



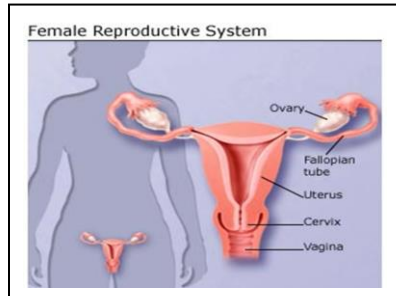
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MATERNITY NURSING
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Anatomy of female internal reproductive system

It composed of :-

- Ovaries
- Fallopian tube
- Uterus
- Vagina



Pelvis

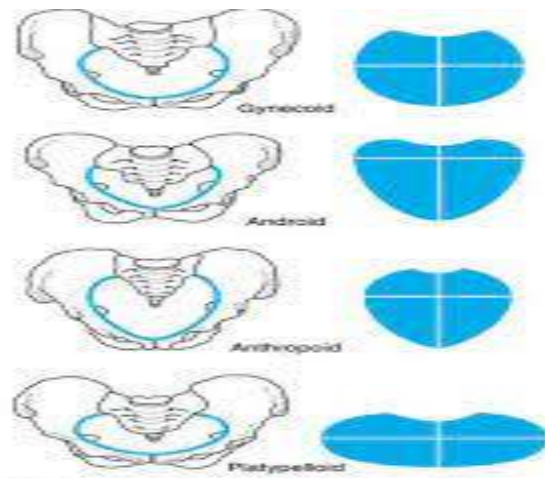
True & false pelvis :

False p. :- upper flaring part is less concerning with problem of labor than is the true pelvis it support uterus during late prg. & direct the fetus in to true p. at proper time.

True p. :- lower part from the bony canal through the fetus must pass during labor it divided in to thee parts:- an inlet (brim) – cavity – an outlet

Types of the pelvic The pelvic is divided into four types:

1. Gynaecoid (50%) : normal female –type pelvic which is round
2. Anthropoid (20%) : which has a long anterioposterior outlet
3. Android (20%) : male –type pelvic which has heart shaped outlet
4. Platypelloid (5%): which has a wide transvers outlet and not favorable to a vaginal delivery



1- Ovaries are two almond shaped organ that are situated in the upper part of the pelvic cavity

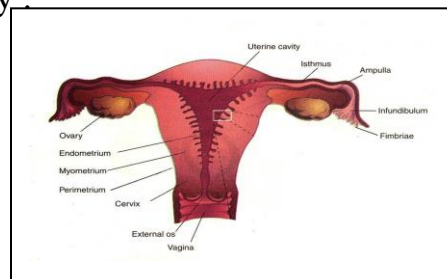
Function

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

2- Fallopian tubes :- are two trumpet shaped they extend from the cornua of the ut. And open into peritoneal cavity

Parts of fallopian tube :-

- 1- Interstitial part (narrow)
- 2- Isthmic (middle part)
- 3- Ampulla (wider part - fertilized)
- 4- fimbria (infundibulum)

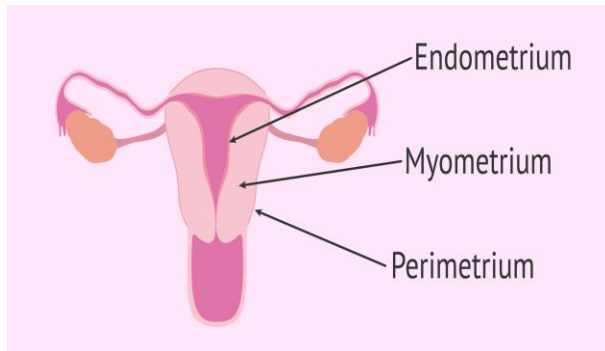


Function

- 1- Permit the passage of ova from ovary to uterus .
- 2- Permit the passage of spermatozoa from ut. to meet the ova .
- 3- Fertilization takes place in the ampullary part .
- 4- A safe nourishing environment for the ovum or zygote (fertilized ovum)

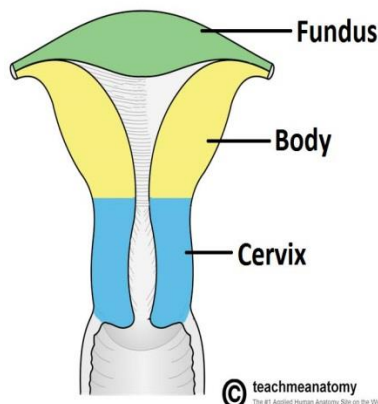
3- Uterus it a thick-walled muscular organ situated between the bladder and rectum .

It is approximately 2.5 cm (1 inch) thick, 5cm (2inch) wide, and 7.5cm (3inch) long. During pregnancy, the uterus can stretch and enlarge considerably. the weight of the non-pregnant uterus is approximately 75g ; it increase to approximately 907 g during pregnancy, The uterus have three layers (perimetrium ,myometrium , endometrium).



Is divided into 3 parts:-

- 1- Cervix
- 2- Body of uterus
- 3- Fundus



There are 10 ligaments stabilize uterus within pelvis cavity **4** paris legaments (Utero-sacro - Round - Broad) and **2** single ligament

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

- 4- **Vagina** it strong muscle situated in the middle of the pelvis .

Pregnancy

Definition :- the fertilized ovum in embedded in uterine cavity and grows these until delivery .

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
 - drowsiness and tiredness
 - vaginal changes
 - skin changes :-
 - a- striae gravidarum (stretching of the skin)
 - b- linea nigra
 - c- chlosma
 - 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 expected date of delivery (EDD)

calculation By adding 7 days and 9 month to the date of the (LMP)

EDD = LMP + 7 day + 9 month

Ex. LMP. 15-4-2009
7 - 9

E.D.D. 22-1-2010

EX: LMP of the pregnant woman on 7 feb 2013 calculate EDD ?

LMP. 7- 2- 2013
+7 +9

EDD = 14 - 11 - 2013

Also it can be calculated by count back 3 month from the 1st day of LMP &add 7 day correct for year necessary

EDD = LMP +7 days - 3 Month

EX : LMP. 7 - 11 - 2013
+7 - 3

EDD = 14- 8 -2014

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

Function

- 1- nutrition
- 2- O₂ and CO₂ exchange .
- 3- Transfer of heat .

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

Size and development of the fetus :

Ovum – fertilized ova the first 2 weeks .
Embryo – from 2nd to the 5th wks .
Fetus – after 5th 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.

6th month – skin appears , vernix caseosa , appears , eyebrows and finger nails develop

7th month – skin is red

8th month – eye lids open , fetal movement

9th month – amniotic fluid decreases .

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 .

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

7- Vaccination :-

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

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 .

General problems during pregnancy

- 1- **Hyperemesis gravid arum** :- 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
- 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 $> 100 \backslash \text{min}$
 - b- Temperature $> 37 \text{ c}$
 - c- Jaundice
 - d- Protein
 - e- Signs of amnesia , delusions , diplopia , fainting

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

Causes

Regurgitation of the stomach contents in to esophagus & cause irritation of 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 is very common during pregnancy .

Prevention

- 1- Avoiding highly salted food
- 2- Eating high protein food
- 3- Avoiding tight clothing & constriction of legs
- 4- Avoid standing for long time

Treatment :-

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

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 .

- 6- **Varicose veins** – it's enlargement in the diameter of a vein .

Predisposing factors :

- 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 .

Prevention

- 1- Avoid constricting clothes .
- 2- Avoid constipation
- 3- Avoid standing for long time.

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 month .

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 dipsia , poly phagia
- 2- Delay wound healing .
- 3- Loss of weight .
- 4- Purities .
- 5- Glucose urea .
- 6- 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

Complication of pregnancy

- 1- 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 .

2- 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

- 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- Eclampsia
- 2- Abruptio placenta
- 3- Antipartum haemorrhage .
- 4- Hepatic & renal failure

B- on fetus

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

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 .

Nursing care during labor

- 1- Monitor 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 anticonvulsant 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 .

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 Oder .

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

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

Abortion:- expulsion of fetus and placenta outside the uterus before 28 wks of pregnancy

Early abortion – before 12 wk

Late abortion- between 12-28 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 12-28 wks induction of labor by pitocin drip .

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

2- Septic abortion – cause

- Infection of uterus after incomplete or illegal abortion .
- Use of unsterilized instruments .
- Malnutrition and anemia .
- An practiced doctor or nurse .

Spontaneous abortion

1- 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- Give iron , vitamins
- 9- Body hygiene specially vulva
- 10- Advice at home – rest and take good nutrition

2- Inevitable abortion

Signs and symptoms :-

- 1- severe 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

4- 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
- 5- **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
- 6- **Missed abortion** Death of fetus inside the uterus and remains for weeks or months .

Sings 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 .

7- 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

Ectopic pregnancy

The fertilized ovum embeds outside the uterine cavity .

Types :-

commonly in the tube 95 %

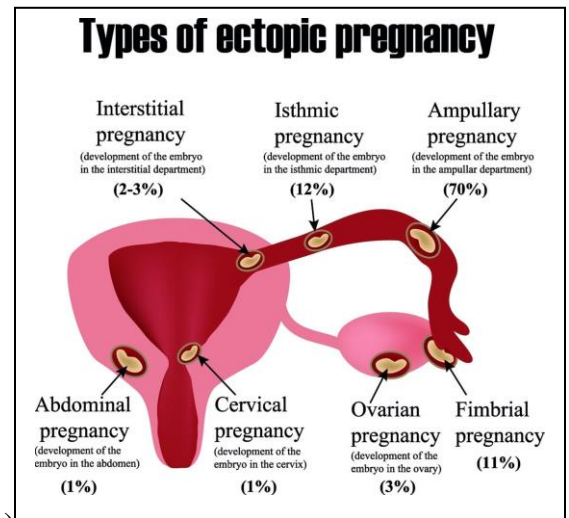
Abdomen 3-4 %

Ovarian 1%

Cervix very rare

Causes

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



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- Salpingectomy

Hydatid from 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

Sings 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

Anti partum hemorrhage (A.P.H.)

Definition :- its vaginal bleeding after 26 weeks of pregnancy before delivering of the fetus .

Incidence : 2% -5% of all pregnancy

Classification of APH ?

- 1- abruption placenta . (1 in 100 pregnancies) 40%
- 2- placenta previa .(1 in 200 pregnancies) 20%
- 3- un classified cause 35%
- 4- lower genital tract lesion 5%

1- Placenta praevia implantation of placenta in the lower uterine segment instate 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

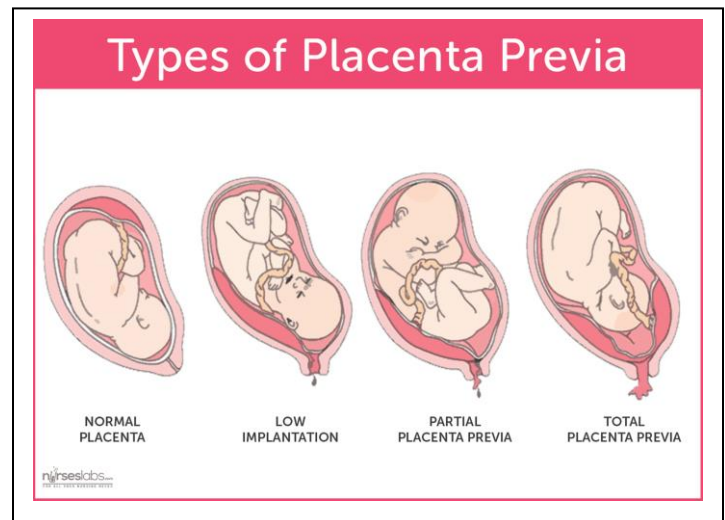
Causes :- unknown

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
- sings 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 enemia .
- Good dite rich with iron and vitamins .
- Observe the sings of shock and treatit quickly
- Preparparation of C\S if V.B. is severe .

Dangerous of P.P.

- A.P.H (shock)
- P.P.H.
- Still birth
- Perpiral seps

2- Abruption placenta

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

Classification of placenta abruption ?

- 1- Partial Abruption placenta
- 2- Complete Abruption placenta

Causes

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

Signs and symptoms

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

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

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 .

premonitory signs of labor

(1) lightening —→ The descent

of the fetus into the pelvic cavity occurs about 10-14 days before delivery .

Is followed by signs :-

- 1- pain in legs .
- 2- constipation .

- 3- difficulty in walking .
- 4- Increase amount of vaginal discharge .
- 5- Frequency of urination .

(2) False labor or Braxton – Hicks contractions irregular and intermittent occurs
3-4 wks before true labor .

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

- * Increment → Intensity of the contractions increase
- * Acme → The top of the contractions
- * Decrement → diminishing of the contraction intensity
- * Frequency → the time from the beginning of one contraction to the other .
- * Intensity → it's moderate , mild . severe
- * Interval between contraction → 10-15 min (1st stage)
2-3 min (2nd stage)

Distinguishing between true & false labor

True labor	False labor
1- contractions regular	1- Irregular con.
2- Abdominal pain that spread to the back	2- pain that is localized in the abdomen
3- progressive cervical dilatation and effacement	3- no cervical changes
4- Gradually shortened intervals between contraction	4- no change
5- Increased intensity of con. With ambulation	5- No change in with ambulation
6- Increase uterine con. In duration and intensity	6- Remains same
7- Show usually present	7- none

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.

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

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

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

Approximate length of time for each stage

	1 st stage	2 nd stage	3 rd 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

Signs of placenta separation

- 1- The fundus feels hard and globular and rises abdominally to the level of the umbilicus
- 2- The umbilical cord descends 3 or more inches out of the vagina .
- 3- Sudden gush of blood .

Nursing care during 1st stage of labor

- Taking information .
- Do physical and obstetrical examination .
- Check vital signs and FHB .
- Do urine and blood test .
- Take advising about diet and fluid intake .
- Do perineal care .
- Checking the drops of pitocin .

- Checking uterine contraction .
- Do cleaning enema .
- Advising about walking and warm bath .
- Psychological support .

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

Immediate 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 inj.

- 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

- Perinal care → The purpose
 - 1- To prevent infection .
 - 2- For mother comfort .
 - 3- To promote healing .

- Cover the women and keep her warm .
- Check vital signs .
- Take warm fluid and rest .

Factor effecting the labor ?

- 1- Passanger
- 2- Passageway
- 3- Power
- 4- Pschye (psychological status)
- 5- Placenta position

Induction of labor

Medical by using oxytocin drip

Surgical:- A.R.M. (artificial rupture membrane)

Conditions ?

- 1- Full term
- 2- Cephalic presentation
- 3- No obstrical contradiction
- 4- Should be in hospital

Complication?

1. Rupture of uterus
2. Fetal & maternal distress
3. Drag sensitivity
4. Failure of induction

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

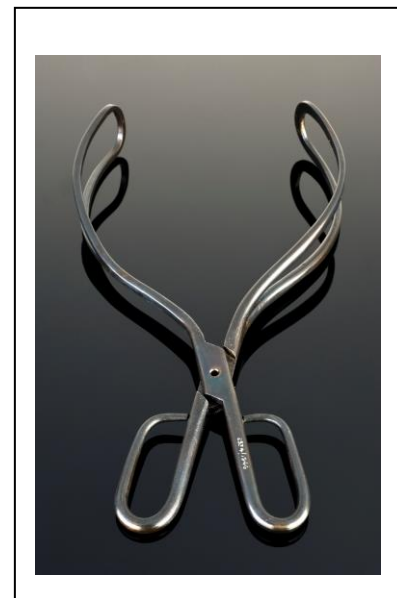
Forceps

Type of forceps?

1. 1-long curved forceps (for high traction)
2. Short curved forceps (for lower traction)
3. Kelland curved forceps (for traction & rotation) ex : transver position of fetal haed

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. Cervix 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 .

Episiotomy

It is making incision into the perineum to increase 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- Mediolateral .
- 2- Medium .

Advantages of medium

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

Disadvantages of mediolateral

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

Nursing care

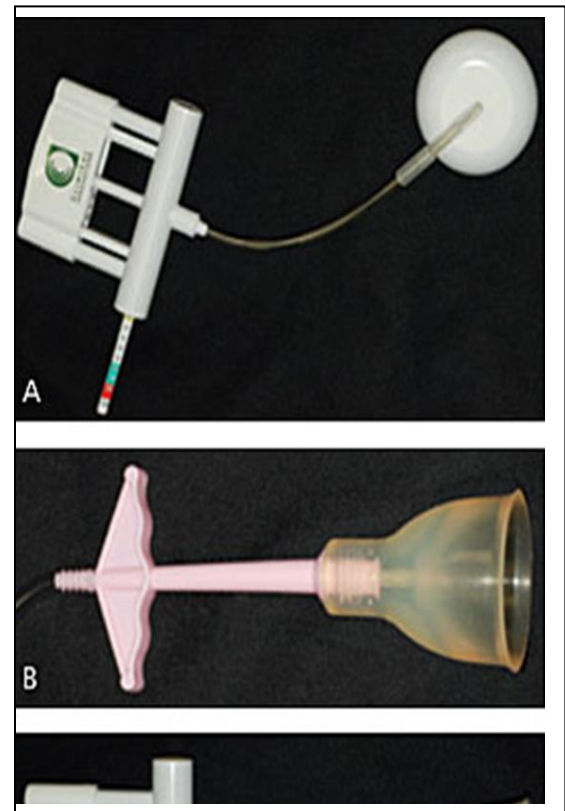
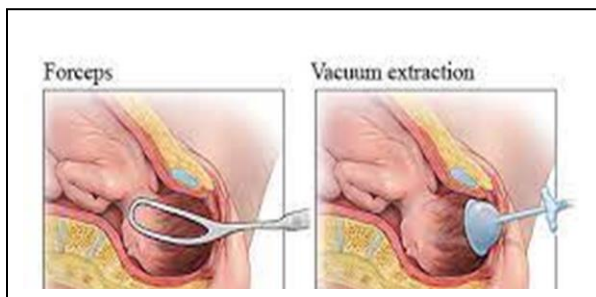
- 1- Perineal clean .
- 2- Warm sitz bath .
- 3- Give antibiotic .
- 4- Good diet .

Vacuum used in case of

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

Danger of vacuum ?

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

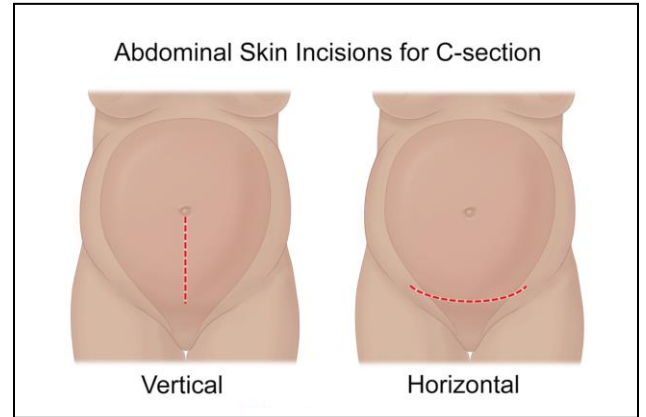


Cesarean section

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 .

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 .

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
Most common 97 %
 - brown
 - vertex
 - face
- 2- breech presentation
- 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- Polyhydraminous → 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 .

Complication of labor

Dystocia or difficult labor

Involving the following problems :-

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

management

- 1- give Iv. Oxytoxin 0.5 with Iv. Fluid 5% glucose (induction of labor).
- 2- Forceps delivery when there is complete dilatation of cervix and C\S when 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 . | } more common |
| 2- Laceration of the perineum , vagina , and cervix . | |
| 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 oxytoxin .
- 4- Commonly in multiparas .
- 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 .

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)

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

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

Predisposing factors

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



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 .

- 2- Endometritis** It is localized infection of the uterus .

Signs & symptoms fever 38 c , rapid pulse , headache , chilling , and loss of appetite .

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 .
- 4- **Incontinence of urine** Dribbling of urine during coughing and sneezing .

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 .

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 .