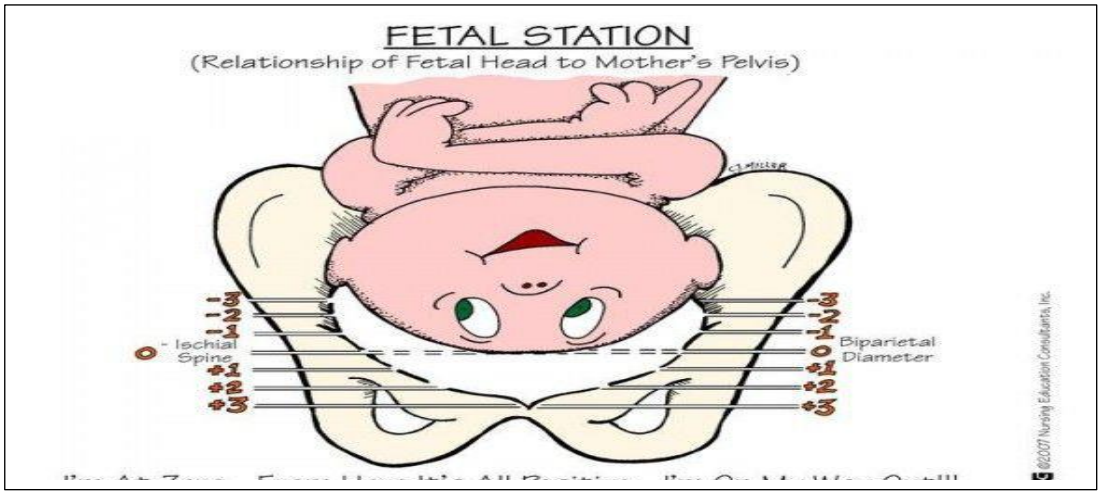
First stage :- Is measured from the onset of true labor to complete dilatation of the cervix (dilating stage) .

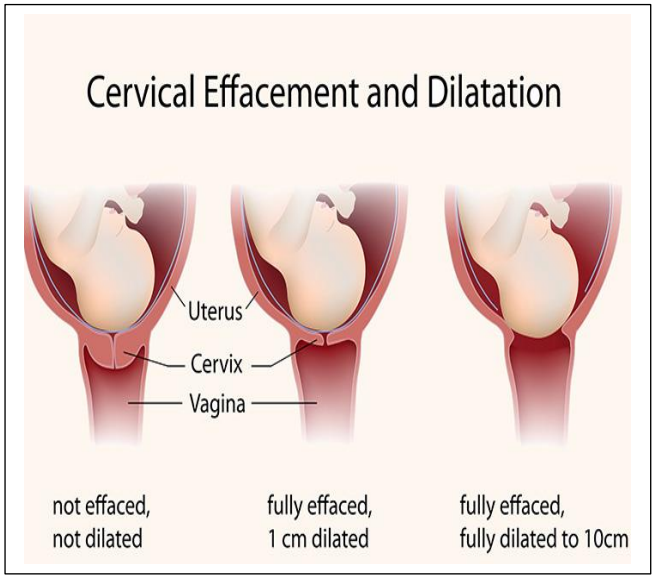
This stage divided in to 3 phases :-

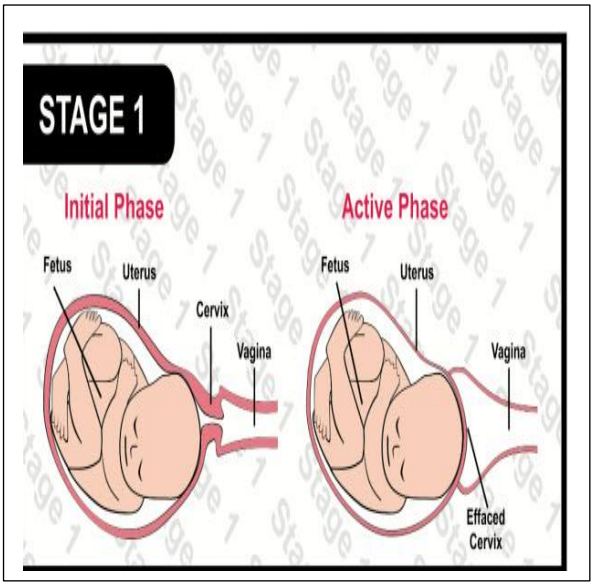
1.Latent phase 0-3 cm D.

2.Active phase 4-7 cm D.

3.Transitional phase 8-10 D.





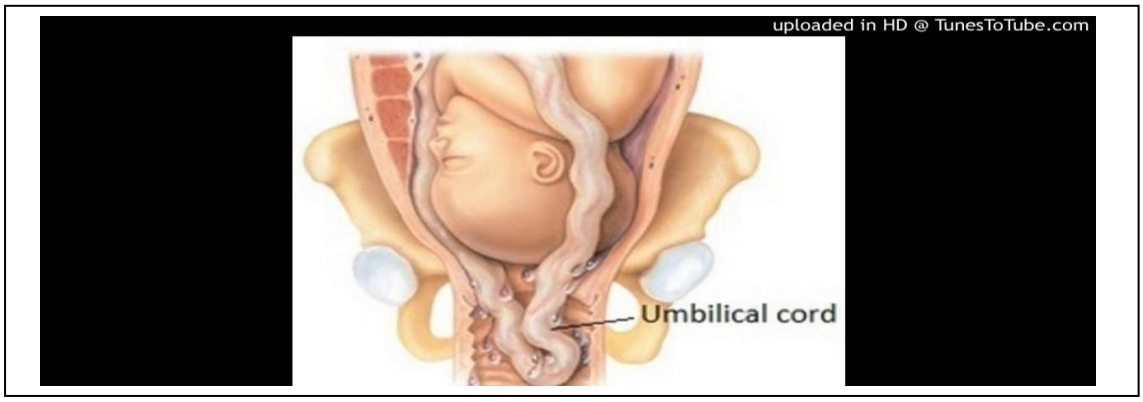


Nursing care during 1st stage of labor

•Taking information .
•Do physical and obstetrical examination .
•Check vital signs and FHR .
•Do urine and blood test .
•Take advising about diet and fluid intake .
•Do perineal care .
•Checking the drops of pitocin .
•Checking uterine contraction .
•Advising about walking and warm bath .

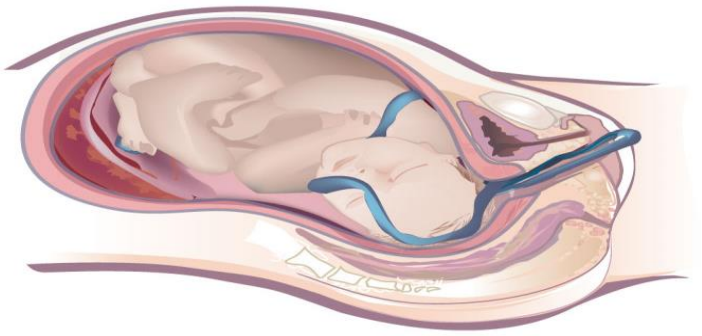
What is umbilical cord prolaps?

Umbilical cord prolaps is a complication that occurs prior to or during delivery of the baby. In a prolaps, the umbilical cord drops (prolaps) through the open cervix into the vagina ahead of the baby.



What causes an umbilical cord prolaps?

- Premature delivery of the baby
- Delivering more than one baby per pregnancy (twins, triplets, etc.)
- Excessive amniotic fluid
- Breech delivery (the baby comes through the birth canal feet first)
- An umbilical cord that is longer than usual

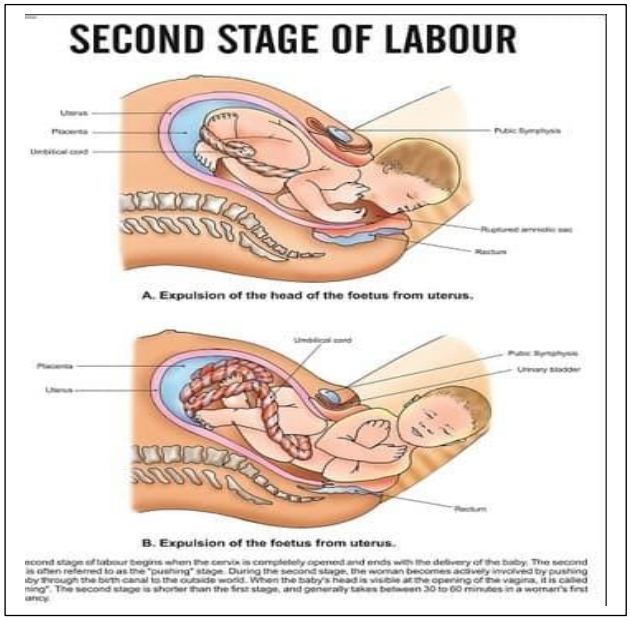


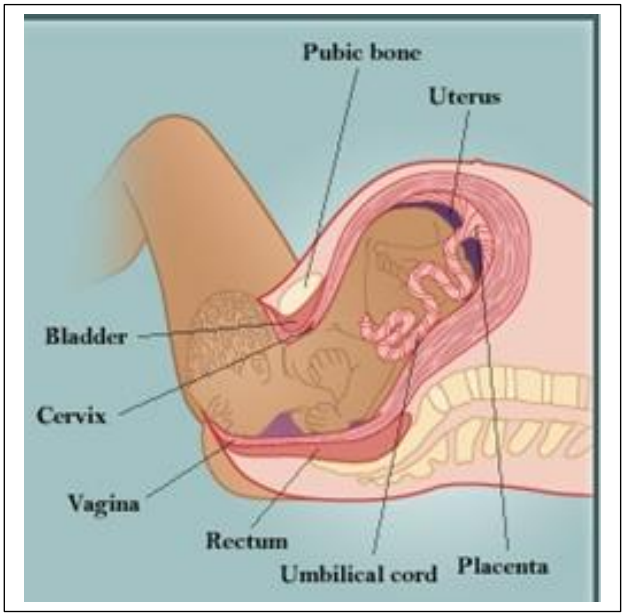
How is an umbilical cord prolapsed managed?

Because of the risk of lack of oxygen to the fetus, an umbilical cord prolapse must be dealt with immediately. If the doctor finds a prolapsed cord, he or she can move the fetus away from the cord in order to reduce the risk of oxygen loss.

In some cases, the baby will have to be delivered immediately by cesarean section. If the problem with the prolapsed cord can be solved immediately, there may be no permanent injury. However, the longer the delay, the greater the chance of problems (such as brain damage or death) for the baby.

Second stage: - It extends from full or complete dilatation of the cervix until the delivery of the baby .

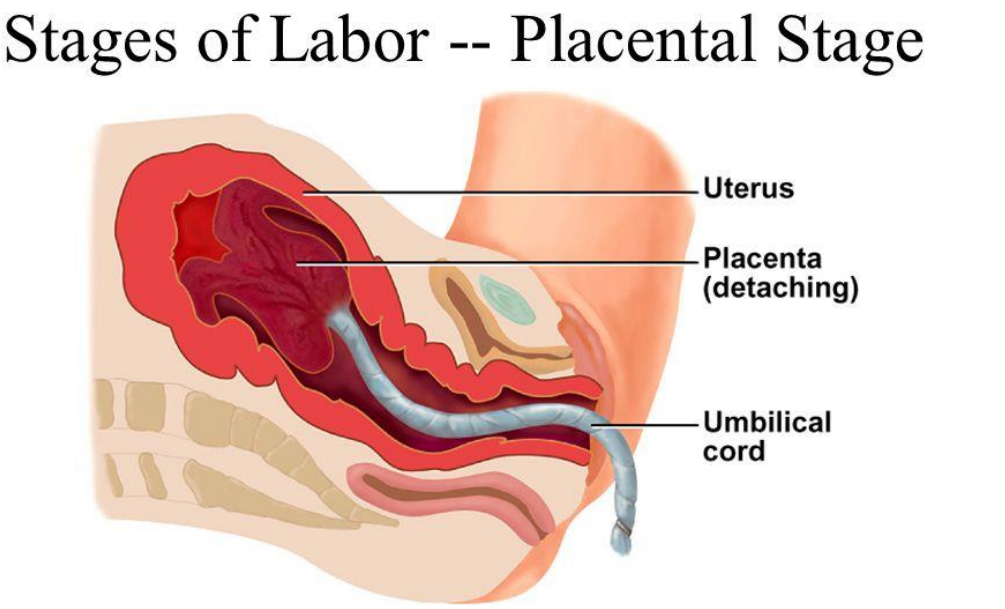




Nursing care during 2nd stage of labor

•prepare the delivery room .
-sterile equipment (cord set , episiotomy set , damps)
•Preparation the baby clothes .
•Teaching mother about deep breathing .
•Check F.H.B. every 5 / min & B \ P .
•Check cervical dilatation by vaginal examination

Third stage: -It extends from delivery the baby to expulsion of the placenta.



- Uterine contractions continue causing placental separation
  - 350 mL blood loss is normal, but postpartum hemorrhaging occurs if expulsion is not completed

Nursing Management during Third Stage of labor

Nursing care during this stage primarily focuses on immediate new born care and assist with the delivery of placenta and inspecting if for intactness .

Nursing intervention during the third stage of labor include:

1. Describing the process of placental separation to the couple.
2. Instructing the women to push when signs of separation of placenta are apparent which include:

a. Firmly contracting uterus.

b. Change in uterine shape from discoid to globular ovoid.

c. Sudden gush of dark blood from vaginal opening.

d. Lengthening of umbilical cord protruding from vagina

3. Administering an oxytocin in ordered and indicated after placental expulsion.

4. Providing support and information about episiotomy and / or laceration.

5. Cleaning and assisting client into a comfortable position after birth.

6. Providing a warmth by replacing warmed blankets over the woman.

7. Applying an ice pack to the perineal area to provide comfort to episiotomy in indicated.

8. Monitoring maternal physical status by assessing:

a. Vaginal bleeding : amount , consistency and color.

b. Vital signs: blood pressure, pulse , and respirations taken every 14 minutes.

c. Uterine fundus, which should be firm , in the midline , and at the level of the umbilicus.

9. Documenting birthing event and care giver's signature.

4- Fourth stage:

1. The fourth stage is the first 2 hours after delivery.

2. The primary focus or activity is promotion of maternal neonatal bonding.

Approximate length of time for each stage

	1st stage	2nd stage	3rd stage
Primi gravida	12-14 hr	1/2-1 1/2 hr	5-15 min
Multi gravida	6-12 hr	5-30 min	5-15 min

Fourth stage: - Is the first hours after delivery of placenta

post partum care

•**See the uterus :** well contracted In the midline at the level of umbilical .If not so doing massage but gently to avoid bleeding and give methargin or pitocin by injection.

•**See the laceration :** Check the vagina or birth canal of the blood is cloth it's from uterus , if fresh that mean the blood from vagina

•Perineal care

The purpose

1-To prevent infection .

2-For mother comfort .

3-To promote healing .

Nursing care

•Cover the women and keep her warm .

•Check vital signs .

•Take warm fluid and rest .

Vaginal Examination:

Procedure of examination

A vaginal examination in labor is a systematic examination, and the following should be assessed:

1. Vulva and vagina.
2. Cervix.
3. Membranes.
4. Liquor.
5. Presenting part.
6. Pelvis.

Always examine the abdomen before performing a vaginal examination

. Measuring cervical length

The cervix becomes progressively shorter in early labour. The length of the cervix is measured by assessing the length of the endocervical canal.

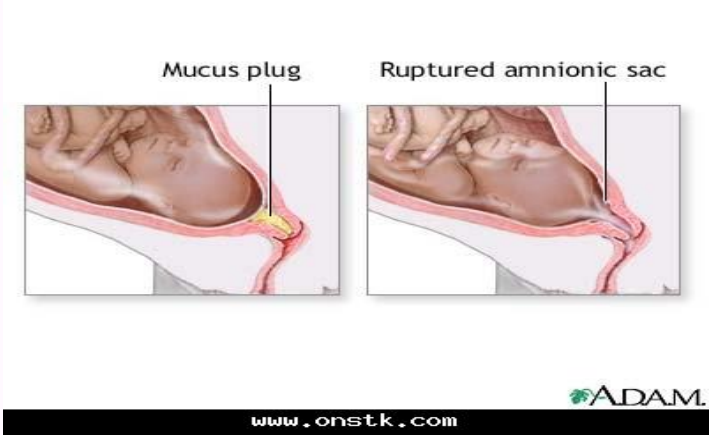
. Dilatation

Dilatation must be assessed in centimetres, and is best measured by comparing the degree of separation of the fingers on vaginal examination.

The membranes and liquor

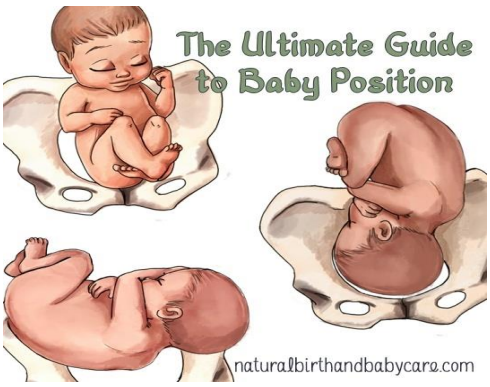
Assessment of the membranes :Rupture of the membranes may be obvious if there is liquor draining. However, one should always feel for the presence of membranes overlying the presenting part.

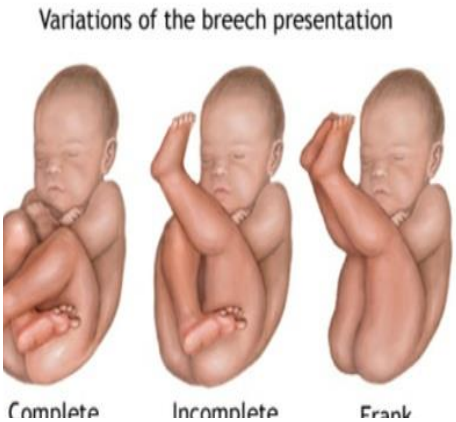
The presence of meconium may change the management of the patient as it indicates that fetal distress has been and may still be present.



. Assessing the presenting part

The presenting part is usually the head but may be the breech, the arm, or the shoulder.





1. If the anterior fontanels can be easily felt, the head is deflexed and the presenting part the vault.
2. **Features of a face presentation**. On abdominal examination the presenting part is the head. However, on vaginal examination:

Determining the position of the presenting part

Position means the relationship of a fixed point on the presenting part (i.e. the point of reference or the denominator) to the symphysis pubis of the mother's pelvis. The position is determined on vaginal examination.

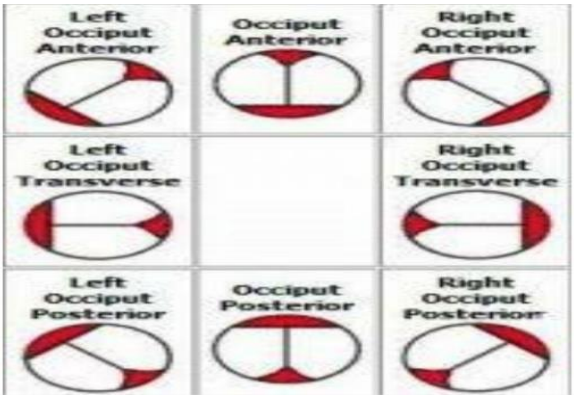
1. In a vertex presentation the point of reference is the posterior fontanels (i.e. the occiput).
2. In a face presentation the point of reference is the chin (i.e. the mentum).

In a breech presentation the point of reference is the sacrum of the fetus.

. Determining the descent and engagement of the head

The descent and engagement of the head is assessed on abdominal and not on vaginal examination.

Moulding is the overlapping of the fetal skull bones at a suture which may occur during labour due to the head being compressed as it passes through the pelvis of the mother.



. The diagnosis of moulding

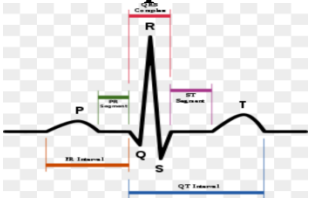
In a cephalic (head) presentation, moulding is diagnosed by feeling the overlap of the sutures of the skull on vaginal examination, and assessing whether or not the overlap can be reduced (corrected) by pressing gently with the examining finger.

The degree of moulding is assessed according to the following scale:
0 = Normal separation of the bones with open sutures.
1+ = Bones touching each other.
2+ = Bones overlapping, but can be separated with gentle digital pressure.
3+ = Bones overlapping, but cannot be separated with gentle digital pressure.
(3+ is regarded as severe moulding.)

Assessing the pelvis
When assessing the pelvis, the size and shape of the pelvic inlet, the mid-pelvis, and the pelvic outlet must be determined.

1. To assess the size of the pelvic inlet, the sacral promontory and the retropubic area are palpated.
2. To assess the size of the mid-pelvis, the curve of the sacrum, the sacrospinous ligaments and the ischial spines are palpated.
3. To assess the size of the pelvic outlet, the subpubic angle, intertuberous diameter and mobility of the coccyx are determined.

1. ***Step 1.*** **Fetal Heart Rate Monitoring During Labour**

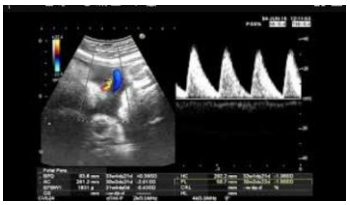


Fetal heart rate monitoring :is the process of checking the condition of the ***fetus*** during labor and delivery by monitoring the fetus's heart rate with special equipment.

types of monitoring

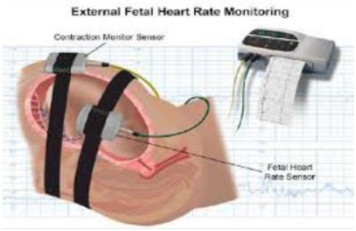
1- Auscultation; is a method of periodically listening to the fetal heartbeat.

2-Electronic fetal monitoring is a procedure in which instruments are used to continuously record the heartbeat of the fetus and the contractions of the woman's uterus during labor.



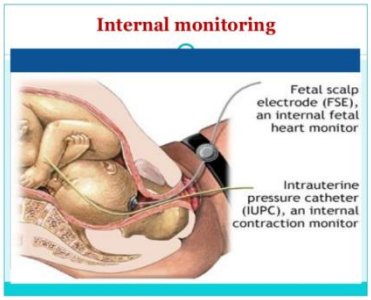
Electronic fetal monitori na may need to staythe pregnante in ; l onitoring, but she can move aroun n:

How is external monitoring performed



With this method, a pair of belts is wrapped around the abdomen. One belt uses Doppler to detect the fetal heart rate. The other belt measures the length of contractions and the time between them.

How is internal monitoring performed?



Glossary

Amniotic Sac: Fluid-filled sac in the mother's uterus in which the fetus develops.

Auscultation: A method of listening to internal organs, such as the fetal heart during labor.

Cervix: The lower, narrow end of the uterus at the top of the vagina.

Cesarean Birth: Birth of a baby through incisions made in the mother's abdomen and uterus.

Doppler Transducer: A device that uses sound waves to reflect motion—such as the fetal heartbeat—in the form of signals that can be heard.
Electrode: A small wire that is attached to the scalp of the fetus to monitor the heart rate.
Electronic Fetal Monitoring (EFM): A method in which electronic instruments are used to record the heartbeat of the fetus and contractions of the mother's uterus.
Fetus: The stage of prenatal development that starts 8 weeks after fertilization and lasts until the end of pregnancy.
Forceps: Special instruments placed around the baby's head to help guide it out of the birth canal during delivery.
Obstetrician–Gynecologist (Ob-Gyn): A physician with special skills, training, and education in women's health.
Vacuum-Assisted Delivery: The use of a special instrument attached to the baby's head to help guide it out of the birth canal during delivery.
The normal FHR tracing include baseline rate between 110-160 beats per minute (bpm), presence of accelerations and no decelerations.

Partograph

A partograph is a graphical record of the observations made of a woman in labour

Objectives

1.Early detection of abnormal progress of a labour

2.Prevention of prolonged labour

3.Recognize cephalopelvic disproportion long before obstructed labour

4.Assist in early decision on transfer , augmentation , or termination of labour

5. Increase the quality and regularity of all observations of mother and fetus

6. Early recognition of maternal or fetal problems

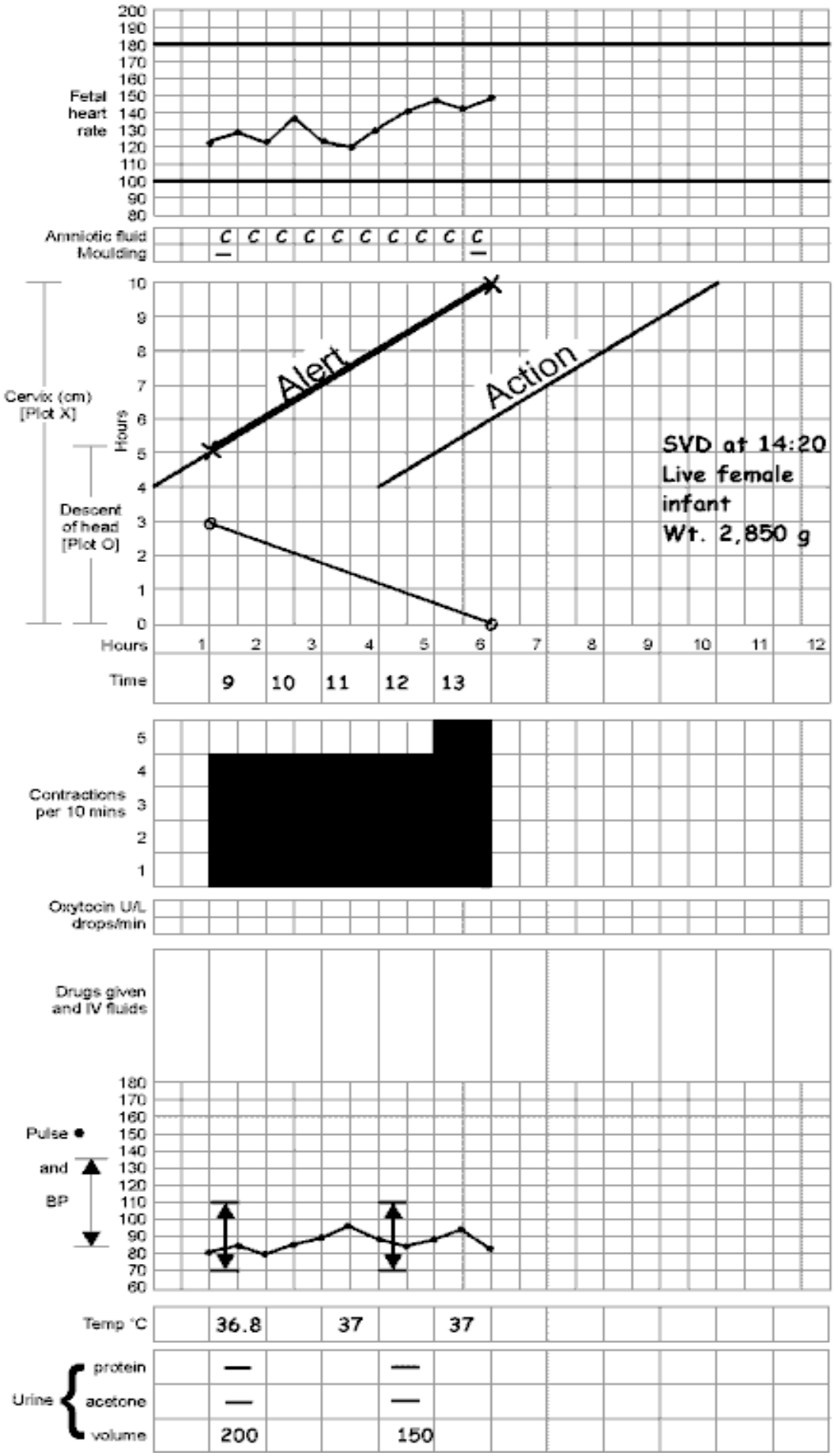
7.The partograph can be highly effective in reducing complications from prolonged labor for the mother (postpartum hemorrhage, sepsis, uterine rupture and its sequelae) and for the newborn (death, anoxia, infections, etc.).

Components of the partograph

Part 1 : fetal condition (at top)
Part 11 : progress of labour (at middle)
Part 111 : maternal condition (at bottom)

me Mrs. S Gravida 3 Para 2+0 Hospital number 7886

te of admission 12.5.2000 Time of admission 5:00 A.M. Ruptured membranes 1 hours

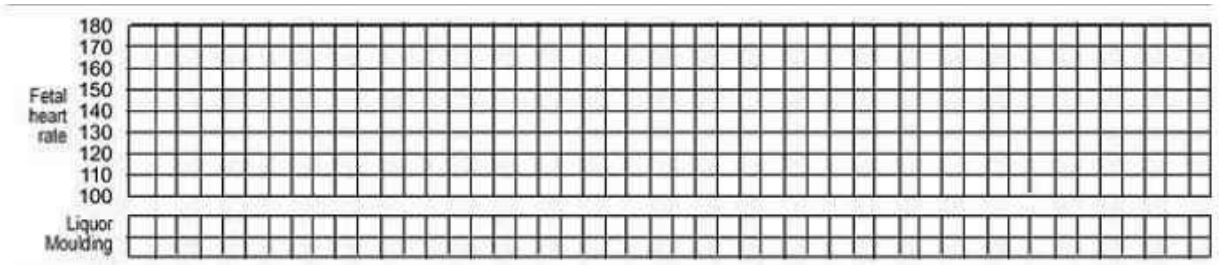


Part 1 : Fetal condition

This part of the graph is used to monitor and assess fetal condition
1 - Fetal heart rate
2 - Membranes and liquor
3 - Moulding the fetal skull bones

Fetal heart rate

Basal fetal heart rate? The baseline rate is best determined over a period of 5–10 minutes
< 150 beats/min =tachycardia
> 110 beats/min = bradycardia

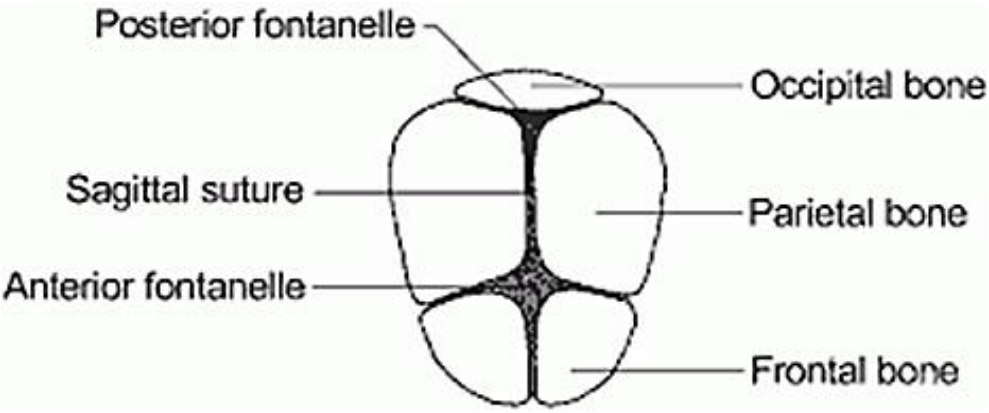


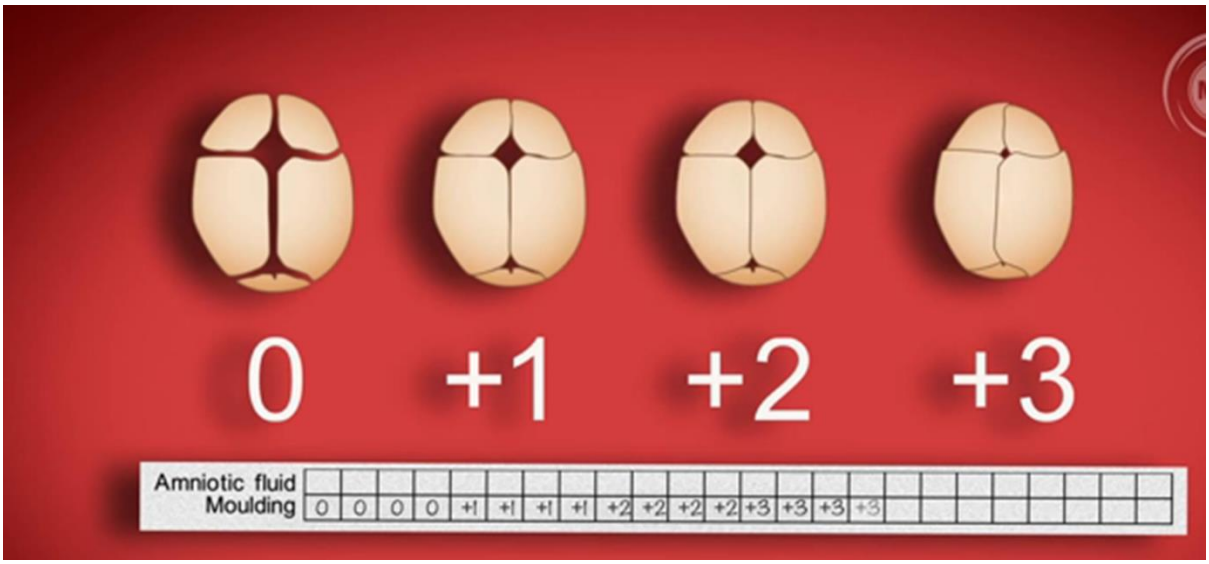
Membranes and liquor

1.Intact membranes ……...I
2.Ruptured membranes + clear liquor …….C
3.Ruptured membranes + meconium- stained liquor …M
4,Ruptured membranes + blood – stained liquor ……....B
5.Ruptured membranes + absent liquor……..A

Moulding the fetal skull bones

Moulding is an important indication of how adequately the pelvis can accommodate the fetal head
increasing moulding with the head high in the pelvis is an ominous sign of cephalopelvic disproportion
separated bones . Sutures felt easily ……O
bones just touching each other ……..+
overlapping bones (reducible) ……...++
severely overlapping bones (non – reducible) ..…..+++



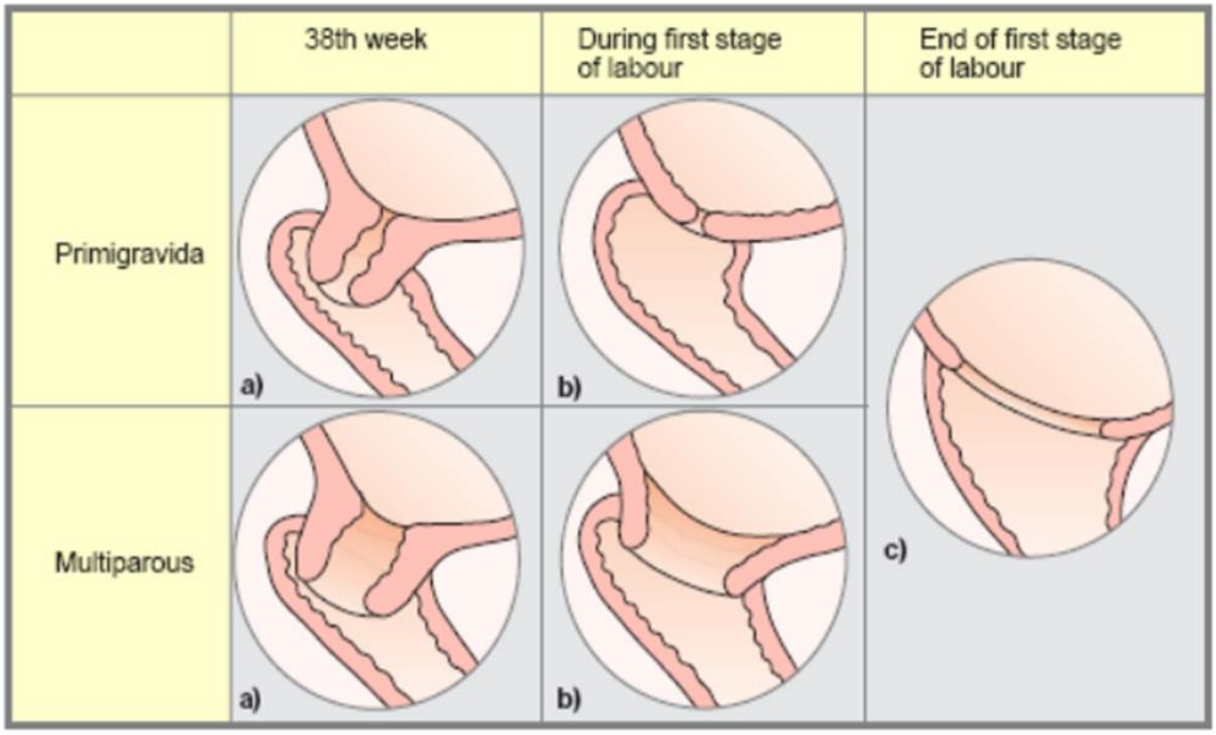


Part11 – progress of labour

1.Cervical dilatation
2.Descent of the fetal head
3.Fetal position
4.Uterine contractions
This section of the partograph has as its central feature: a graph of cervical dilatation against time

Cervical dilatation

It is the most important information and the surest way to assess progress of labour , even though other findings discovered on vaginal examination are also important
When progress of labour is normal and satisfactory , plotting of cervical dilatation remains on the alert line or to the left of it
if a woman arrives in the active phase of labour , recording of cervical dilatation starts on the alert line

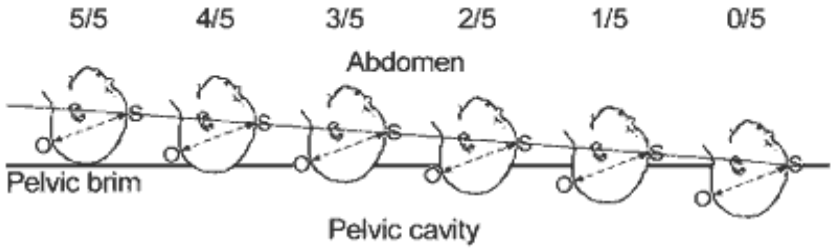


Descent of the fetal head

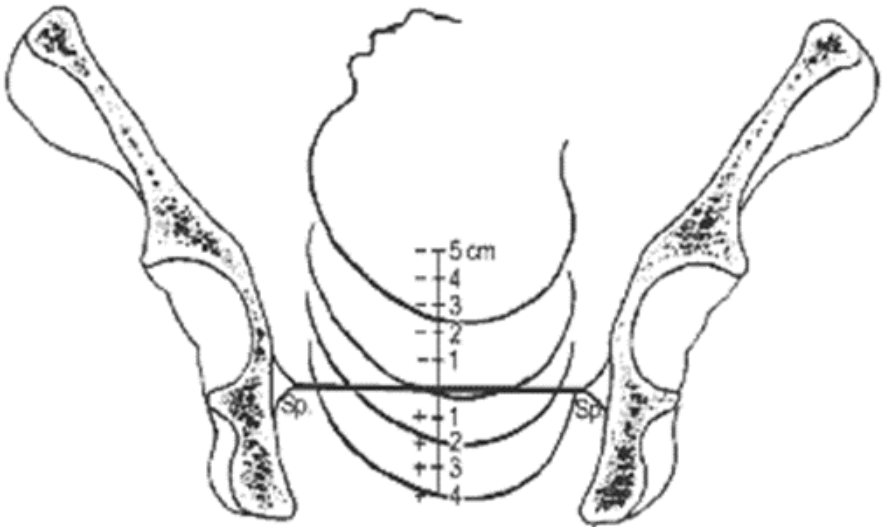
1.It should be assessed by abdominal examination immediately before doing a vaginal examination, using the rule of fifth to assess engagement

2.The rule of fifth means the palpable fifth of the fetal head felt by abdominal examination to be above the level of symphysis pubis

3.When 3/5 or less of fetal head is felt above the level of symphysis pubis , this means that the head is engaged , and by vaginal examination , the lowest part of vertex has passed or is at the level of ischial spines



Completely above	Sinciput high, Occiput easily felt	Sinciput easily felt, Occiput felt	Sinciput felt, Occiput just felt	Sinciput felt, Occiput not felt	None of head palpable



A. Head is mobile above the symphysis pubis = 5/5

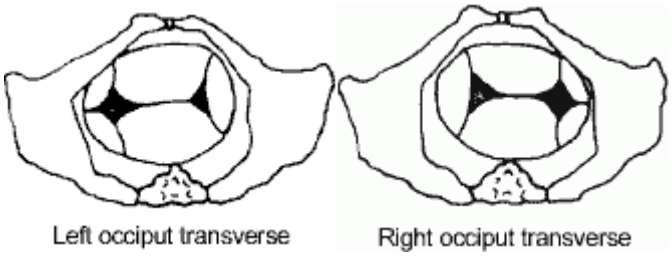
B. Head accommodates full width of five fingers above the symphysis pubis

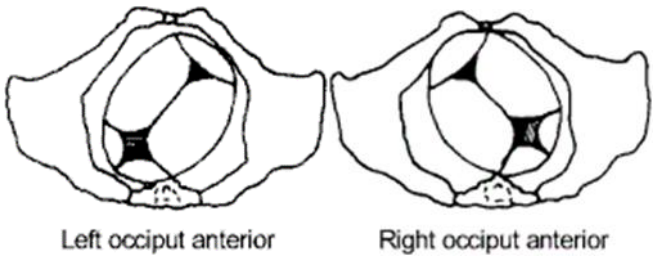
C. Head is 2/5 above symphysis pubis

D. Head accommodates two fingers above the symphysis pubis

Fetal position

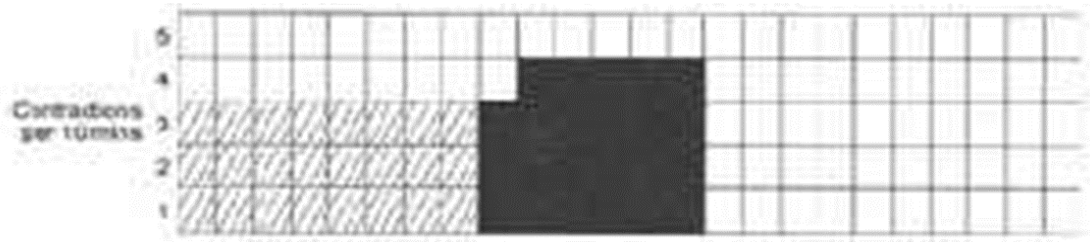
1.Occiput transverse positions
2. Occiput anterior positions





Uterine contractions

1.Observations of the contractions are made every half-hour in the active phase
2.frequency how often are they felt ?
3. Assessed by number of contractions in a 10 minutes period
4. duration how long do they last ?
5. Measured in seconds from the time the contraction is first felt abdominally , to the time the contraction phases off
6.Each square represents one contraction

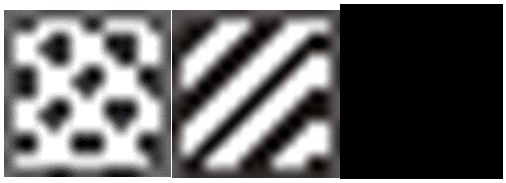


Palpate number of contraction in ten minutes and duration of each contraction in seconds

1 .Less than 20 seconds

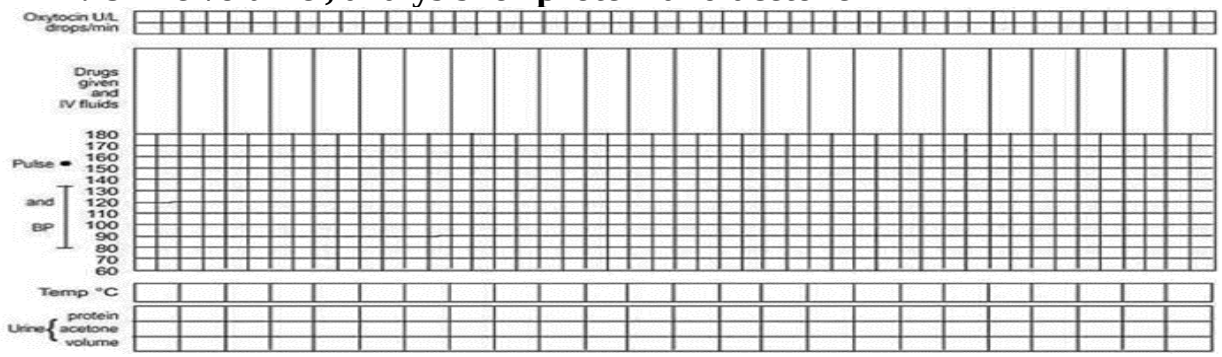
2 .Between 20 and 40 seconds

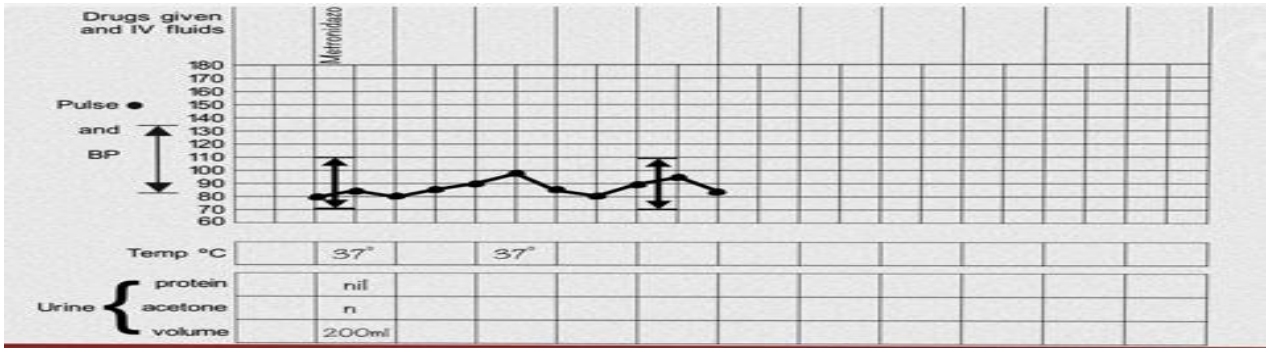
3 .More than 40 seconds



Part111: maternal condition

Assess maternal condition regularly by monitoring :
1.drugs , IV fluids , and oxytocin , if labour is augmented
2.pulse , blood pressure
3.Temperature
4. Urine volume , analysis for protein and acetone

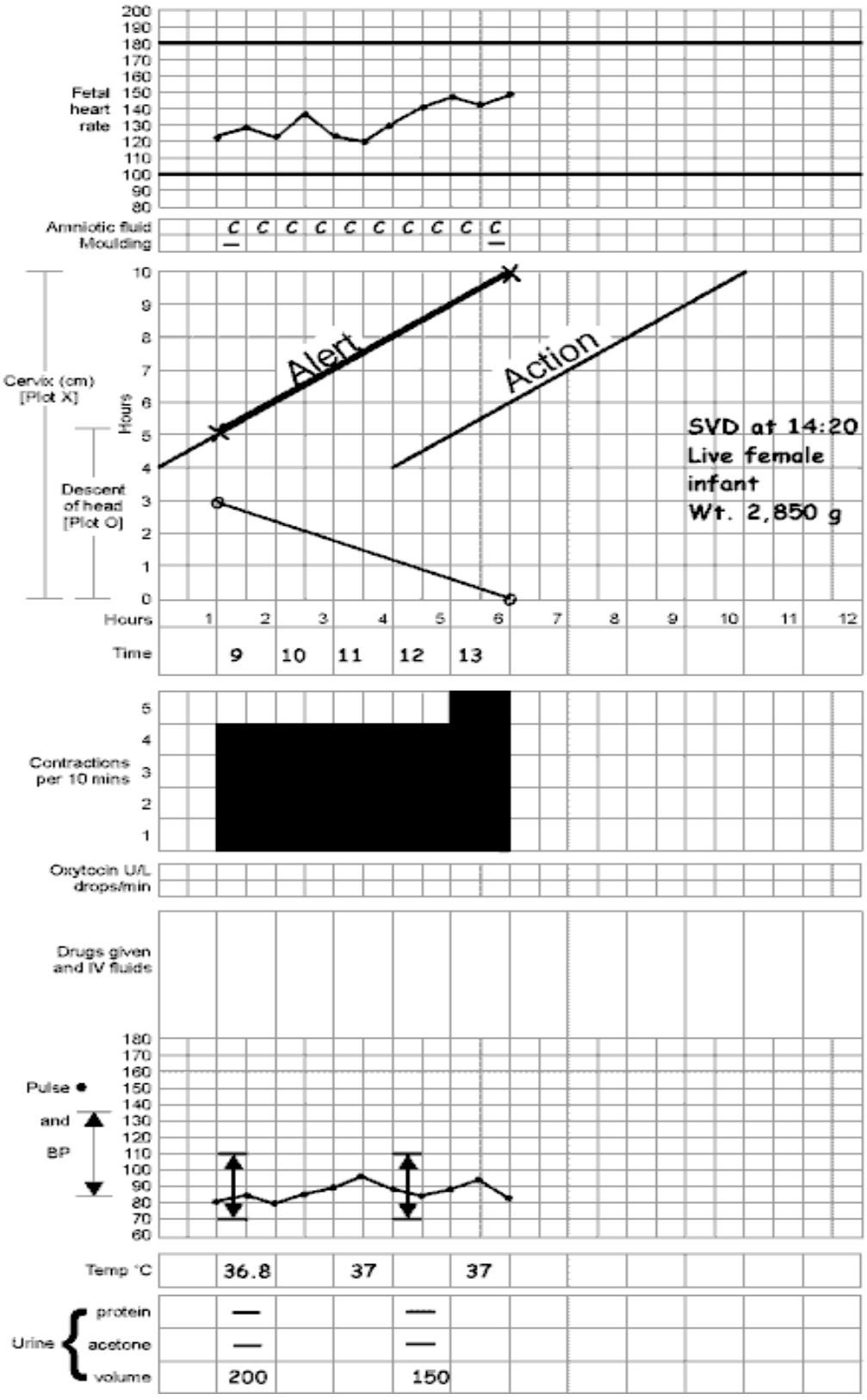




Partograph showing normal labor

Name Mrs. S Gravida 3 Para 2+0 Hospital number 7886

Date of admission 12.5.2000 Time of admission 5:00 A.M. Ruptured membranes 1 hours



Puerperium

Puerperium : The time between delivery until the reproductive organs have returned to their pre pregnant state (6 weeks) .
Involution : It is the process of returns of the uterus to its normal size .

Change in Cervix, vagina and perineum
The cervix remains soft after birth. The vagina contracts and begins to return to the size before pregnancy. For four to six weeks of the postpartum period the vagina will discharge lochia, a discharge containing blood, mucus, and uterine tissue
Lochia : It's uterine discharge consists blood with a small amount of mucous

Types

1-Lochia rubra(lasts about 3 days red in color)
2-Lochia serosa(lasts 7 days pinkish in color)
3-Lochia alba (whitecolorless)

Nursing care

1.Mother needs physical examination and palpation the fundus .
2.Perineal care (observe the color , amount and order) and teaching her about the perinealself care to promote healing) .
3.Check vital signs .
4.Advice about good diet for lactation .
5.Provide rest and sleep .
6.Early ambulation to prevent thrombosis constipation and to stimulates circulation .
7.Breast care

Immediate care of the newborn

Immediate care at birth

1) Prevention of heat loss

- Maintain delivery room temperature in the range of 23–25°C.
- Avoid cold air from a fan.
- Dry the baby at birth with pre-warmed bedding.
- Dry the head first to prevent heat loss.
- Ensure early skin-to-skin contact. This assists conductive heat transfer from mother to baby.

2) Immediate assessment

- Evaluate the condition of the newborn while simultaneously drying the infant. Is the baby breathing or crying , Is there good muscle tone ,Does the baby appear to be at term
- Provide normal care accordingly or proceed to resuscitation .

3) APGAR scoring

Used to assess baby's general condition and is taken at 1, 5, and 10 minutes after birth.

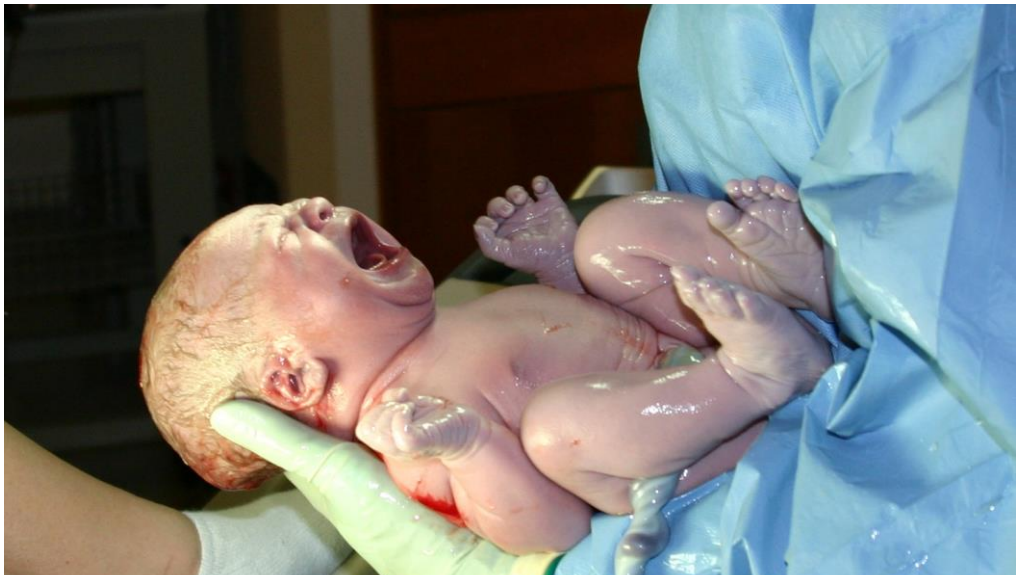
Important for further management of resuscitation but should not delay immediate steps of resuscitation, if needed

The meaning of the APGAR acronym is as follows:

A Appearance (colour)
P Pulse (heart rate)
G Grimace (response to stimuli, also called reflex irritability)
A Active (tone)
R Respirations (breathing)

Table 1 – APGAR scoring

Sign	Score		
	0	1	2
Heart rate	Absent	< 100 bpm	>100 bpm
Breathing	Absent	Gasping	Crying
Tone	Limp	Some flexion	Active
Reflex irritability	No response	Grimace	Cough, sneeze, cry
Colour	Blue or pale	Pink body, blue extremities	Completely pink



APGAR
Test Scoring

	Score 0	Score 1	Score 2
Appearance	Blue all over	Blue only at extremities	No blue coloration
Pulse	No pulse	<100 beats/min.	>100 beats/min.
Grimace	No response to stimulation	Grimace or feeble cry when stimulated	Sneezing, coughing, or pulling away when stimulated
Activity	No movement	Some movement	Active movement
Respiration	No breathing	Weak, slow, or irregular breathing	Strong cry

4) Cutting the cord

- Securely clamp the cord before cutting.
- Delay cord clamping and cutting until baby's respirations are established and cord pulsation has ceased. This ensures that baby receives a placental transfusion.

5) Initiate breastfeeding

a. Benefits for the baby

Early and exclusive breastfeeding should be encouraged within 1 hour of birth.

Baby receives immunological advantages of colostrum from early feeding.

Sucking reflex is the most intense 45 minutes through 2nd hour after birth.

Early feeding at the breast stimulates digestive system, promoting elimination of byproducts and hemoglobin breakdown.

Jaundice is most likely to occur when breastfeeding is delayed.

Baby's nutritional needs can be completely met by breast milk. No supplements are required, not even water!

Both small and big babies are at risk for hypoglycemia, and require immediate and frequent feedings.

b. Benefits for mother

Breastfeeding stimulates uterus contractibility.

Women breastfeed for a longer duration if feeding is initiated early.

Episiotomy and other methods of induction of labor

Episiotomy : It is making incision into the perineum to in large the vaginal os .

Indication:- 1- Fetal distress in the 2nd stage .
2- prolapsed cord in the 2nd stage .
3- preterm baby to avoid intracranial .
4- P.J.T. or cardiac dis .
5- Previous 3rd degree tear .

Types 1- Medo lateral .
2- Medium .

Advantages of medium

1. Less bleeding .
2. Rapid healing .
3. Less pain .

Test 1\ what are the advantages of medium epis ?

Disadvantages of medolateral

1- More bleeding .
2- Difficult healing .
3- Discomfort to mother .
4- Pain is more common .

Nursing care

1- Perineal clean .
2- Warm stiz bath .
3- Give antibiotic .
4- Good diet .

Version → Internal version (in case of shoulder P.)

→ External version

Vaccum used in case of

1- complete dilatation .
2- uterine dysfunction .
3- multi para .

Danger of version

1- Fetal distress .
2- Rupture of uterus .
3- Premature separation of placenta .

Cesarean Section (C /S)

Cesarean section : Is the removal of the baby from the uterus through an incision made in the abdominal wall and the uterus .

Indications

1- Cephalo-pelvic disproportion .
2- Previous C\S .
3- P.E.T.
4- Placenta previa (A.P.H.)
5- Fetal and mother distress .
6- Heart disease .
7- Primgravida and old mother 35 yr .
8- Prolonged labor .

Types

1- Classical C\S (transverse lie) .
2- Lower segment C\S .
3- Extra peritoneal C\S .

Advantages of L.S. C\S

1- Less blood loss .
2- Easy to repair .
3- Less area of activity .
4- Less infection .
5- More comfort to the mother .

Contraindication

1- Fetal anomalies .
2- Still birth .
3- DM .
4- Peritonitis .

Test 2\ What are the contraindication of C\S ?

Fetal presentation

Presentation :- It is part that is felt by the examiner's hand when doing the vaginal examination .

Types

1. Fetal head or cephalic presentation → brown, vertex, face
   Most common 97 %
2- presentation 3 %
3- Shoulder presentation .

Position

1- Longitudinal lie .
2- Transverse lie .
3- Oblique lie .

Causes of abnormal presentation

1- Unknown .
2- Multiparity .
3- Premature labor → the fetus is mobile
4- Polyhydraminos → can move freely

5- Hydrocephalic .
6- Multiple pregnancy (Twin) .
7- Placenta previa } prevent the head from entering the pelvic
8- Fibroid & tumors } brim
9- Contracted pelvis .
10- Head high not engaged .

Diagnosis

1- By abdominal examination
   - Palpate mass in the fundus ⟶ breech P.
   - The fundus is low ⟶ shoulder p.
2- By auscultation
   - FH. Above the level of the umbilical
   - FH. Is heard below the umbilical
3- By sonar .

Danger of breech P.

For mother :-

1- perineal trauma .
2- Prolonged labor .

For baby :-

1- Intracranial hemorrhage .
2- Anoxia .
3- Injuries .
4- Death .
5- Cord prolapsed .

Complications of labor

Dystocia or difficult labor
Involving the following problems :-

1-powers The uterine contractions may not be sufficiently strong .

management

1- give Iv. Oxytocin 0.5 with Iv. Fluid 5% glucose (induction of labor).
2- Forceps delivery when there is complete dilatation of cervix and C\S wher there is cervical dilatation slow .
3- Relieve pain by pithedin 100 mg .

2-Problems with the passage way

1- Contracted pelvis .
2- Variation in pelvic shape .
3- Cephalopelvic disproportion .

3- problem with the passenger

1- Malpresentation .
2- big baby .
3- hydrocephalus .

Hemorrhagic complications:

post partum hemorrhage P.P.H.

It is loss of more than 500 ml of blood during the first 24 hours after giving birth .

Causes

1- Uterine atony .
2- Laceration of the perineum , vagina , and cervix . } more common
3- Retained placenta .
4- Rupture of the uterus . } less common
5- Inversion of the uterus .

1-Uterine atony It is relaxation of uterine muscle after labor .

Treatment and nursing care

1- Grasp the uterus and massage it .
2- Avoid over massage of the uterus to prevent muscle fatigue .
3- Check the size and high of uterus frequently .
4- Empty the bladder .
5- Check vital signs every 5-15 \min

6- Give ergomaterine .
7- Blood transfusion as needed .
8- Treat the shock .
9- Hysterectomy .

2- Lacerations bright red arterial bleeding in the presence of a hard and firmly contracted uterus .

Treatment :- After determination the location of source of bleeding and repairs the laceration .

3- Retained placenta

1- Treat shock .
2- Remove the placenta manually .

4- Inversion The uterus turns out side after the birth of baby .

Causes

1- Uterine atony .
2- Pressure on the fundus .
3- Pulling the umbilical cord or placenta .

Treatment

1- Treat shock
2- Repositioning the uterus manually .

5- Rupture of uterus

Causes

1- Weak C\S scar or other operation .
2- Traumatic delivery such as forceps .
3- Over dose of oxytocin .
4- Commonly in multipara .
5- Abnormal presentation .

Treatment

1- Treat shock .
2- Blood transfusion .
3- Give sedative & antibiotic .
4- Hysterectomy .

Post partum period

Puerperium The time between delivery until the reproductive organs have returned to their pre pregnant state (6 weeks) .

Involution

It is the process of returns of the uterus to it's normal size .

Test 1\ Define involution

Lochia It's uterine discharge consists blood with a small amount of mucous .

Types

1- Lochia rubra ⟶ (lasts about 3 days red in color)
2- Lochia serosa ⟶ (lasts 7 days pinkish in color)
3- Lochia alba ⟶ (colorless)

Test 2\ What are the types of lochia ?

Nursing care

1. Mother needs physical examination and palpation the fundus .
2. Perineal care (observe the color , amount and order) and teaching her about the perineal self care to promote healing) .
3. Check vital signs .
4. Advice about good diet for lactation .
5. Provide rest and sleep .
6. Early ambulation to prevent thrombosis constipation and to stimulates circulation .
7. Breast care .

Puerperal complication

Puerperal infection:- Is an infection of genital treat by organisms occurring during labor or puerperium .

Predisposing factors

1. Anemia .
2. Prolonged labor .
3. Hemorrhage more than 1000 cc .
4. Retained placenta .

Test 1\ Define the puerperal infection

Signs and symptoms fever , tachycardia , pain , ↑ pulse rate over 120/min

Nursing care and prevention

1. Good general hygiene .
2. Avoid tub bath .
3. Protect the women from communicable disease .
4. used a septic technique in delivery room .
5. Episiotomy and laceration should be checked twice daily .
6. Perineal care .
7. Give antibiotic according to the C&S .
8. Give sedative to reduce pain .
9. Check vital signs every 4\hr .

Endometritis It is localized infection of the uterus .
Signs & symptoms fever 38 c , rapid pulse , headache , chilling , and loss of appetite .

Test 2\ Define endometetritis ?

Treatment and nursing care

1. Give antibiotic .
2. Give good diet with iron , vitamin and protein .
3. Give sedative to relieve pain & fever .
4. Isolation .
5. Sleep and rest .

3- Thrombophlebitis It is an infection of the vascular endothelium
Signs and symptoms fever , pain , edema , redness , chill .

Nursing care and treatment

1- Bed rest and elevate the bed .
2- Give sedative to relieve pain .
3- Give heparin to prevent cloth formation .

Incontinence of urine Dribbling of urine during coughing and sneezing .

Test 3 \ What are the nursing care and treatment of thrombophlebitis ?

Breast feeding problems

Types of nipple

1- Depressed nipple .
2- Flat nipple .

Nursing care : mother needs daily exercise of the breast .

1- Engorgement milk build up in the breast and cause edema .

Signs and symptoms fever , pain , breast are full , heavy and hard .
Nursing care :

1. Check the position of the baby .
2. The baby should feed on demand .
3. Give sedative to relieve pain .

2- mastitis :- Is inflammation of the breast occur due to :-

1. Position not well .
2. Not feed him on demand .

Test 1 \ Explain the nursing care of breast engorgement ?

Signs and symptoms : painful ,warm and tender , chills and fever , redness .

Treatment and nursing care

1- Feed your baby in the effected side .
2- Put the baby on right position .
3- Try expressing milk by breast pump .
4- Take hot fluid and eat well .
5- Give antibiotic and sedative .

3- breast abscess

Signs and symptoms :-

1- Discharge of pus .
2- Fever with chills .
3- Breast swelling .
4- Painful .
5- Redness .

If mastitis not treated ⟶ abscess ⟶ nipple damage ⟶ infection entering breast so will need surgery and put drainage under G.A.

Prevention put the baby on right position .

Position of baby on breast need three things :

1- Mother posture .
2- How mother hold the baby .
3- How the baby take the breast .

Test 2 \ what are the signs and symptoms of breast abscess ?

Prolapsed of uterus

Causes :-

1- Multi para
2- Trauma during child birth .
3- Constipation .
4- Industrial work .
5- Used forceps in labor .
6- Chronic cough .
7- Congenital weakness of pelvic muscle .

Uterine prolapsed divided to

1st degree ⟶ cervix still inside vagina .
2nd degree ⟶ cervix appears outside .
3rd degree ⟶ complete prolapsed .

Test 1 \ mention the degrees of U.prolapse ?

Signs and symptoms :

Difficulty in walking .
Frequent urination .
Cystitis .
Backache .
Unable to empty the bladder .

Treatment

- Vaginal hysterectomy .
- Abdominal hysterectomy .
- Ring .

Nursing care

- Perineal care twice daily .
- Observe bleeding .
- Give Iv. fluid .
- Check vital signs .
- Give sedative .
- Catheter for urine .
- Check intake & output .
-

Cancer of uterus

- Adeno carcinoma .
- Sarcoma .
- Chorio-cacinoma .
- Polyps .

Treatment surgical treatment .

Carcinoma of cervix

Symptoms

- Irregular vaginal bleeding .
- Pain .
- Vaginal discharge .

Effect on pregnancy

- Abortion .
- Premature .
- Rupture of uterus .

Test 2 \ What are the effects of ca.cervix on pregnancy ?

Causes

- Age 45-55 yrs .
- In lower income .

Diagnosis by biopsy & radiology .

Treatment

- Chemotherapy .
- Hysterectomy .

Myoma or fibroid

Causes

- Mostly 35-45 yrs .
- Multi para .
- Hormonal effect (excessive oestrogen)

Symptoms

- Menstrual absent or heavy and prolong .
- Abdominal enlargement .
- Infertility .
- Pain .
- Anemia .
- Vaginal discharge .

Effect on pregnancy

- Sterility .
- Abortion .
- Premature labor .
- Difficult labor .
- Malposition of the fetus .

Treatment

- Myomectomy .
- Correct anemia .
- Vaginal or abdominal hysterectomy .
- Polypectomy .

Ovarian cysts → simple cysts

↘ Cystic tumor

Signs & symptoms

- Backache .
- Frequency of urination .
- Enlargement of abdomen .

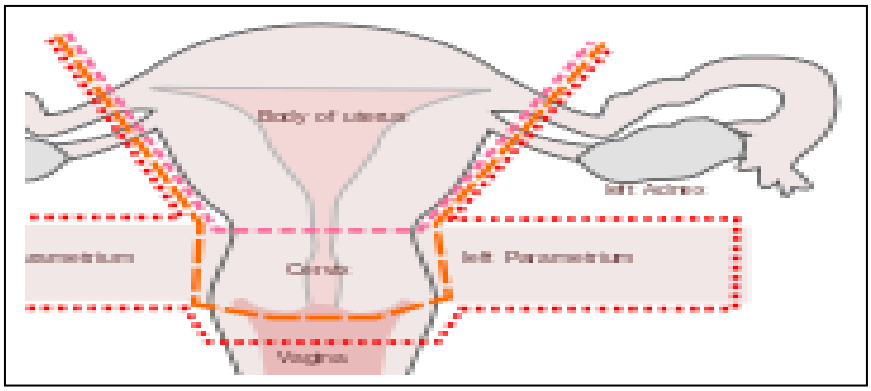
Diagnosis by sonar , laparoscopy

Treatment surgical – ovarian cystectomy or total hysterectomy .

Test 3 \ Enumerate the signs and symptoms of ovarian cyst ?

Hysterectomy

Types of hysterectomy according to extension of procedure:



1-Subtotal hysterectomy:-

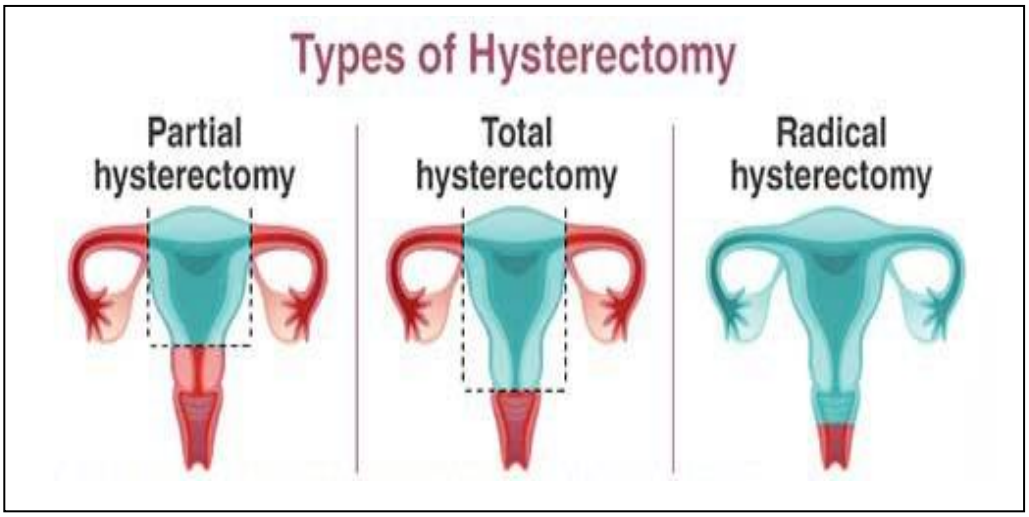
Surgical Removal of the uterus only and leave the cervix.

2-Total hysterectomy:-

Surgical Removal of the uterus and cervix.

3-Radical hysterectomy (Wertheim's operation):-

Surgical Removal of the uterus, cervix, Upper 1/3 of vagina and draining lymph node



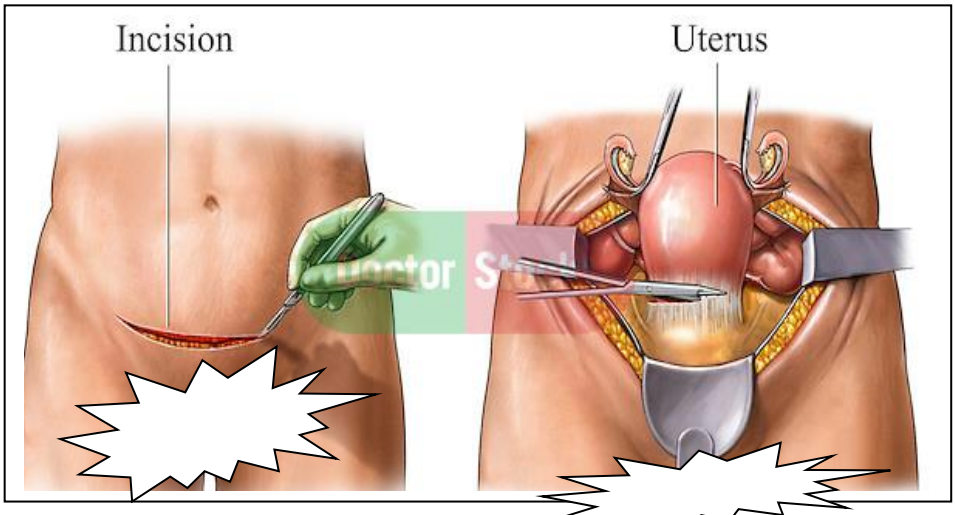
Type of hysterectomy according to approach:-

1-Abdominal hysterectomy:-

It is a removal of uterus through abdominal incision.

2-Vaginal hysterectomy:-

It is a removal of uterus through vagina.



Abdominal hysterectomy:-

Indications:-

1-malignancy of uterus, cervix, ovaries and fallopian tubes.

2-Uterine fibroid more than 14 cm in size.

3-Gross pelvic inflammatory diseases such as endometriosis.
4-When expect adhesions of bladder or bowel following previous operation

Complications:-
1-Primary and secondary hemorrhage.
2-Damage to urinary bladder, ureter, or bowel.

Vaginal hysterectomy:-
-This procedure has less morbidity and post operative discomfort.
Indications:-
-2nd and 3rd degree uterine prolapse.
Complications:-
1-Hemorrhage.
2-Vault hematoma.
3-Persistant pyrexia.
4-UTI.
Post operative care:-
1-same as any operation of laparotomy.
2-observe vaginal bleeding.
3-keep urinary catheter if there is vaginal pack in case of Vaginal hysterectomy.
4-advices and instructions about intercourse (after one month) But after checking incision and vaginal vault

FAMILY PLANNING

Methods of Contraception

- Behavioral
- Hormonal
- Barrier
  - Spermicides
- Long-Term / Permanent

Behavioral Methods

- Predicting fertility: Basal Body Temperature & Calendar method
- Withdrawal/Pullout
- Abstinence**
  - The *only* 100% effective way to prevent pregnancy, STIs, HIV/AIDS

A. Basal Body Temp

- lowest temp of the body at rest
- Ovulation raises body temp ½ degree Celsious, and temp will drop if fertilization does not occur

B. Calendar

- Predicting fertility based on menstrual cycles
- Women chart previous menstrual cycles to predict the days they are fertile and infertile

C. Withdrawal/Pullout

- A pill taken orally every day at about the same time

- Notes: There are many different brands. The doctor prescribes the right pills for contraception.
  Menstrual period can occur monthly, every 3 months, or not at all.
- Access: Prescription needed
- Effectiveness: 91-99.7%

Hormonal Methods

- The Pill
- The Patch
- Vaginal Ring
- The Shot
- Implant
- IUD
- Emergency Contraception

- These methods add chemicals similar to hormones to stop the release of an egg and weaken the sperm.
- The hormones change the cervical mucus and uterine lining, slow sperm, and reduce ability of fertilized egg to implant into uterine wall.

The Pill

- A pill taken orally every day at about the same time

- Notes: There are many different brands. The doctor prescribes the right pills for contraception.
  Menstrual period can occur monthly, every 3 months, or not at all.
- Access: Prescription needed
- Effectiveness: 91-99.7%

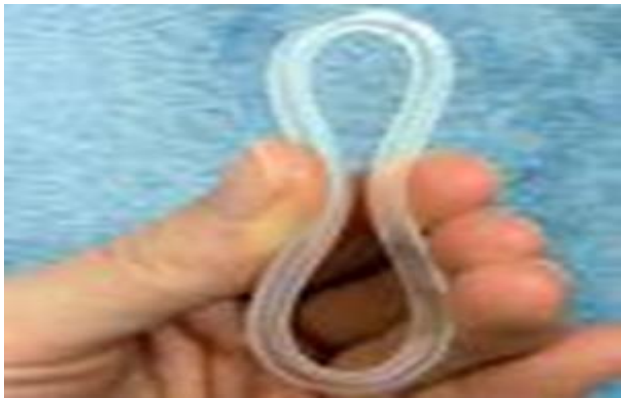
The Patch”

- A bandage-like patch that sticks to woman skin
- Changed weekly, no patch on 4th week. Hormones are absorbed through the skin
- Notes: Less effective if woman weigh over 90 Kg. May cause skin irritation.
- Access: Prescription needed
- Effectiveness: 91-99.7%

Vaginal Ring

- What? A clear, soft, flexible 2 inch circle worn in the vagina
- How? The body absorbs hormones from the ring through vaginal wall. The ring is inserted and left in the vagina for 3 weeks.

Notes: One size fits all



The Shot

- A long acting hormone injection

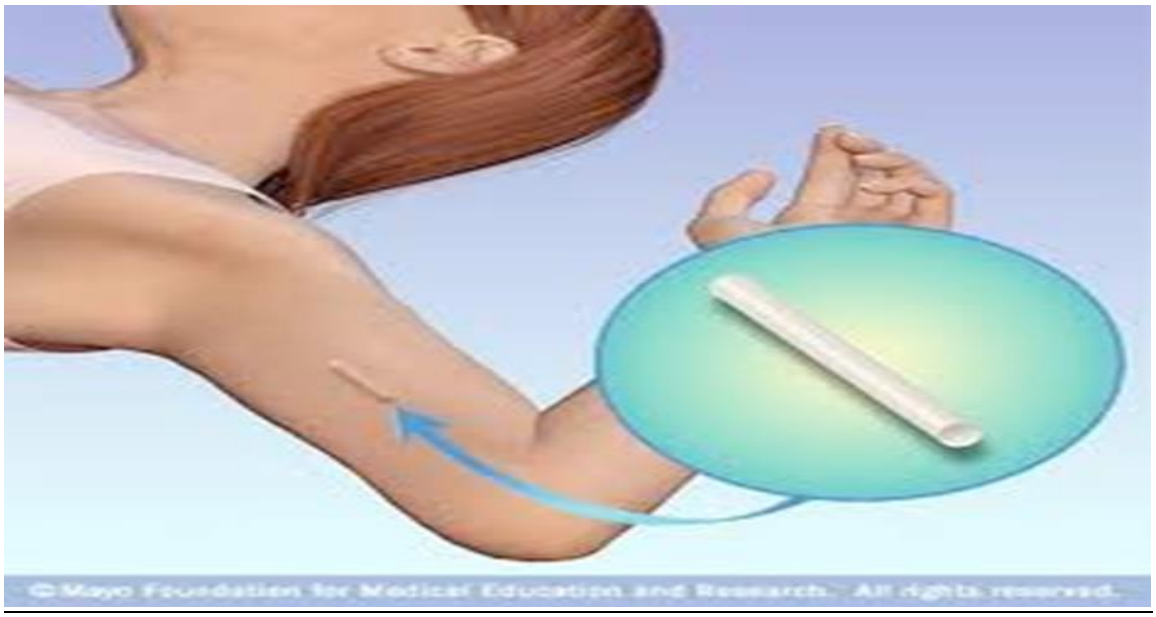
How? Female is given a shot one time every 3 months

- Notes: Not reversible- once the injection occurs, the hormones are in the woman for at least 3 months. It may take a long time to get pregnant after the shot.
- More chance of weight gain than any other method

- Access: Clinic / doctor visit needed every 3 months

The Implant

- A soft rod 3.8 Cm long placed under the skin in woman upper arm
- How? Slowly releases hormones into system
- Notes: Prevents pregnancy for 3 years, but can be taken out at any time
- Access: Clinic / doctor visit needed every 3 years
- Effectiveness: 99.95%



Intra Uterine Device (IUD)

- A small plastic "T" with a string inserted into the uterus
- How? Releases synthetic progestin hormone that changes cervical mucus, fallopian tubes and the uterine lining. Stops or slows sperm and egg
- Notes: Lasts 5 years. IUD Copper (10 years). Insertion can cause a few minutes of pain, but removal is fast and easy
- Access: Clinic / doctor visit needed for insertion & removal
- Effectiveness: 99.8%

Emergency Contraception Pills

- A pill or combination of pills taken *after* sex to prevent pregnancy
- Contains a higher dosage of the same hormones found in regular birth control
- Notes: Won't stop an existing pregnancy
- Access: Available at pharmacy
- Effectiveness: Approx 95% if taken within first 24 hours of unprotected sex

Barrier Methods

- Male condom
- Female condom

Male Condom

- A thin covering that open over an erect penis. Made of latex, polyurethane, or animal membrane (don't protect against STIs).
- How? Put on before any genital contact.
- Notes: May decrease the sensation for men. Access: Easy to buy in a store or online. Inexpensive. Usually offered for free at a health clinic.
- Effectiveness: 82-98%

Female Condom

- A soft, loose pouch that is inserted in the vagina. Flexible rings at each end hold it in place. Can be put in up to 8 hours before sex.
- How? Insert the small ring in vagina, large ring stays outside partially covering labia.
- Notes: Can be used if woman is allergic to latex (made of nitrile). Men usually feel no reduction in sensation.
- Access: Available at many pharmacies, clinics, and online
- Effectiveness: 79-95%

Long-Term / Permanent

- Female- Tubal ligation

A small incision is made in the abdomen to access the fallopian tubes.
Fallopian tubes are blocked, burned, or clipped shut to prevent the egg from traveling through the tubes
Recovery usually takes 4-6 days.

- Male- Vasectomy

A small incision is made to access the vas deferens, the tube the sperm travels from the testicle to the penis, and is sealed, tied, or cut
After a vasectomy, a male will still ejaculate, but there won't be any sperm present

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List of Abbreviation in Maternity Nursing

مختصرات طبية في تمريض النسائية

المختصر	المعنى (انكليزي)	المعنى (عربي)
E.D.D	Expected Date of Delivery	اليوم المتوقع للولادة
L.M.P	Last Menstrual Period	اخر دورة شهرية
G	Gravida	عدد مرات الحمل
P	Para	عدد مرات الولادة
A	Abortion	الاسقاط
G.P.A	Gravida. Para. Abortion	عدد مرات (الحمل، الولادة، الاسقاط)
C / S	Cesarean Section	ولادة قيصرية
IUD	Intrauterine Death	موت الجنين داخل الرحم
F.H.R	Fetal Heart Rate	معدل نبضات الجنين
H.Mole	Hydatidi form Mole	الحمل العنقودي
D&C	Dilatation & Curettage	توسع & الكشط
FM	Fetal Movement	حركة الجنين
US	Ultra Sound (Sonar)	السونار
A.P.H	Antipartum Hemorrhage	نزف خلال الولادة
P.P.H	Postpartum Hemorrhage	نزف بعد الولادة
P.P	Placenta Previa	تقدم المشيمة
V.B	Vaginal Bleeding	نزف مهبلي
A.R.M	Artificial Rupture Membrane	تمزق غشاء السائل السلي
D.V.T	Deep Venous Thrombosis	خثرة وريدية
HCG	Human Chorionic Gonadotropin	الهرمون القندي المشيمي
FSH	Follicle Stimulating Hormone	الهرمون المحرض للحويصلات
NVD	Normal Vaginal Delivery	ولادة مهبلية طبيعية
PV	Per Vagina	فحص مهبلي
PET	Preclampsia Toxemia	تسمم الحمل
PIH	Pregnancy Induce Hypertension	ارتفاع ضغط الدم للحامل
UTI	Urinary Tract Infection	التهاب المجاري البولية