



Multiple pregnancy.

Department of Obstetrics and Gynecology, number 1 KhNMU



Multiple pregnancy is a pregnancy when more than one fetus simultaneously develops in the uterus



Frequency: 0.7 - 15%.

Superfetation

- **Superfetation** - noun fertilization of a second ovum after a pregnancy has begun; results in two fetuses of different ages in the uterus.



Superfecundation

Superfecundation is the fertilization of two or more ova from the same cycle by sperm from separate acts of sexual intercourse.



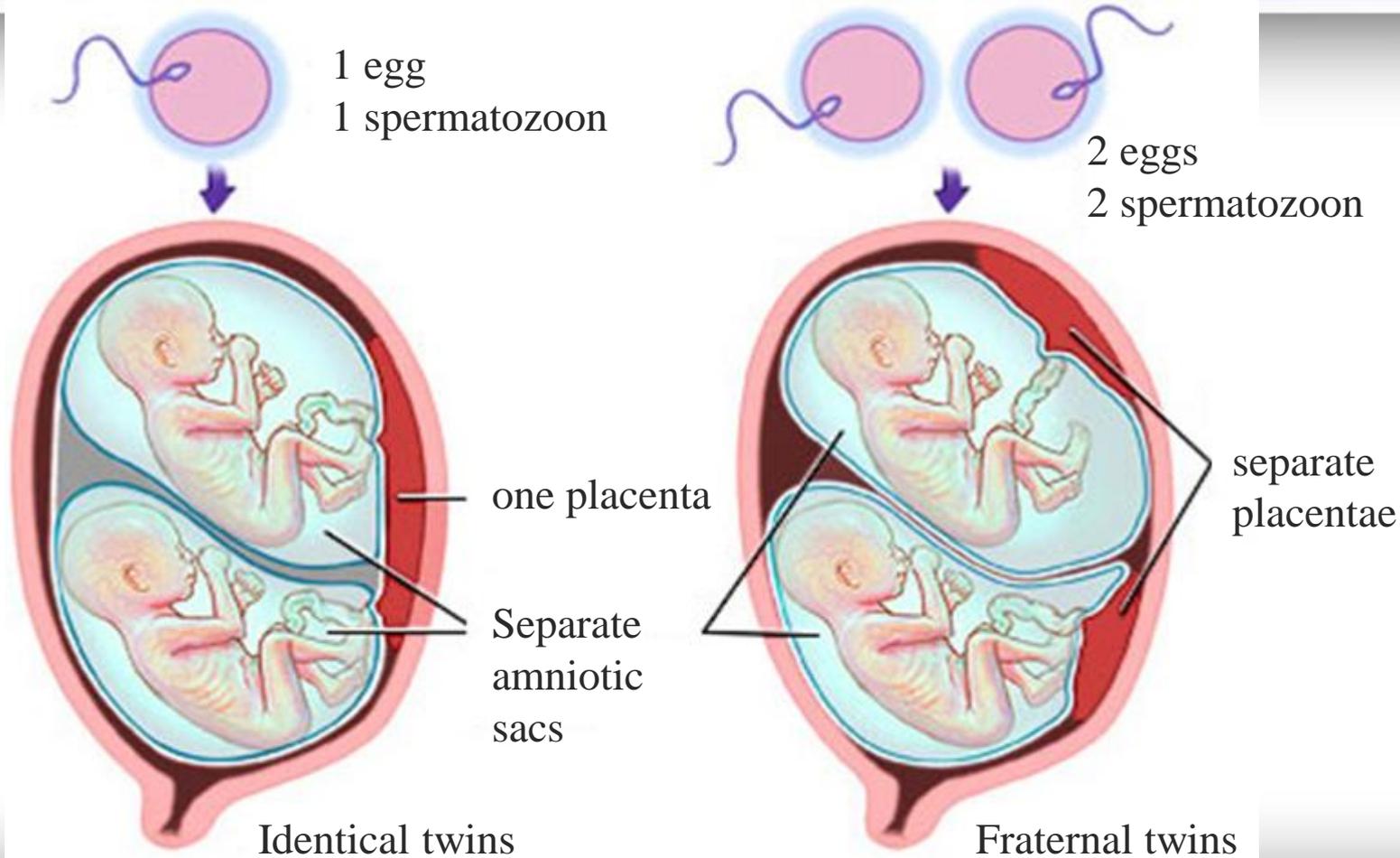
Factors contributing to the multiple pregnancy:



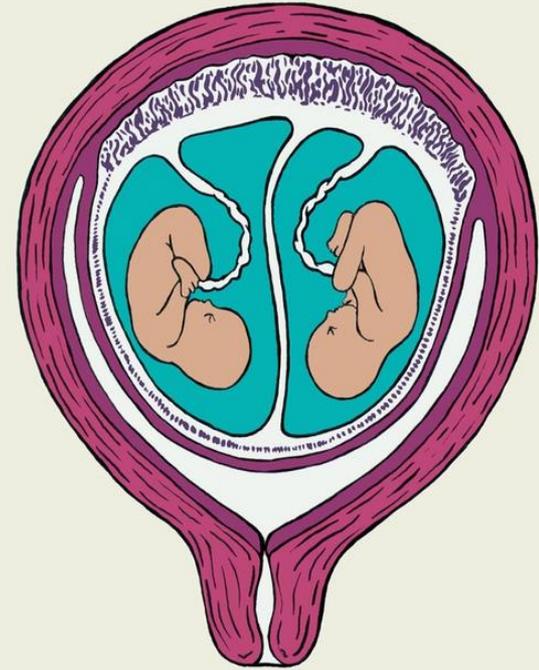
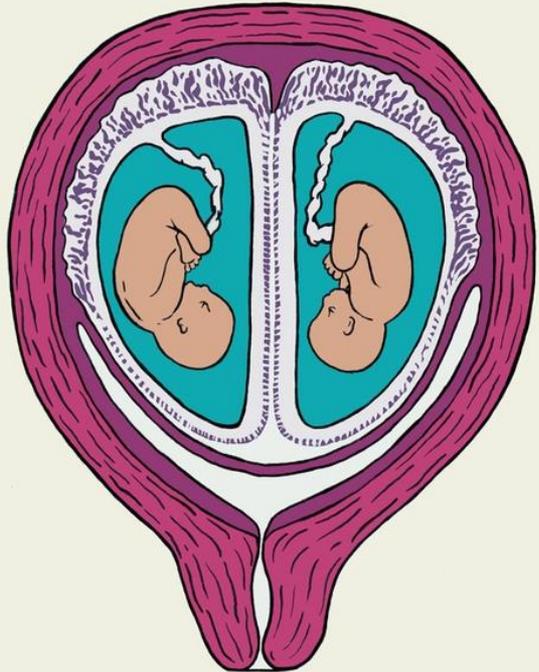
- maternal age over 30-35 years;
- hereditary factor (maternal);
- anomalies of the uterus (doubling);
- pregnancy immediately after discontinuation of oral contraceptives;
- with the use of assisted reproductive technologies (ICF).

Classification:

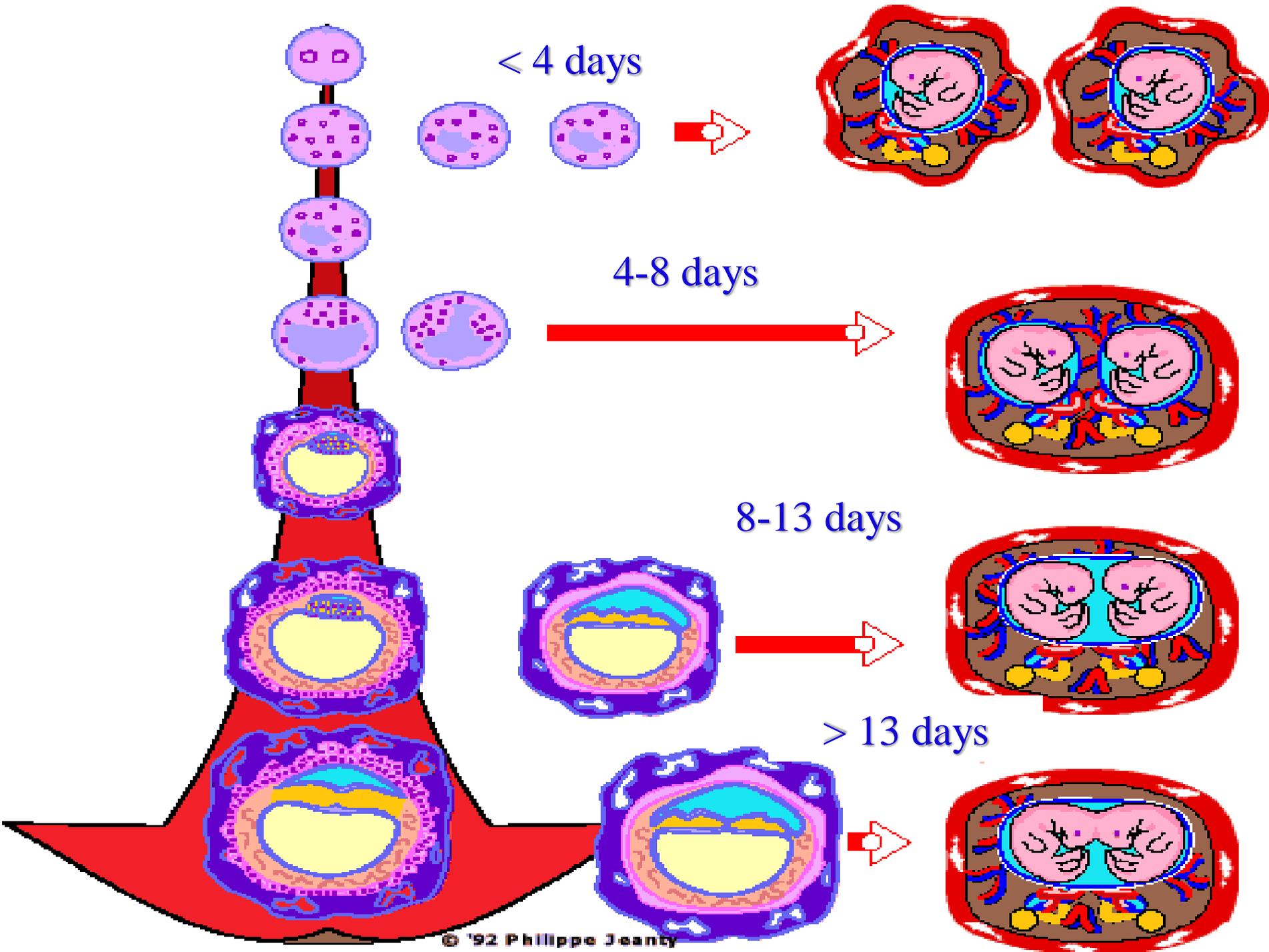
- monozygotic (identical) twins
- bizygotic (fraternal) twins

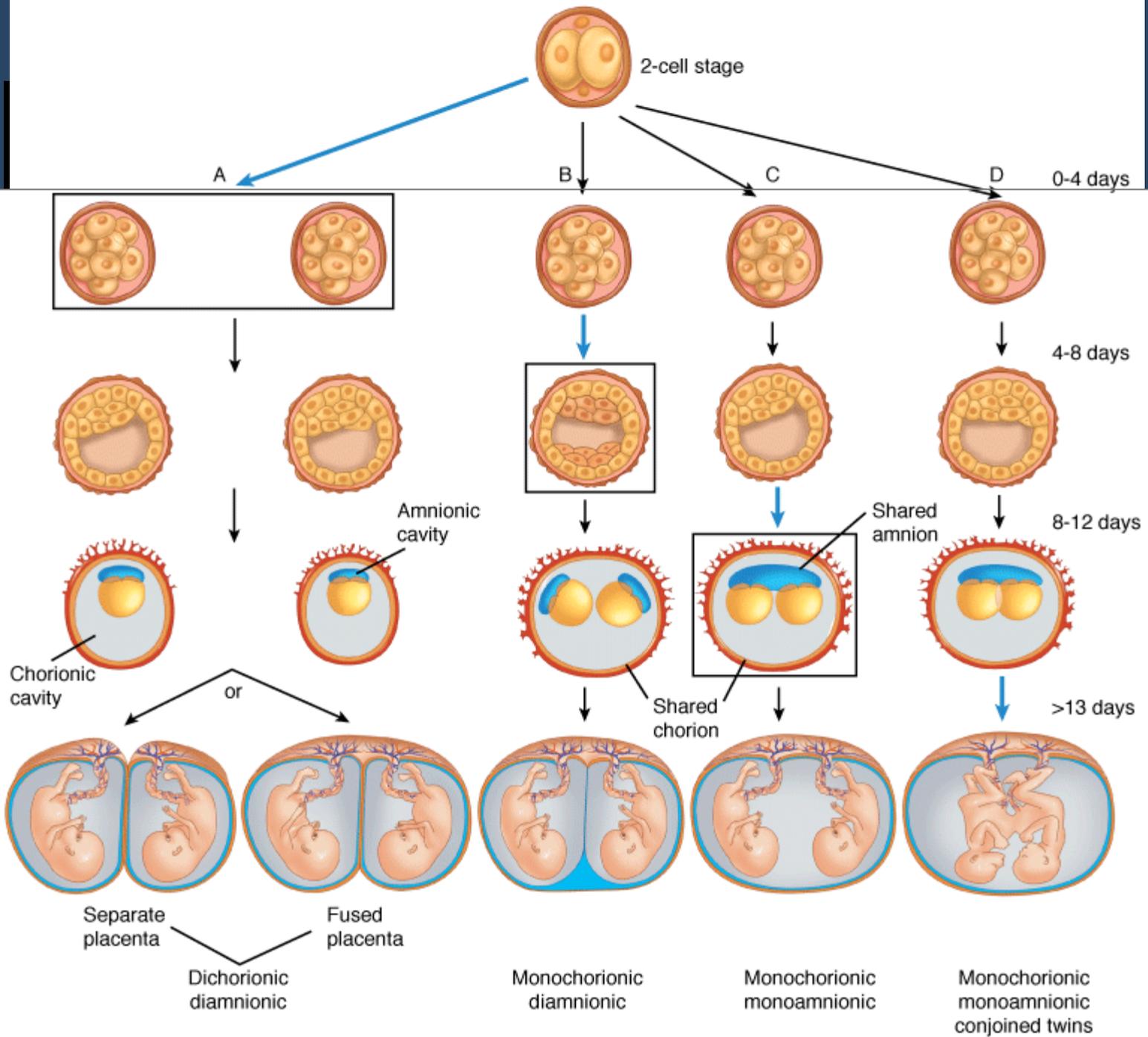


Types of placentation in multiple pregnancy:



- ✓ bichorionic, diamniotic.
- ✓ monochorionic, monoamniotic.
- ✓ monochorionic, diamniotic.





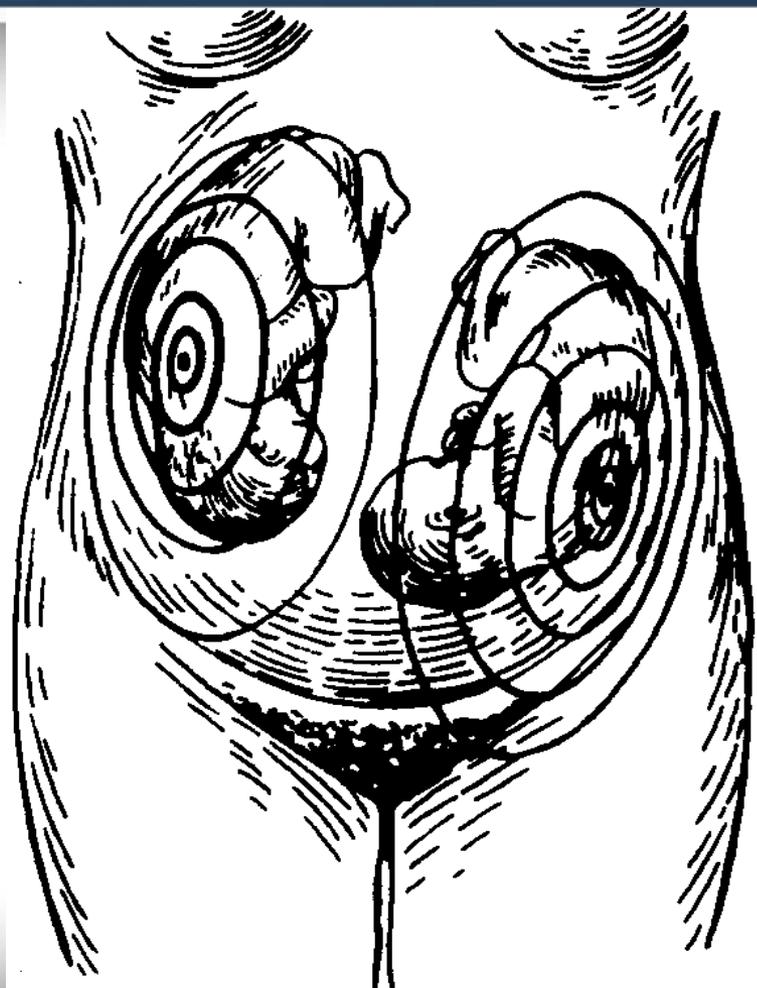
Diagnosis:



- History data (hormonal contraception, ICF);
- The size of the uterus is not correspond to gestational norm (external obstetric research and vaginal examination in the early stages);
- Palpation by Leopold (of too many small fetal parts and more than 2 major parts of the fetus);
- Auscultation of two distinct fetal heart sounds located at separate spots with a silent area in between;
- Ultrasound.



- The size of the uterus exceed the gestational norm (external obstetric research and vaginal examination in the early stages);



- Auscultation of fetal heart tones in two places at once with a silent area in between points.

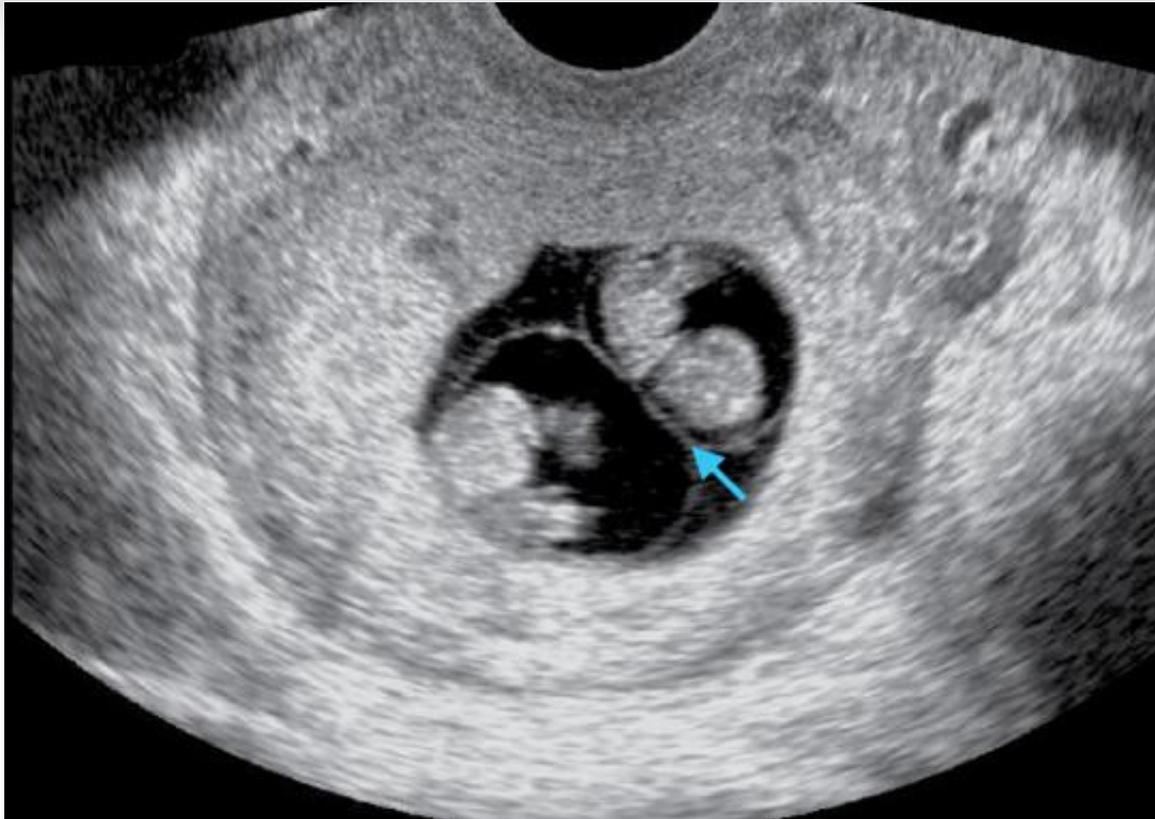


○ Ultrasound.

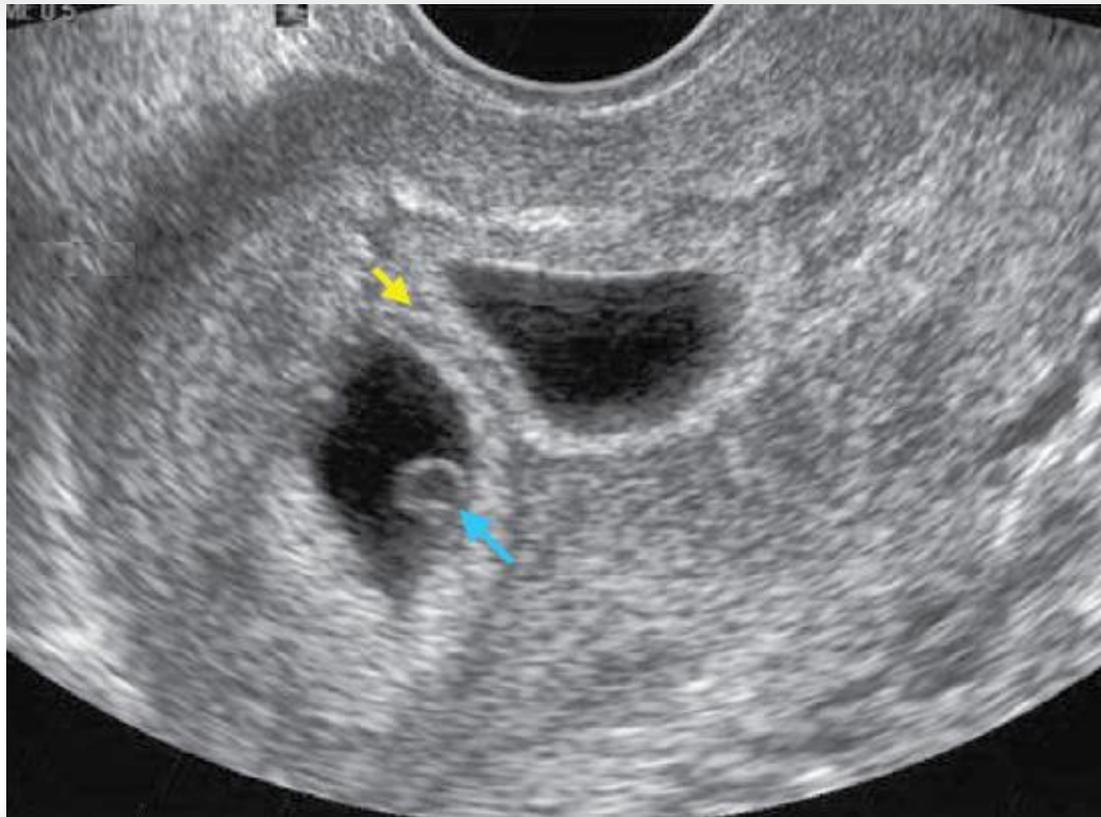


DIAGNOSIS IN EARLY PREGNANCY

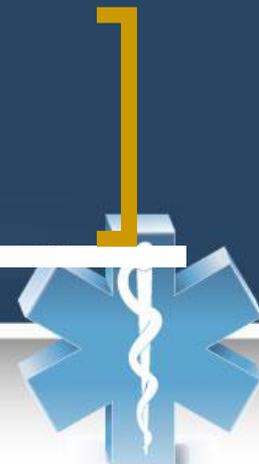
Sonograms of first-trimester twins



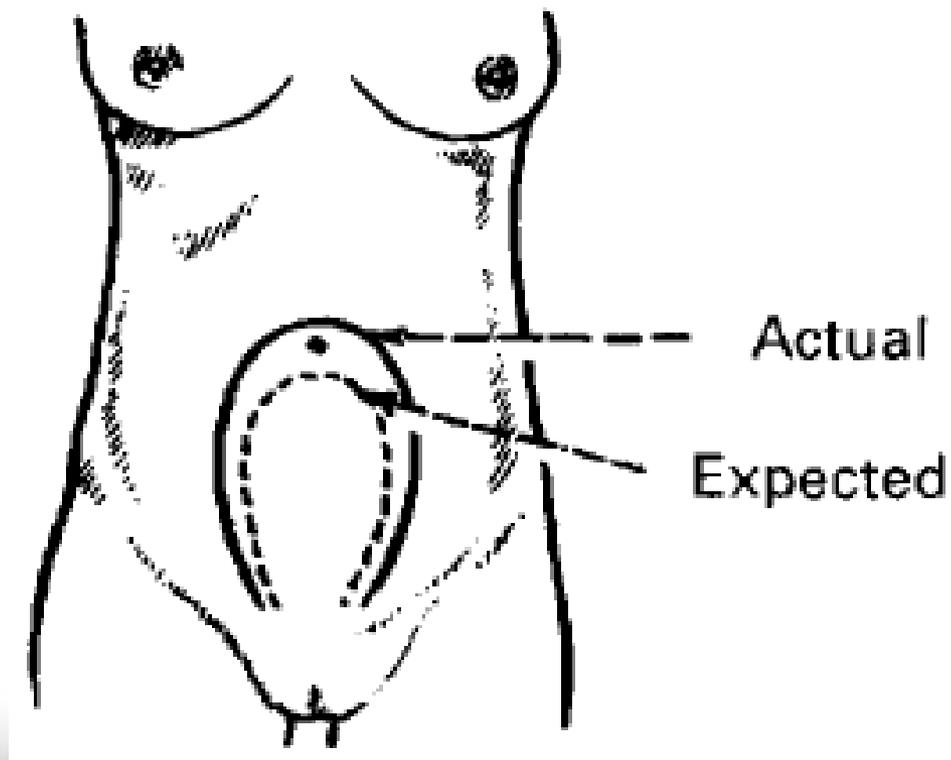
A) Monozygotic diamniotic twin pregnancy at 8 weeks' gestation. Note the thin amnion encircling each embryo, resulting in a thin dividing membrane (*blue arrow*).



B) Dichorionic diamniotic twin pregnancy at 6 weeks' gestation. Note the thick dividing chorion (*yellow arrow*). One of the yolk sacs is indicated (*blue arrow*).



The diagnosis of multiple pregnancy may be suspected on history and clinical examination: a history of infertility treatment or severe hyperemesis in early pregnancy are suggestive. Suspicion may be further raised if the uterus is found to be large for dates.



Other causes of apparently abnormal uterine enlargement in early pregnancy are:

(a) **Mistaken Dates** — bleeding after conception being considered as a period.

(b) **Polyhydramnios** — rare in early pregnancy.

(c) **Fibroids**—These tend to flatten and soften in pregnancy but may be irregular.



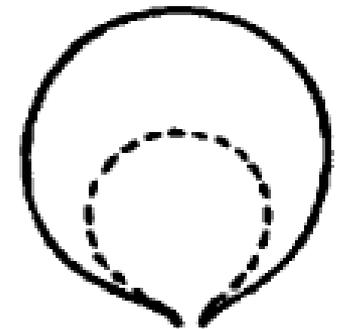
(d) **Abdominal Cyst** — It is usually possible to differentiate two masses.



(e) **Hydatidiform Mole** — Usually accompanied by staining. Urinary HCG excretion will be much elevated.



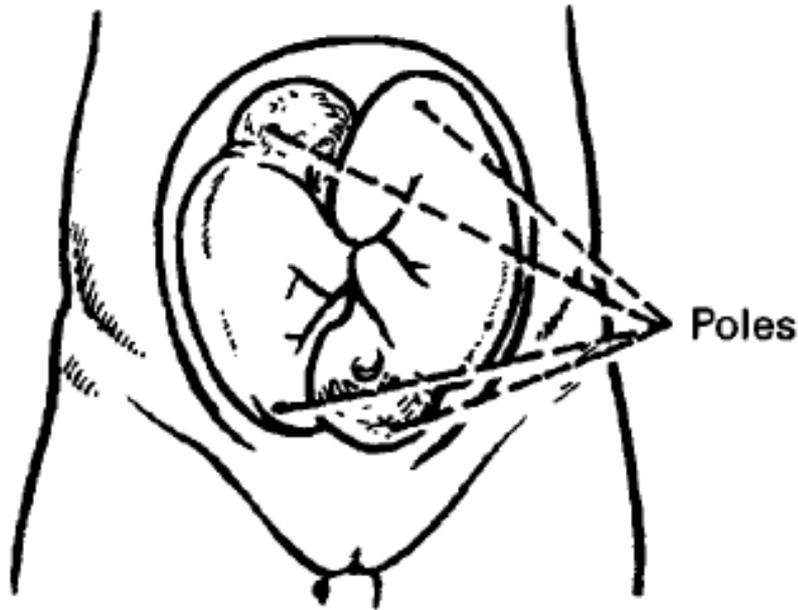
(f) **Retention of Urine** — 'Catheter will cure'. It may be associated with retroversion and incarceration of the uterus.



Ultrasound examination in early pregnancy will differentiate these conditions and is the only method of diagnosing multiple pregnancy reliably.

DIAGNOSIS IN LATE PREGNANCY

The uterus is more globular and larger than normal for the dates. Polyhydramnios may be present. It is commoner in monozygotic than in dizygotic twins.



If there is no evidence of polyhydramnios, an apparent 'excess' of fetal parts may be noted. It may be difficult to define the lie of the fetuses but three fetal poles (head or breech) must be identified to be sure of the diagnosis.

Clinical suspicion of twin pregnancy must always be confirmed by ultrasound, if this has not already been performed.

LABOR AND DELIVERY



45%

Vertex and Vertex



37%

Vertex and Breech



10%

Breech and Breech



5%

Vertex and Transverse



2%

Breech and Transverse



0.5%

Transverse and Transverse

Duration of pregnancy:

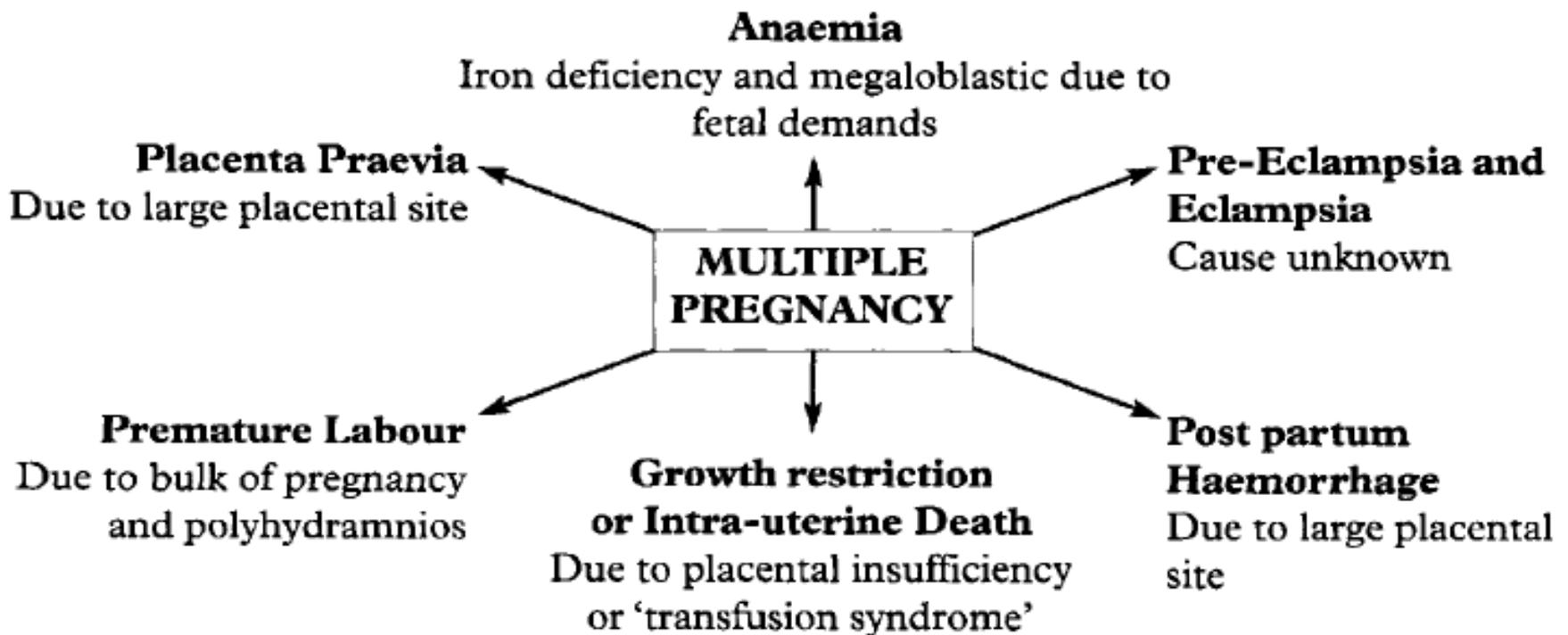


- Maternal mortality and morbidity is increased 3-7 times (organs functionate with heavy efforts).
- The frequency of preeclampsia 45% ("hyperplatcentosis").
- Hypertension and edema (increase in intravascular volume).
- Anemia 50-100% (increase in intravascular volume).
- Fetal growth retardation, fetal death.
- Preterm birth (hyperextension of the uterus).
- Specific complications.
- Syndrome twin-twin transfusion
- Congenital malformations (fused twins).

Complications

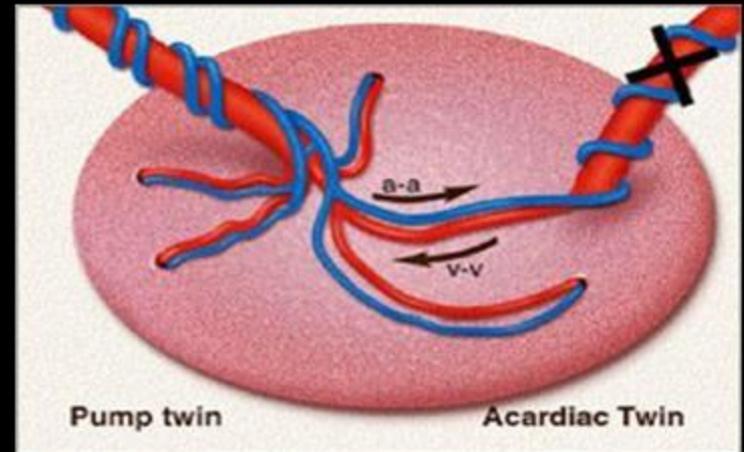


The major complications are illustrated below but it must be remembered that the so-called minor complications of pregnancy such as heartburn, varicose veins, haemorrhoids and other pressure effects may all add to the mother's burden.



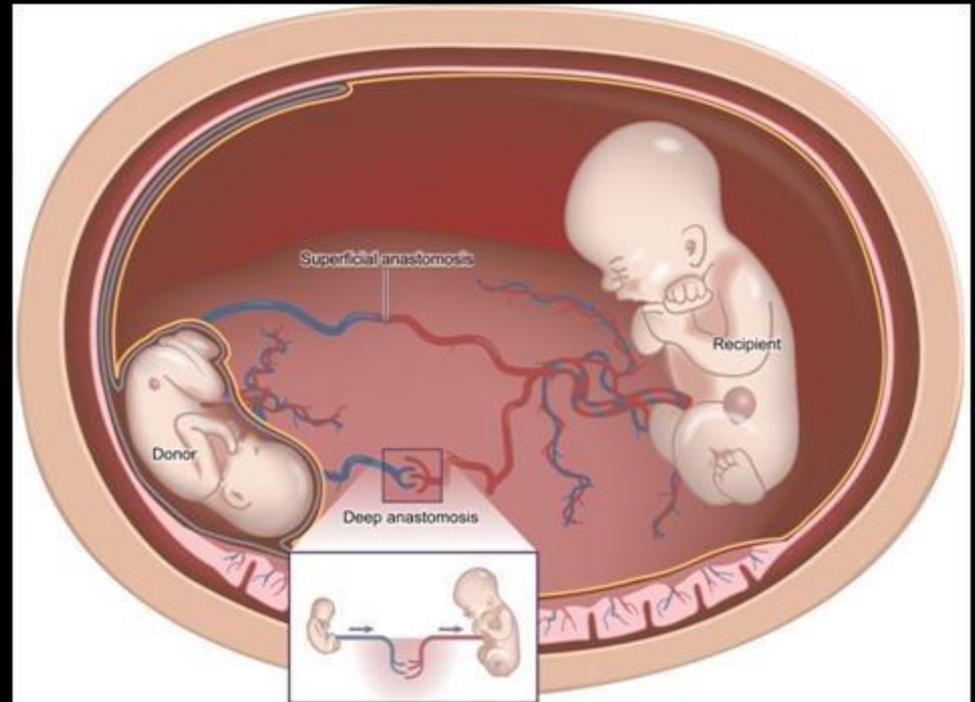
Complications

- Modified (reverse) arterial blood flow of twin (TRAP- twin reversed arterial perfusion) occurs when the twin without a heart gets all the blood from the normal fetus - "pump".
- This is possible only in monozygotic twins. Blood flow in the fetus without heart going in the opposite direction. Blood enters this fetus through the umbilical artery and exits through the umbilical vein. Excessive load on the heart of a normal fetus - "pump", can lead to heart failure.



Complications

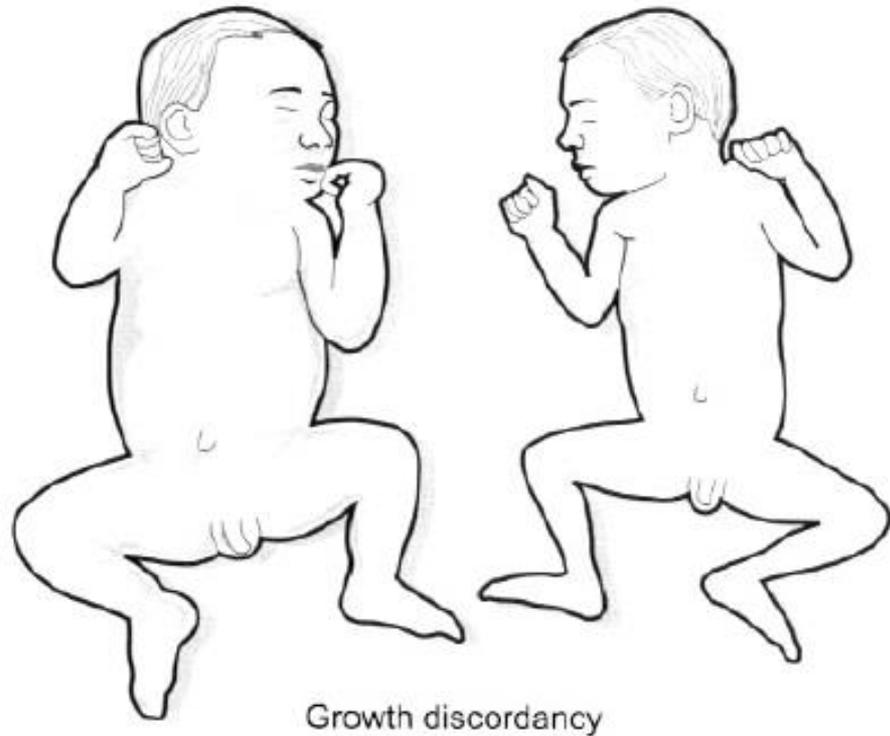
- Twin-twin transfusion
This syndrome occurs in **monochorionic / monoamniotic** and **monochorionic / diamniotic** twins
- Anastomoses in the monochorionic placenta result in transfusion of blood from one fetus (donor) to another (the recipient).



Transfusion Syndrome



This condition, in which there are vascular anastomoses between the placentae of monozygotic twins, results when one baby acts as a blood donor to its twin.)







Twin-twin transfusion syndrome at 23 weeks. Pale donor twin (690 g) is shown on the left. The plethoric recipient twin (730 g) on the right also had hydramnios. The donor twin had oligohydramnios.



Acardia

- **Acardia** — congenital absence of the heart; a condition sometimes occurring in one member of monozygotic twins or in one member of conjoined twins when pair partner monopolizes the placental blood supply; can also occur in triplet pregnancies.

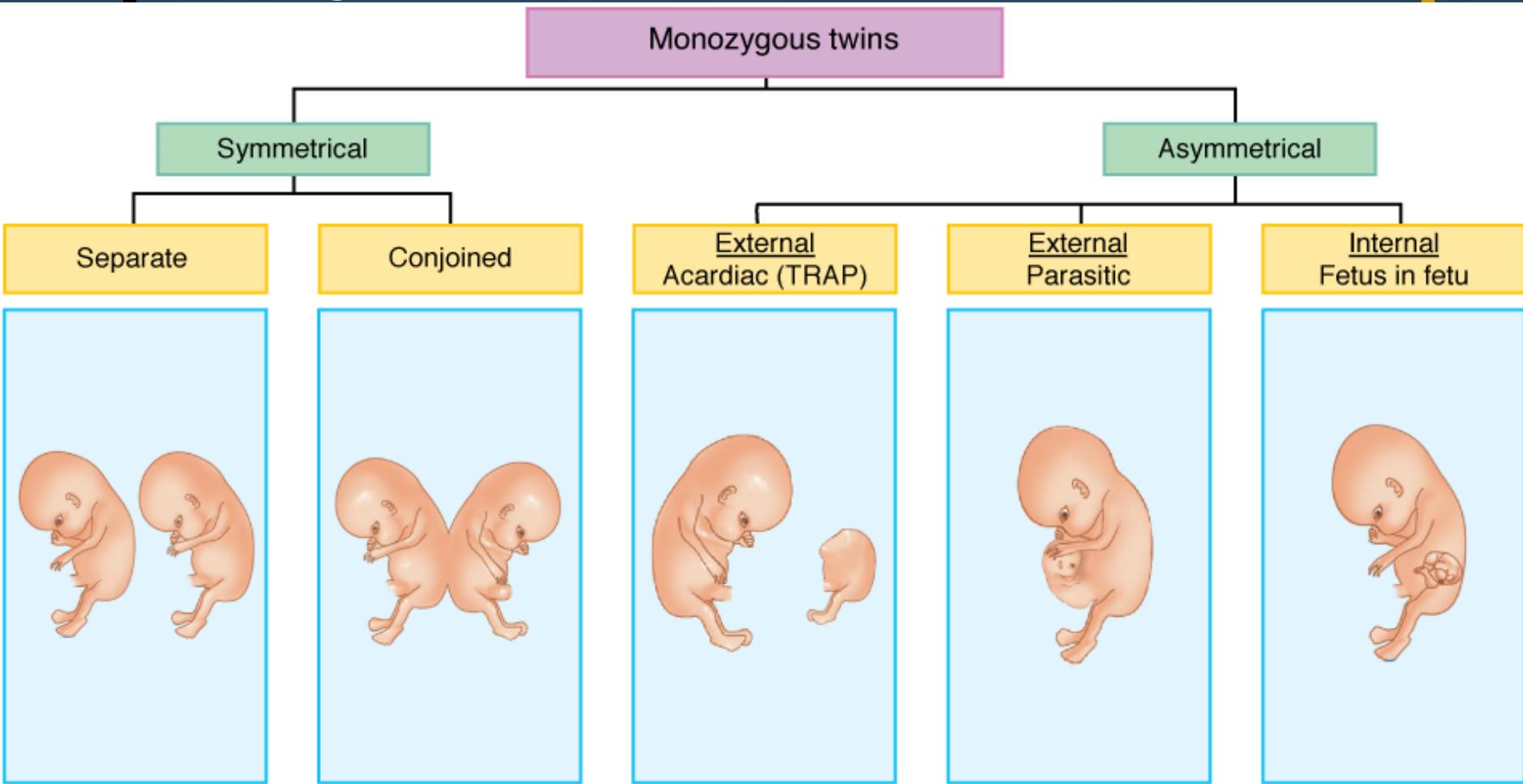


Fetus Papyraceus

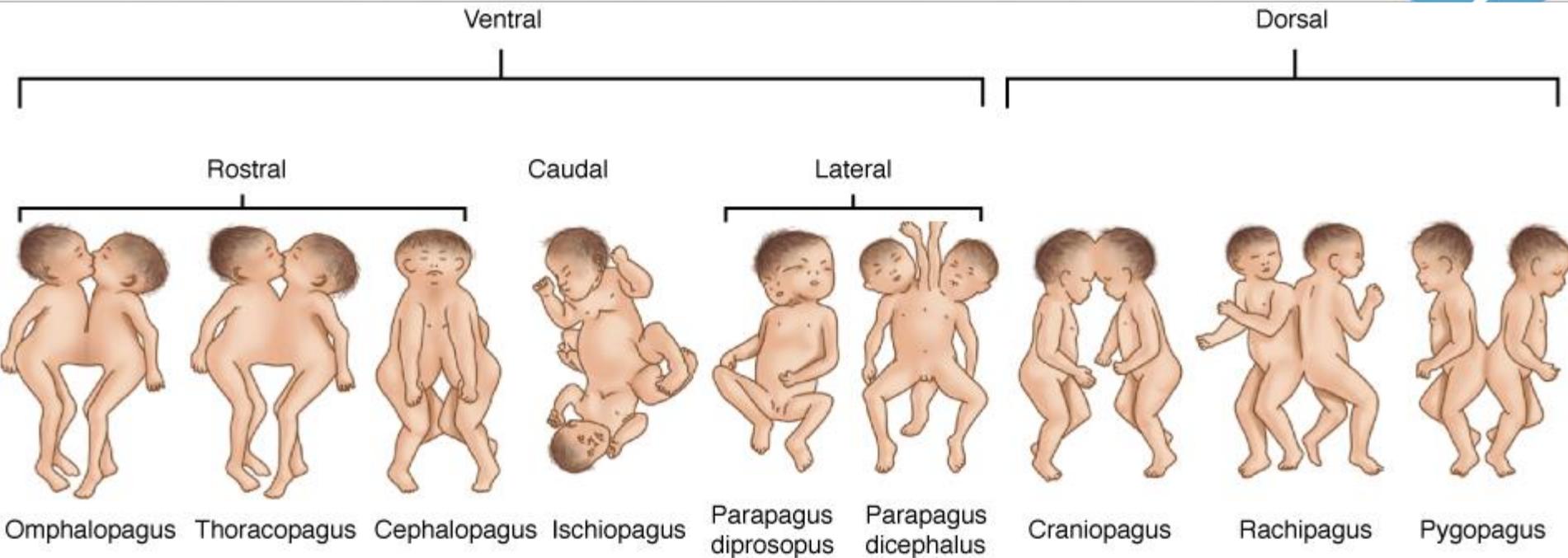
Sometimes a twin does not develop but becomes amorphous or shrivelled and flattened. This is called fetus papyraceus or compressus. It may be readily apparent or may be found wrapped in the membranes of the placenta.



Possible outcomes of monozygotic twinning.



Types of conjoined twins.



Sonogram of a conjoined twin pregnancy at 13 weeks' gestation. Twins with two heads but only one torso are termed parapagus dicephalus.



Conjoined twins in which one was anencephalic.



Monozygotic twins



Prenatal care:



- Antenatal visit before 28 weeks 2 times a month, after 28 weeks 1 every 7-10 days.
- At 28 weeks pregnant woman take out medical document(maternity live) about incapacity for work.
- Visiting therapist 3 times during pregnancy.
- Optimal weight gain of 20-22 kg.
- From 16-20 weeks - anti-anemic therapy (iron-containing preparations 60-100 mg/ day, folic acid of 1 mg / day for 3 months).
- Caloric intake of 3500 kcal per day.

Prenatal care:

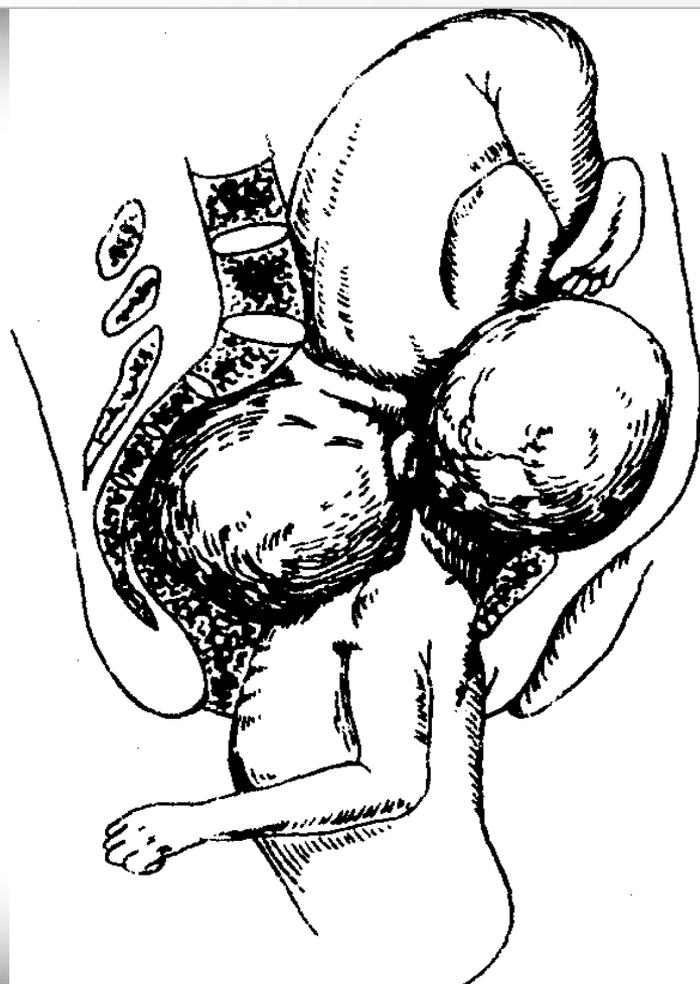


- Limitation of physical activity, increased duration of day rest three times for 1-2 hours (the prevention of preterm birth).
- Transvaginal cervicography(22-27 weeks the risk of preterm birth).
- Amniodrainage under control of ultrasound (at SFFT)
- If stillbirth and monochorionic type of placentation, occlusion of the umbilical cord of dead fetus immediately or cesarean section.
- When abnormalities - occlusion of the umbilical cord, intracardiac introduction of potassium chloride, spirit in blood vessels of the umbilical cord.

And for the management of labor:



- Primary and secondary uterine inertia.
- Premature rupture of membranes.
- Prolapse of cord loops and small fetal parts - CS.
- The longitudinal position of the second fetus –cut the amniotic sac.
- Collision of twins – urgent CS.
- Transverse position of the second fetus - external obstetric and vaginal examination after the birth of the first fetus- CS.
- At SFFT the risk of acute intranatal transfusion - CS.
- Torsion of the umbilical cord - CS.
- Conjoined twins - CS.
- Pregnancy with 3 or more fetus , polyhydramnion , the total mass of more than 6 kg – CS in 34 weeks .
- Vena cava syndrome IVC - births on the side.



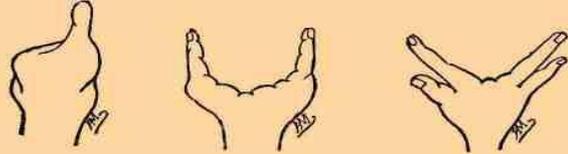
Collision
(interlocking of twins
at breech
presentation of the
first and head of the
second fetus).

Malformations

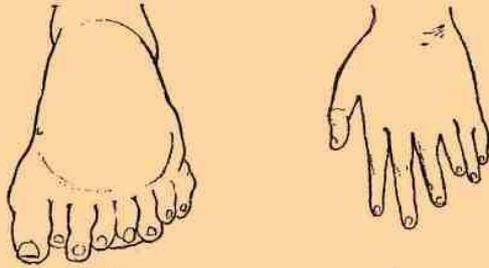


Thoracopagus





1.—3. Три уродливые руки с 1, 2 и 4 пальцами.



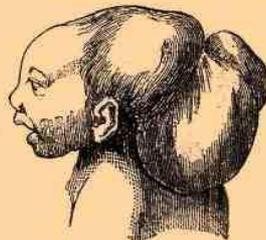
4 и 5. Восьмипалая нога и семипалая рука.



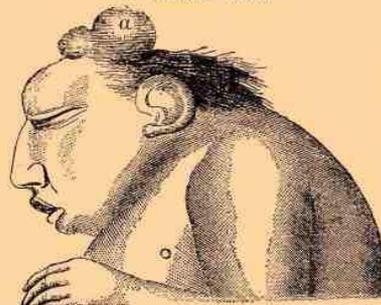
6. Двурасщепленная рука с необычным числом пальцев на каждой части.



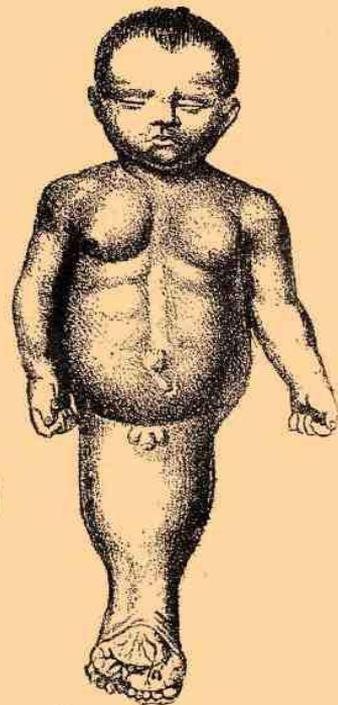
8. Теленок представляющий явление цекостомии.



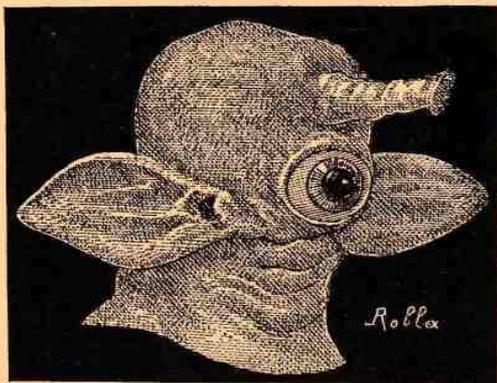
9. Голова ребенка, представляющая явление акроцефалии.



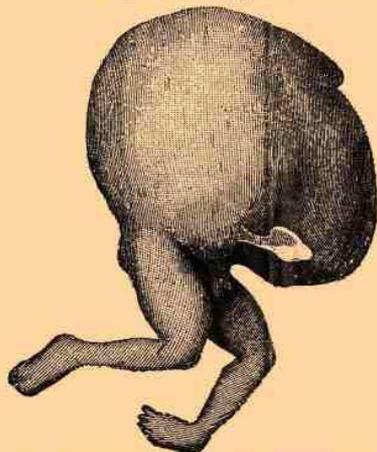
10. Голова субъекта анцефального.



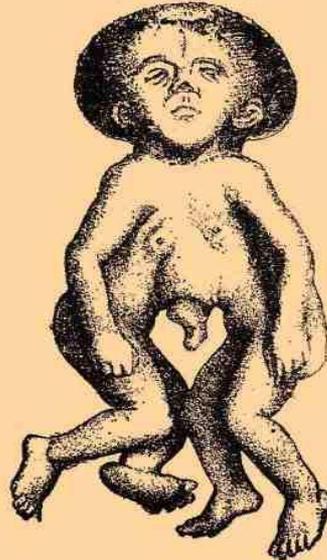
7. Уродец со сросшимися ногами



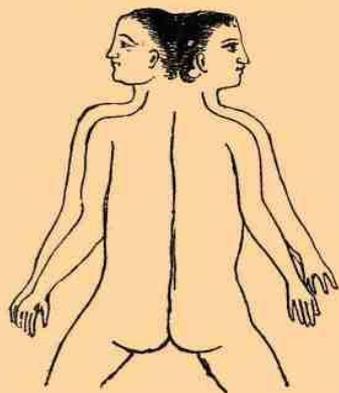
11. Поросенок, представляющий явление стеноцефалии и циклопиус; единственная позда на концѣ хоботообразнаго придатка.



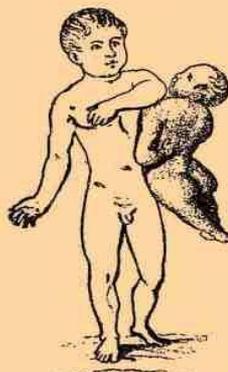
12. Ацефальный (безголовый) человеческий зародыш.



13. Двойной анусообразный уродь (ср. рис. 15) но лицо обращенное къ читателю хорошо развито, тогда какъ противоположное слабѣе развито. Между двумя сросшимися грудными частями сѣшивается пуповина.



15. Анусообразный двойной уродь сь разномѣрно развитыми лицами.



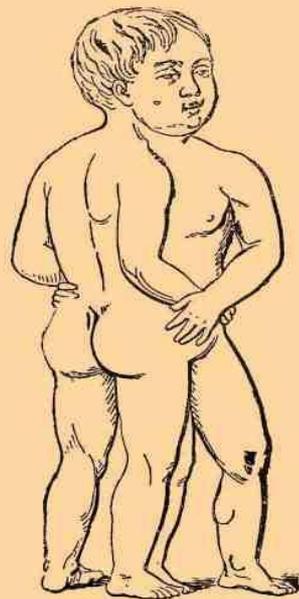
17. Двойной уродство, коего меньшій (паразитический) уродецъ выволи сформированъ.



16. Одногубовицный уродь сь одной головой, но двумя лицами.



18. Недоразвитое лицо анусообразнаго урода того же типа, какъ изображеннаго на рис. 13.



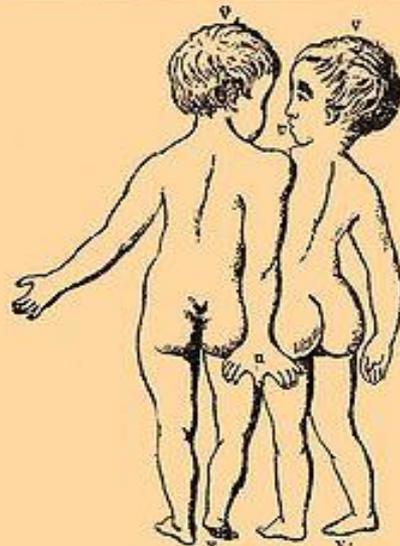
14. Одноголовый двойной уродь.



19. Двойной уродъ, у котораго срослись произойдо въ нижней части, а грудная часть остается обособленными.



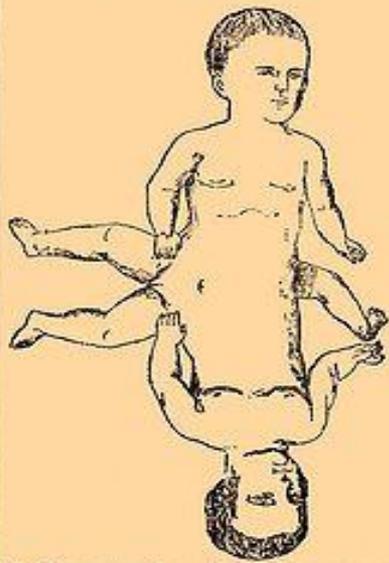
20. Скелетъ уродца двойного, котораго обѣ особи срослись грудными костями.



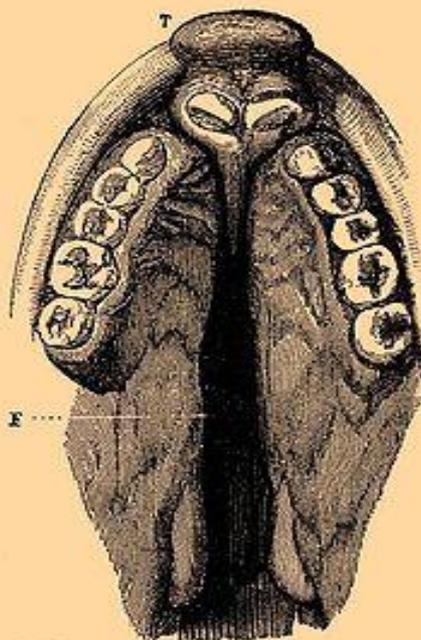
21. Двойное однополучное уродство; обѣ особи срослись подъ прямымъ угломъ, а равно срослись и ихъ сосѣднія руки.



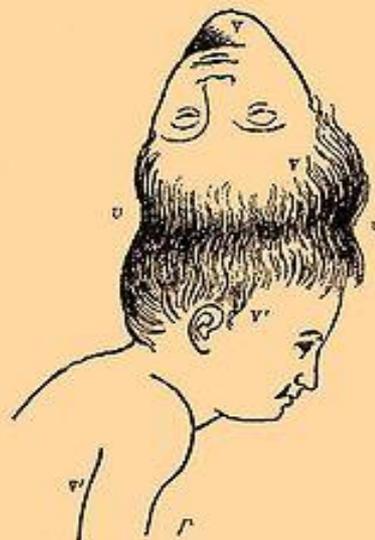
22. Двойное уродство, котораго второй паразитный уродецъ представляеть двумя сросшимися ногами.



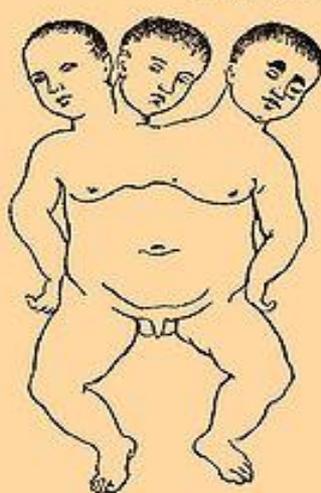
23. Однополучный двойной уродъ; сросствіе произошло тазовыми частями.



26. Небная щель при зачатой губѣ и трехраздѣльная челюсть.



24. Двойной уродъ, котораго паразитный уродецъ представляеть одной головою.



25. Трехголовый, т. е. тройной однополучный уродъ.



27. Деформированный зародокъ, вслѣдствіе перетягиванія пупочной.

Malposition:



- extension presentations (vertex, brow, face);
- breech;
- malposition (lateral, oblique).

Extension fetal presentation

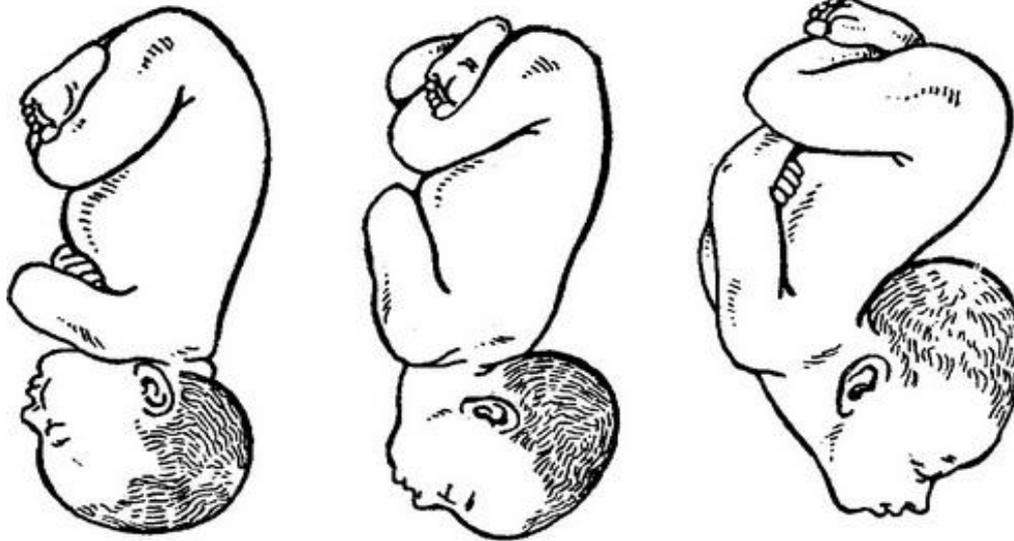


- prevalence of 0.5-1.0%;
- causes:
 - ✓ lowering the tone and uncoordinated contraction of the uterus;
 - ✓ Contracted pelvis (especially flat);
 - ✓ reducing the tonus of the pelvic floor muscles;
 - ✓ Fetus is extremely small or large;
 - ✓ lowering the tonus of abdominal muscles;
 - ✓ Stiffness of occipital joint;
 - ✓ thyroid tumors or other tumors of the neck of the fetus;
 - ✓ shortening the cord (absolutely or relatively short umbilical cord);
- Labor in extension presentation is possible only in posterior view.

There are three degrees of extension presentations :



- vertex;
- brow;
- face.



Vertex presentation



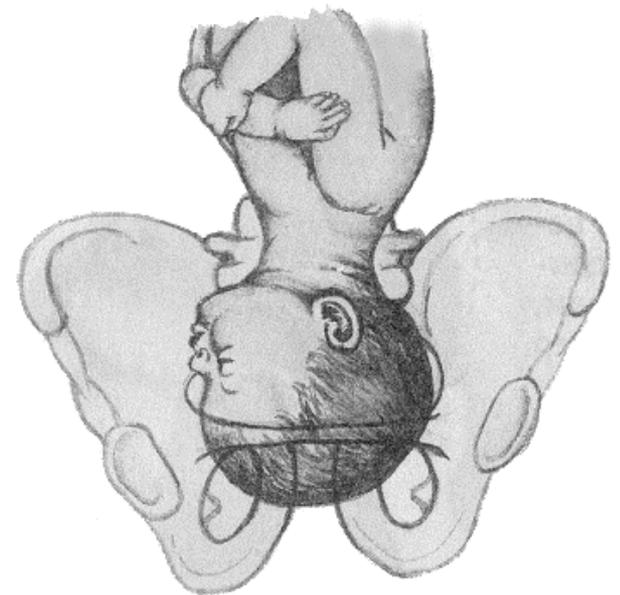
- The diagnosis is established by vaginal examination, at which small and large fontanelles is palpated, and the large fontanelle is located below small and is the wired point.



I movement of mechanism - extension of the head.



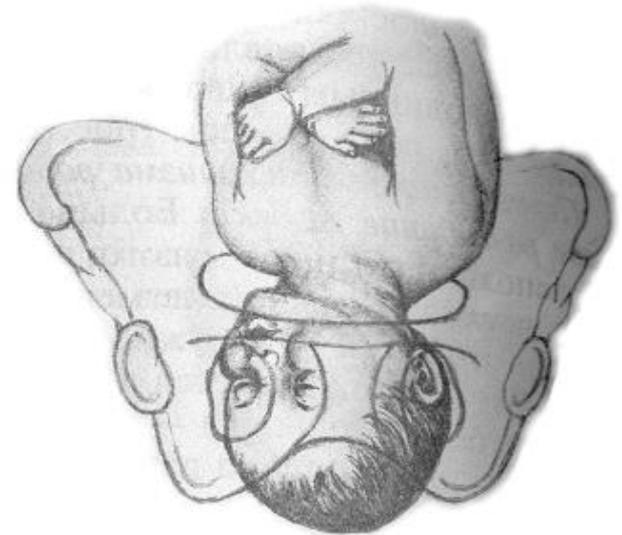
- extension of the head in the plane of the pelvic inlet, with the head set by parts of the frontal and sagittal sutures in the transverse size of the plane of pelvic inlet;
- wired point is the large fontanelle, landmark - the sagittal suture.



II movement of mechanism - internal rotation of the head.



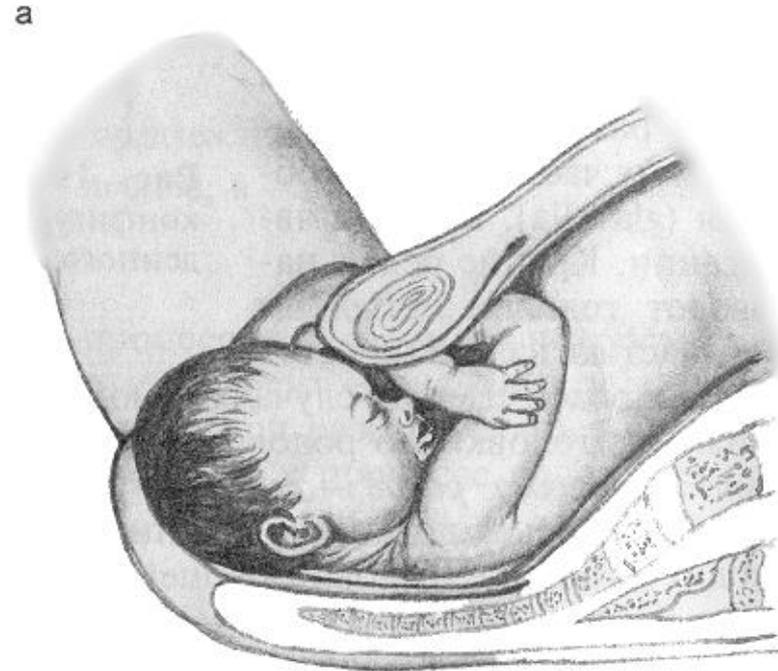
- begins in the pelvic cavity and ends with the establishment of the sagittal suture in the direct size of the plane of pelvic outlet;
- forming the first fixation point - between the lower edge of the symphysis and glabellar (glabella).



III movement of mechanism – flexion of the head.



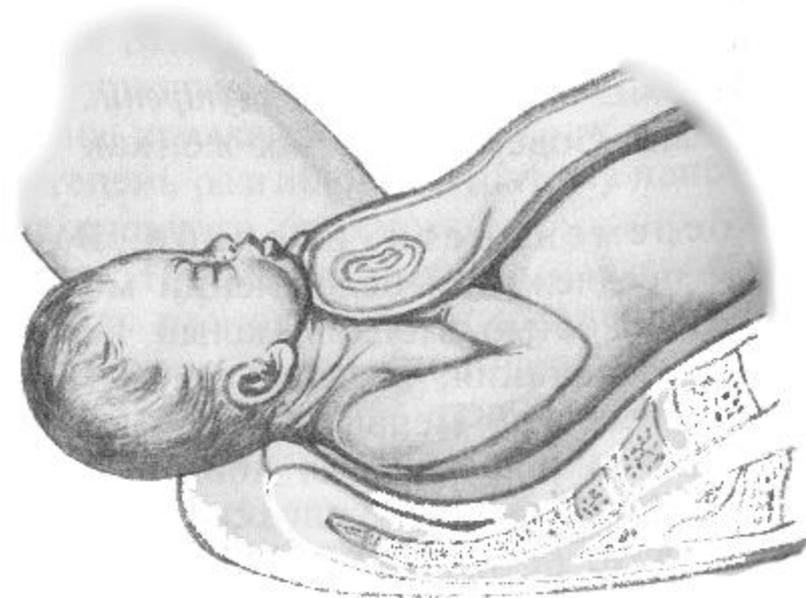
- flexion of the head around the first fixation point. As a result, there is eruption of the large fontanel and parietal bones;
- lasts as long as the occipital tubor engages under the sacrococcygeal joint and forming the second fixation point - between the occipital tubor and the sacrococcygeal joint.



IV movement of mechanism - extension of the head.



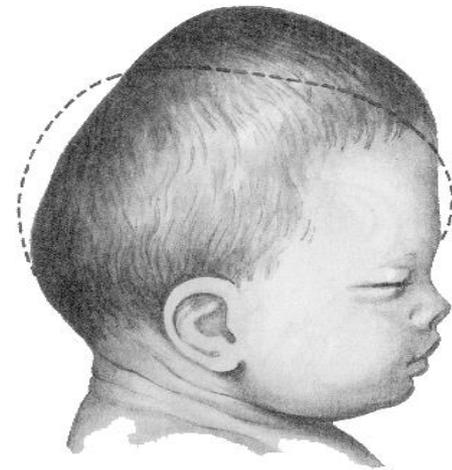
- around the second fixation point occurs extension of the head, the face and chin are born;
- diameter of crowing- direct size of the head - occipito-frontal diameter - 12 cm, circumferentia frontooccipitalis - 34 cm



V movement of mechanism - external rotation of the head and internal of the shoulders.



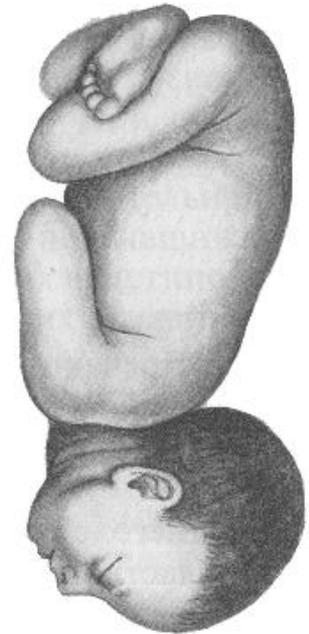
- fetal head is brachycephalic (towering) configuration;
- II period of delivery is protracted at vertex presentation, which can lead to a powerless labor. There is a risk of development of distress or injury of the fetus, and maternal injuries;
- vertex presentation at term pregnancy is considered an indication for cesarean section.
- in modern obstetrics



Brow presentation



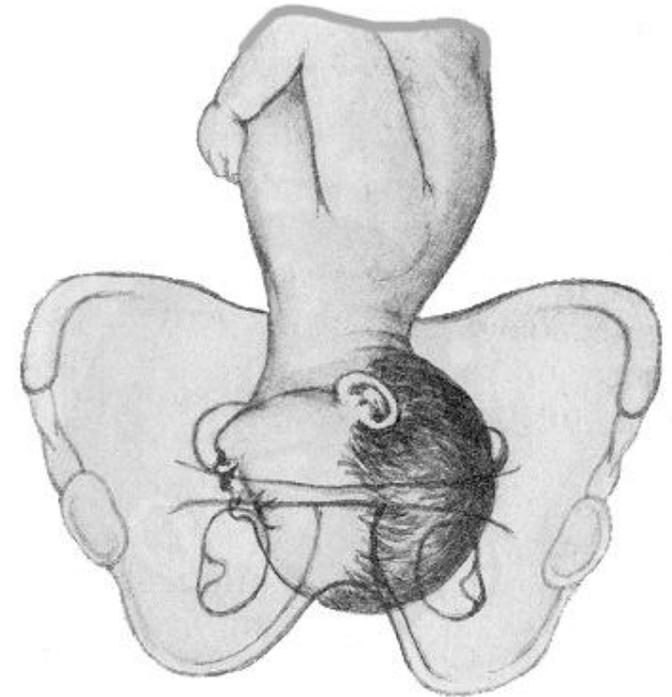
- diagnosed with vaginal examination, determining the forehead and frontal suture, which are located above the pelvic inlet;
- childbirth in brow presentation possible if the fetus aborted or is small.



I movement of mechanism - extension of the head.



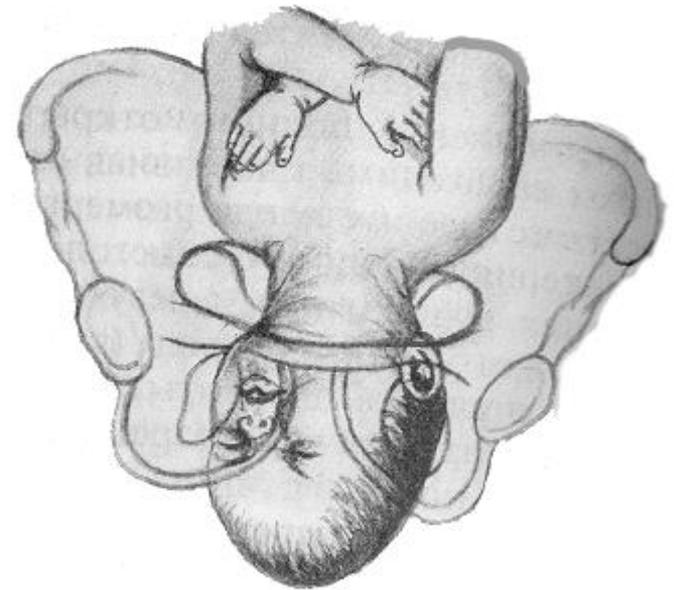
- occurs over the pelvic inlet, frontal suture set in the transverse plane of the pelvic inlet;
- wired point is the forehead, a marking-frontal suture.



II movement of mechanism - internal rotation of the head.



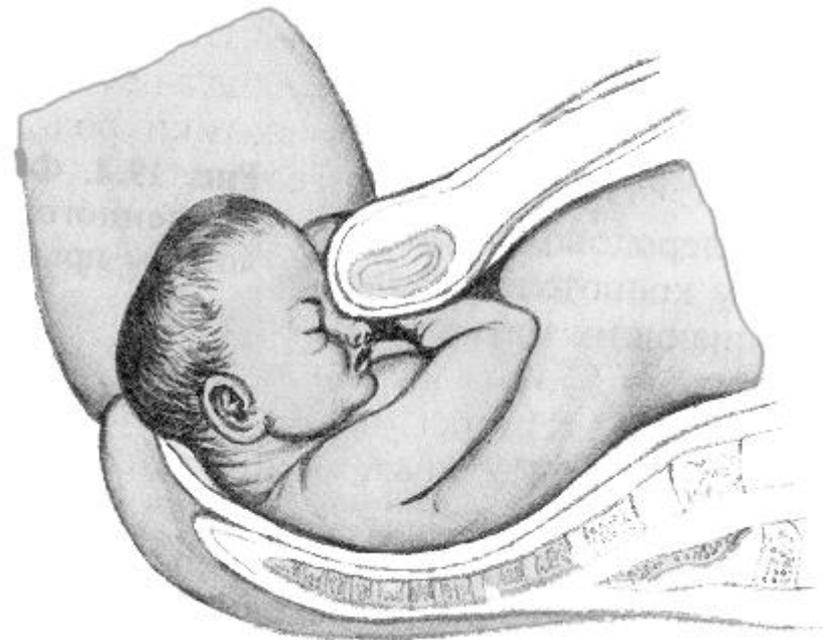
- sinking into the pelvis, head can be rotated by face part anteriorly and occiput part posteriorly only on the pelvic floor;
- frontal suture is set in direct size of the plane of pelvic outlet ;
- forming the first fixation point between the lower edge of the symphysis and the area of the upper jaw (maxilla).



III movement of mechanism – flexing of the head.



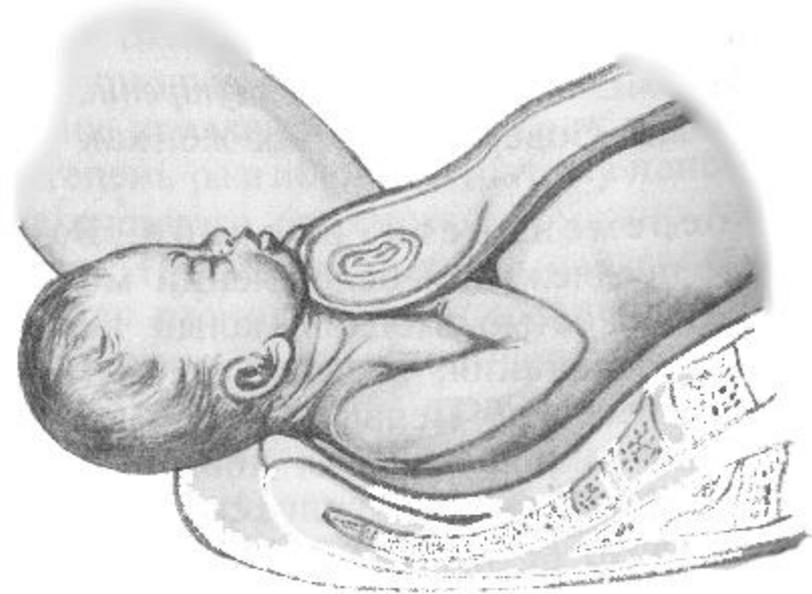
- happening around the fixation point, while born parietal tubers and napex (occiput);
- flexion lasts until the moment of fixation of occiput and the sacrococcygeal joint and forming a second fixation point - between the sacrococcygeal joint and occiput.



IV movement of mechanism - extension of the head.



- around the point of fixation - extension of the head, while the lower part of the face is born;
- Crown diameter - large oblique head size (diameter mentooccipitalis) - 13,5 cm, circumferentia mentooccipitalis - 40 cm



V movement of mechanism – external rotation of the head and internal of the shoulders.



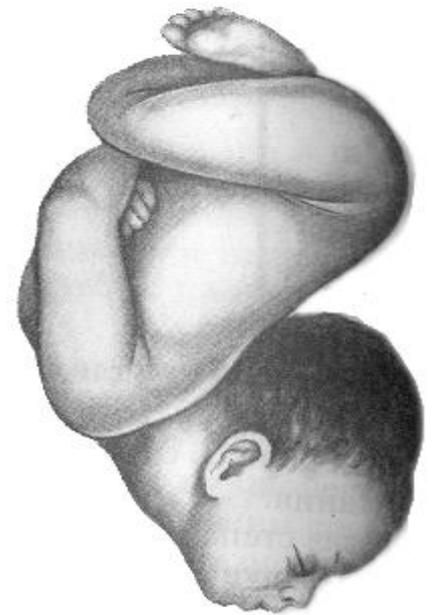
- with brow presentation may experience the following complications:
 - Long duration of labor (more than 30 h), even at small sizes of the fetus;
 - Perineal tears;
 - Formation of vesicovaginal fistula;
 - Rupture of the uterus;
 - Acute fetal distress and neonatal.
- brow presentation is an absolute indication for cesarean section.
- at term pregnancy



Face presentation



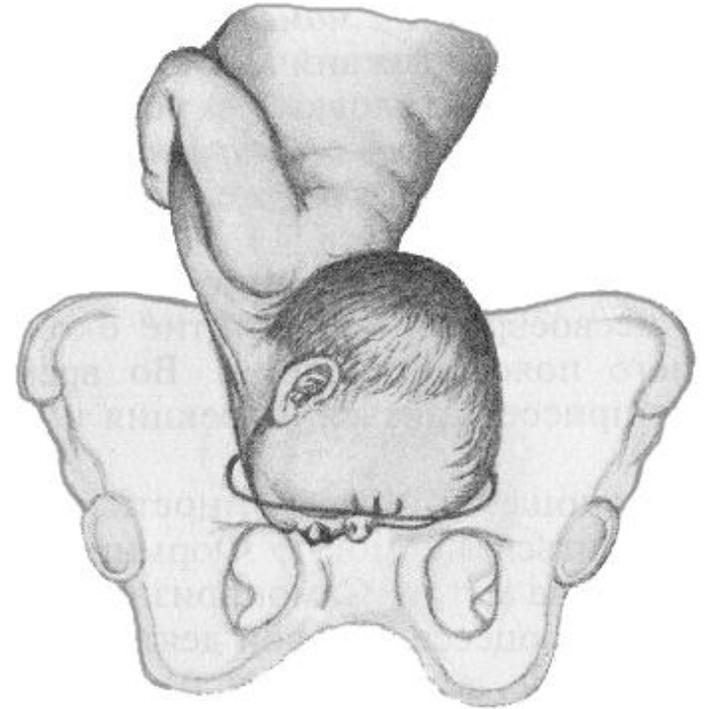
- diagnosed in external OB exam (occiput determined above the pelvic inlet with overturned and almost pinned to the back on the one side and the other - the chin of the fetus), as well as vaginal examination in which probed the forehead, eyebrows, nose, mouth and chin of the fetus.



I movement of mechanism - the maximum extension of the head.



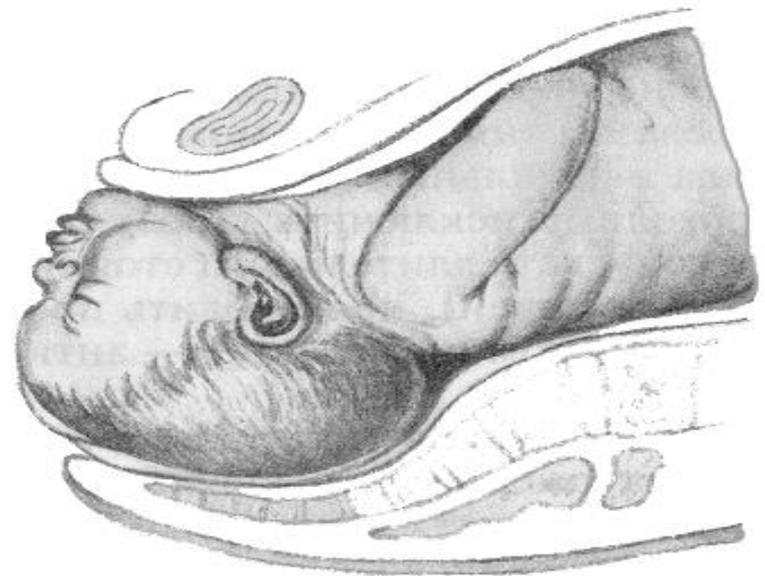
- as a result of the maximum extension - the wired point is chin, and a guide - the front line, which is set in the transverse plane of the pelvic inlet.



II movement of mechanism - internal rotation of the head.



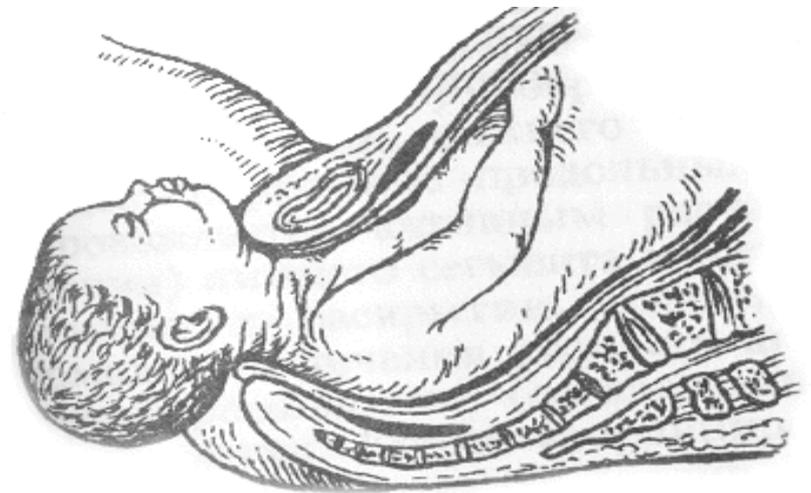
- head descends into the pelvic cavity, and anteriorly rotated by the chin only on the pelvic floor, front line is in the direct size of the plane of pelvic outlet ;
- first erupt (crown) the chin, hyoid area is fixed under the symphysis - formed fixation point.



III movement of mechanism – flexing of the head.



- around the point of fixation - flexing of the head, born nose, forehead, neck, parietal part and and the occiput.



IV movement of mechanism - external rotation of the head and internal of the shoulders.



- head in face presentation erupt by vertical size (diameter verticalis), which is 9.5 cm, circumferentia trachelobregmatica - 32 cm;
- head configuration - sharply dolichocephalic, labor tumor is localized on the face;
- complications: premature rupture of membranes, cord loops prolapse, weakness of labor, fetal distress.



Breech



- prevalence - 4.2%;
- in connection with a large number of complications during childbirth refer to pathologic conditions.



Etiology breech



■ factors by mothers:

- Anomalies of the uterus (the saddle, two-horned, etc.);
- Tumors of the uterus (leiomyoma, etc.);
- Contracted pelvis and pelvic tumors, leading to its decline;
- Five or more labors in anamnesis;
- Increased or decreased tone of the uterus;

■ factors from the fetus:

- Preterm or small for gestational pregnancy;
- Multiple pregnancy;
- Congenital malformations (anencephaly, hydrocephalus, etc.);
- Malposition (head extension, the spine);

■ factors from the placenta, umbilical cord, fetal membranes:

- Placenta preavia;
- Short umbilical cord;
- Multi-or oligohydramnios.

Classification breech



■ Types of breech presentation:

1. Breech presentation:

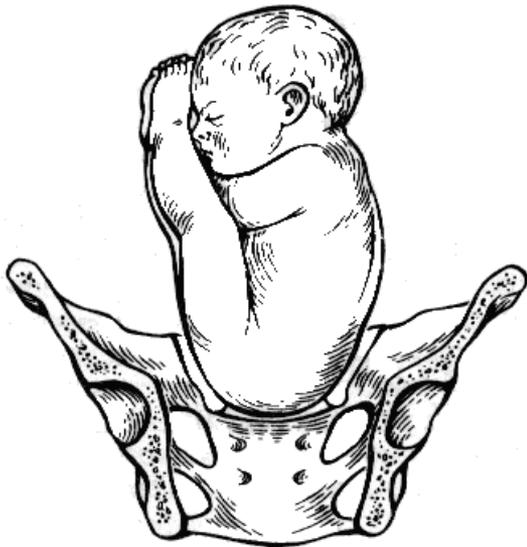
- a) Breech with extended legs (frank breech);
- b) Flexed breech (complete breech);

2. Footling presentation:

- a) complete (presentation of both legs);
- b) incomplete (presentation of one leg);

3. Knee presentation (very rare).

Breech.

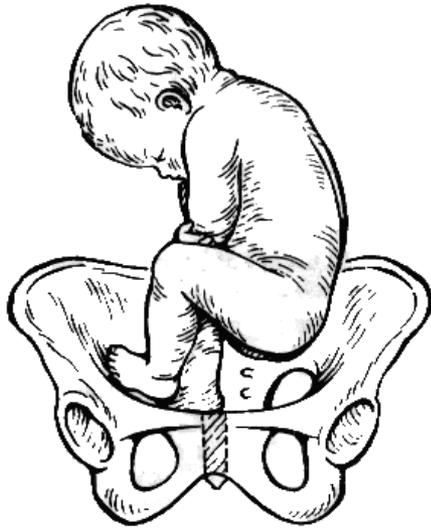


■ Frank breech



■ Flexed breech

Breech.



- Complete footling

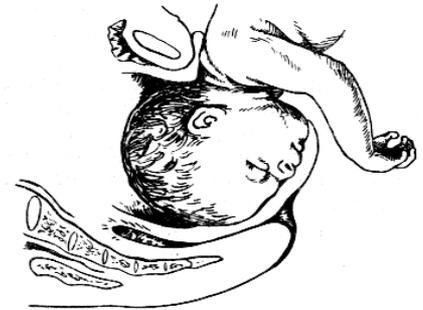
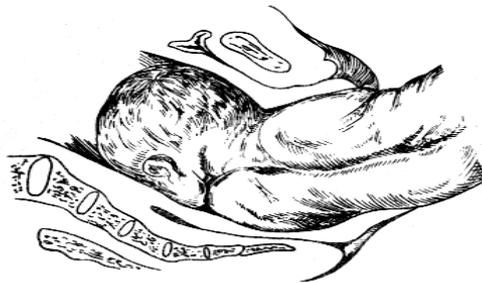
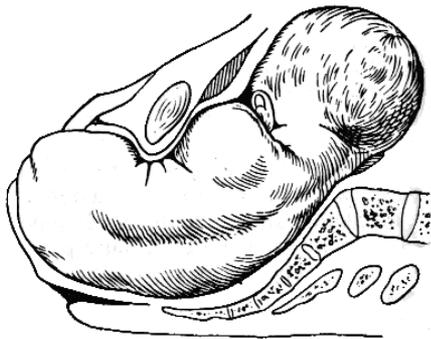


- Incomplete footling

Mechanism of breech delivery consists of three stages:



- the birth of the pelvic portion;
- the birth of the shoulder portion;
- the birth of the head.



The first stage - the birth of the pelvic portion.



- **The first movement- the internal rotation of the buttocks.**
The benchmark is the intertrochanteric line, wired point - front buttock . Performing internal rotation during the transition from the widest part of the pelvic cavity to the narrow, buttocks by the intertrochanteric line of the corresponding position of oblique size pass to the direct size of the plane of the pelvic outlet. Anterior buttock fixed under the pubic symphysis by upper third portion of ilium.
- **The second movement- bending the torso in the lumbosacral region** formed around the fixation point , there is a birth rear buttocks, then - and only the front of the pelvic girdle . Torso born in an oblique size.

The second stage - the birth of the shoulder portion.



- **The first movement- internal rotation of buttocks.** Making internal rotation, shoulders by biacromial line pass through the same oblique size as the buttocks, and inserted into the direct size of the plane of the pelvic outlet. Anterior shoulder is fixed to the lower edge of the pubic symphysis by upper third of the humerus.
- **The second movement -flexing of the trunk in the thoracic region.** Flexion around the fixation point is in the thoracic spine, posterior shoulder and hand is born .

The third stage - the birth of the head.



- **The first movement - the internal rotation of the head.** Sagittal suture of the head is in a transverse size in the plane of pelvic inlet until the birth of the shoulder portion. With internal rotation sagittal suture passes through the opposite to position the oblique size and inserted in direct size of the plane of pelvic outlet. Suboccipital fossa fixed under the pubic.
- **The second movement**- flexing of the **head**. Flexion in the cervical spine against the fixation point, the first face is born , then – occiput and head .



- Labor tumor is localized on the anterior buttock, when footling - on the anterior leg;
- with breech presentation- buttocks engaged by its transverse size is 9 cm, and the corresponding circle - 28 cm; head crown by the small oblique size - 9.5 cm (circumference - 32 cm).

Diagnosis of breech



- external and internal obstetric study;
- ultrasonography;
- amnioscopy.

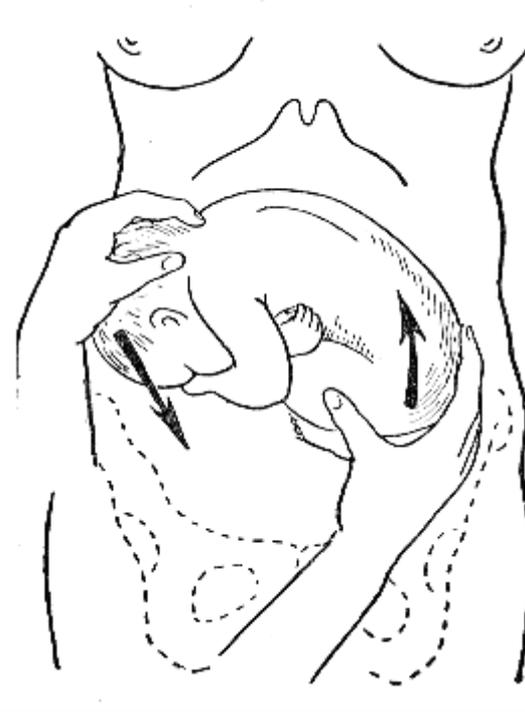


Complications in breech childbirth.



- premature rupture of the amniotic membrane;
- Prolapse of small parts of the fetus and loops of umbilical cord before complete disclosure of uterine OS;
- weakness of labor;
- infringement of the head during the reflexive contraction of the cervix;
- crowding (extension) of the hands;
- occurrence of posterior view in breech or extension head presentation;
- Labor injuries of mother and fetus;
- Progressing of fetal distress and death.

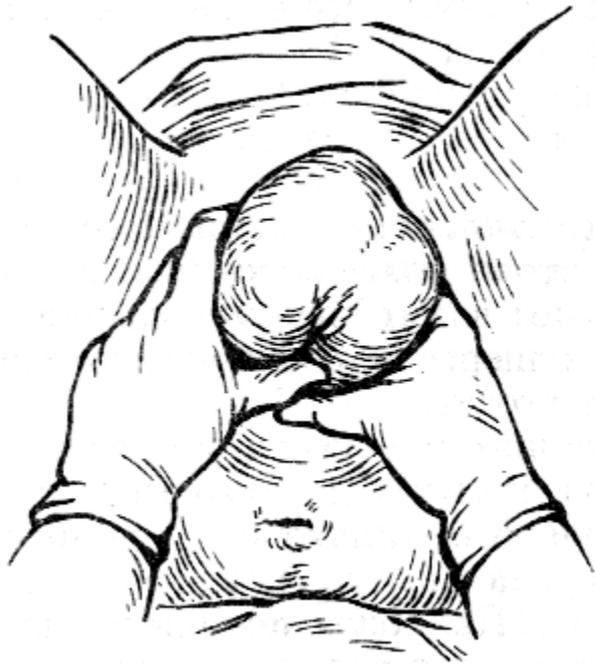
External version



Management of labor in breech presentation



- Tsovyanov's method



- management of labor on Tsovyanov

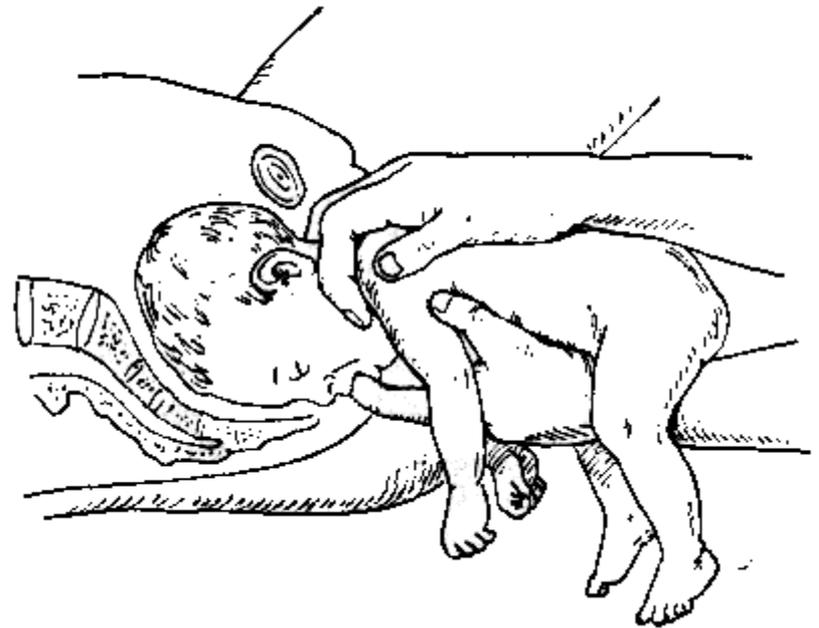


Management of labor in breech presentation

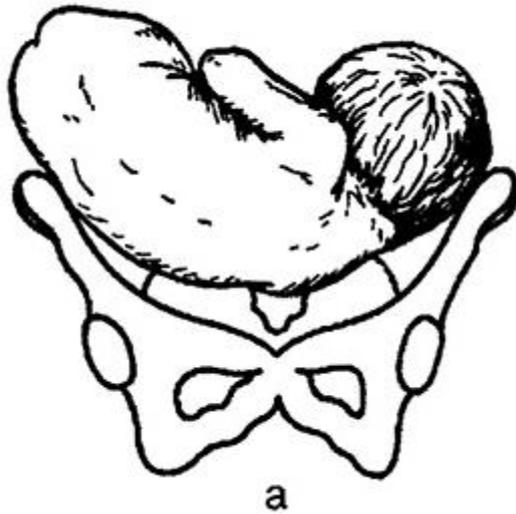


- classical manual assistant

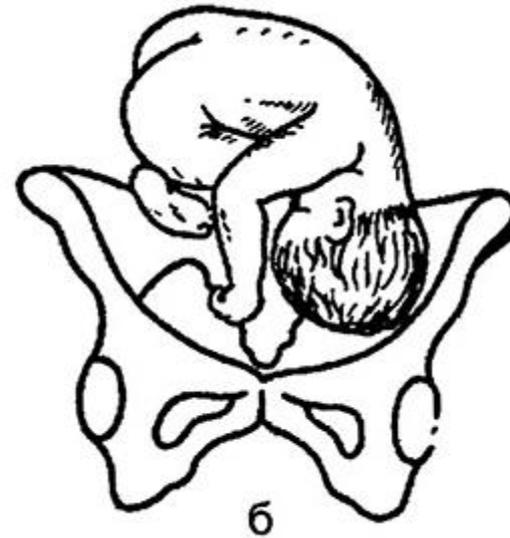
- manual method by Mauriceau -Lachapelle



Malposition

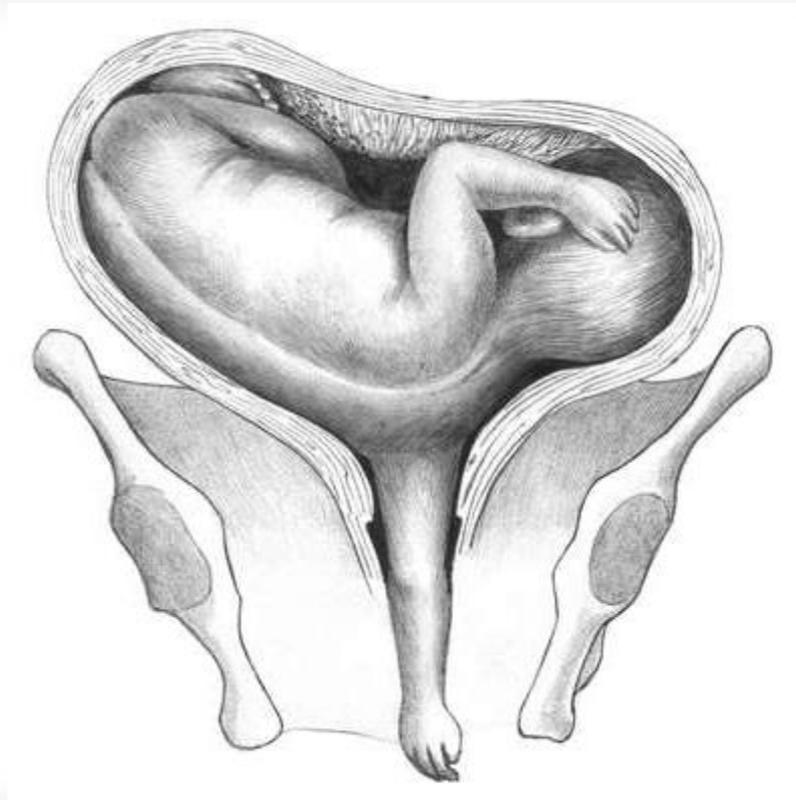


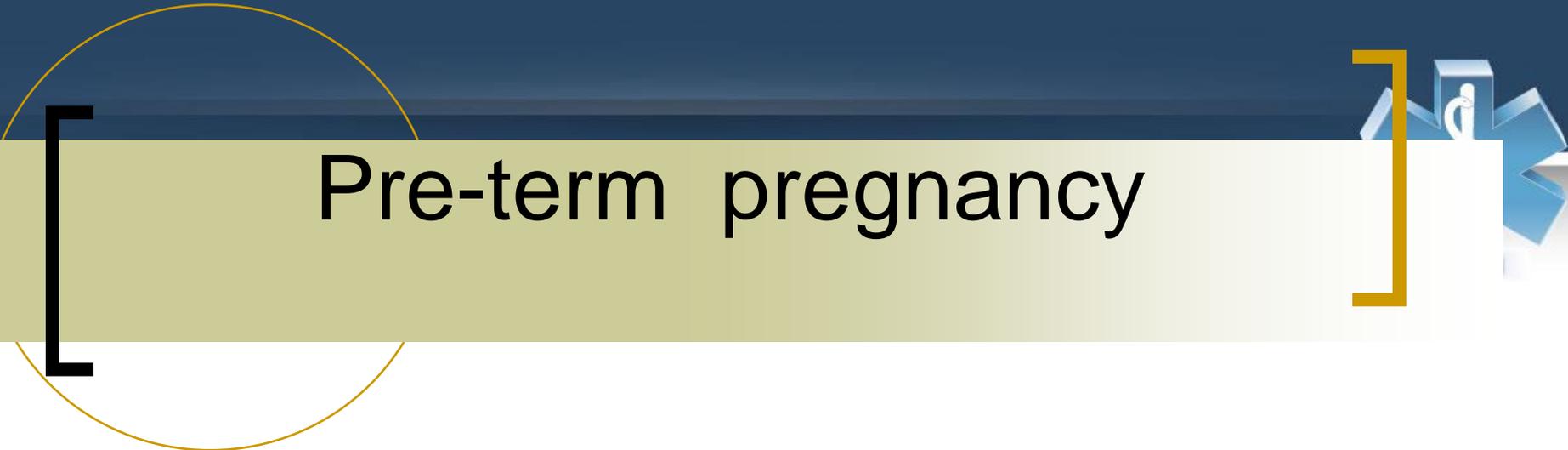
■ cross



■ oblique

Neglected shoulder presentation





Pre-term pregnancy



Miscarriage –spontaneous abortion in early (up to 12 weeks) and late terms (at 13-22 weeks). Pre-term delivery is delivery with spontaneous beginning, progressing birth activity and delivering a fetus weighing 500 g and more at the term of pregnancy from 22 full to 37 full weeks.

[Etiology]



- genetic factors and chromosomal abnormalities
- endocrine pathology
- infections
- pathology of the uterus
- immunological disorders
- pathology of pregnancy
- extragenital diseases during pregnancy

Types of miscarriage:

- 1-st –detachment of the fetal egg
- 2-nd-labour
- 3-rd-delivery with short duration due to isthmico-cervical insufficiency
- 4-th-failed abortion with primary fetal death (at any gestational age)



Classification

- threatened abortion(abortus imminens)
- incipient abortion(abortus incipiens)
- progressing abortion(abortus progrediens)
- incomplete abortion (abortus incompletus)
- complete abortion (abortus completus)
- missed abortion – fetal death with the fetal egg staying in the uterus.



Threatened abortion (abortus imminens)



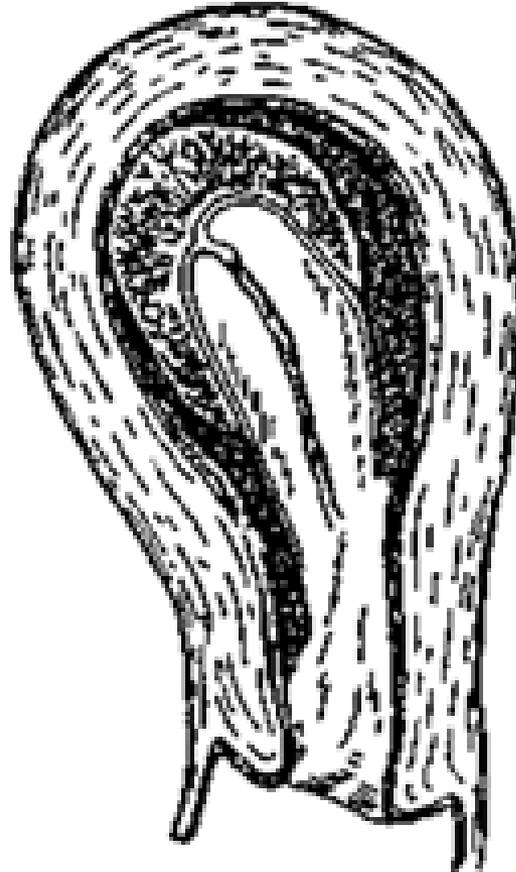
Incipient abortion(abortus incipient)



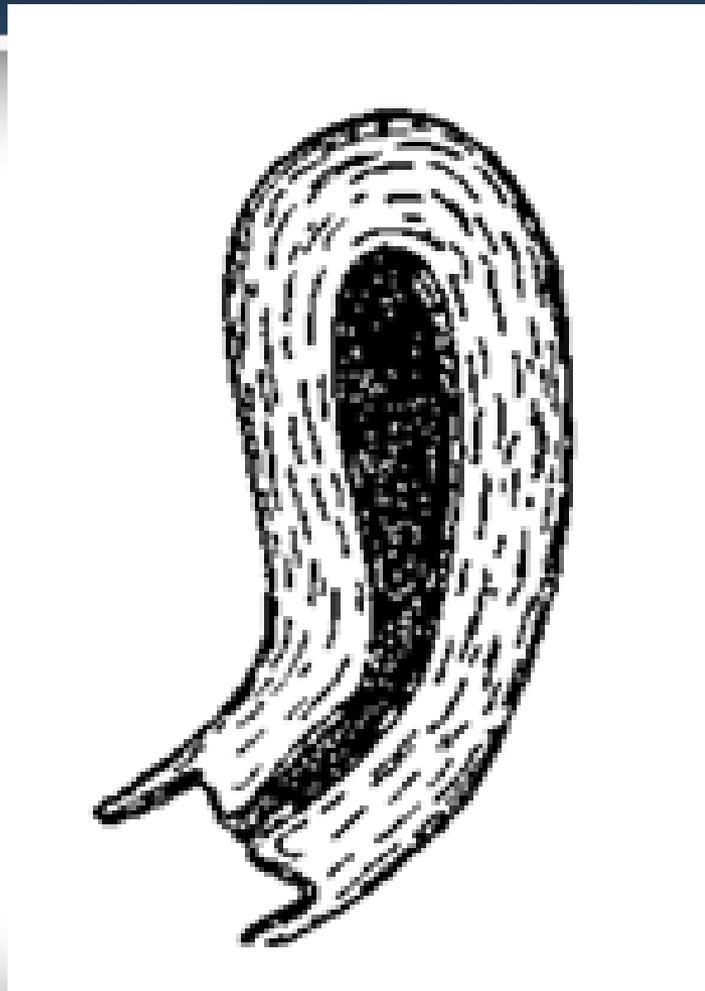
Progressing abortion(abortus progrediens)



Incomplete abortion (abortus incompletus)



Complete abortion (abortus completus)

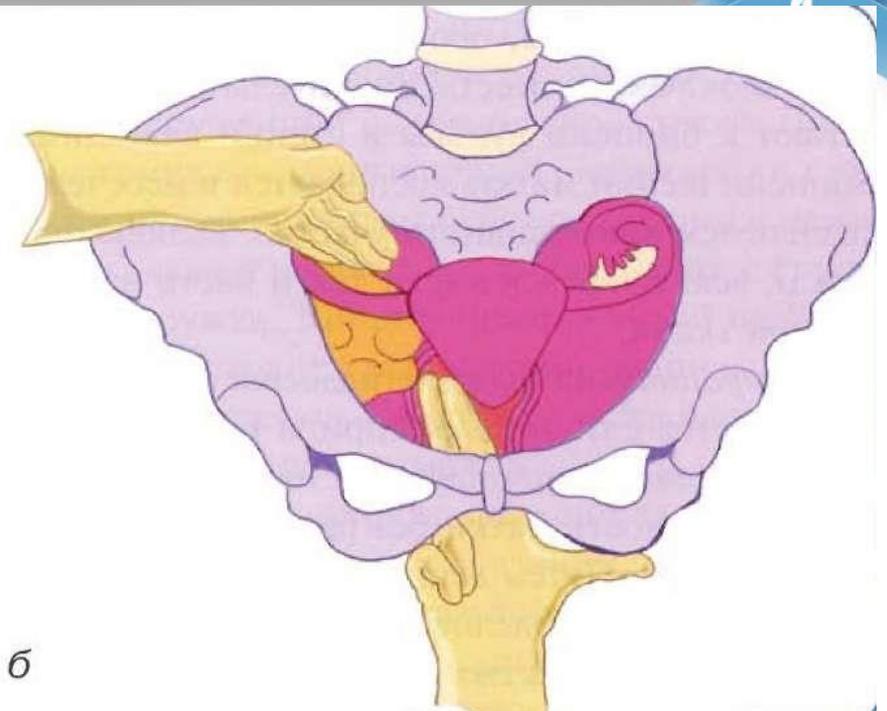
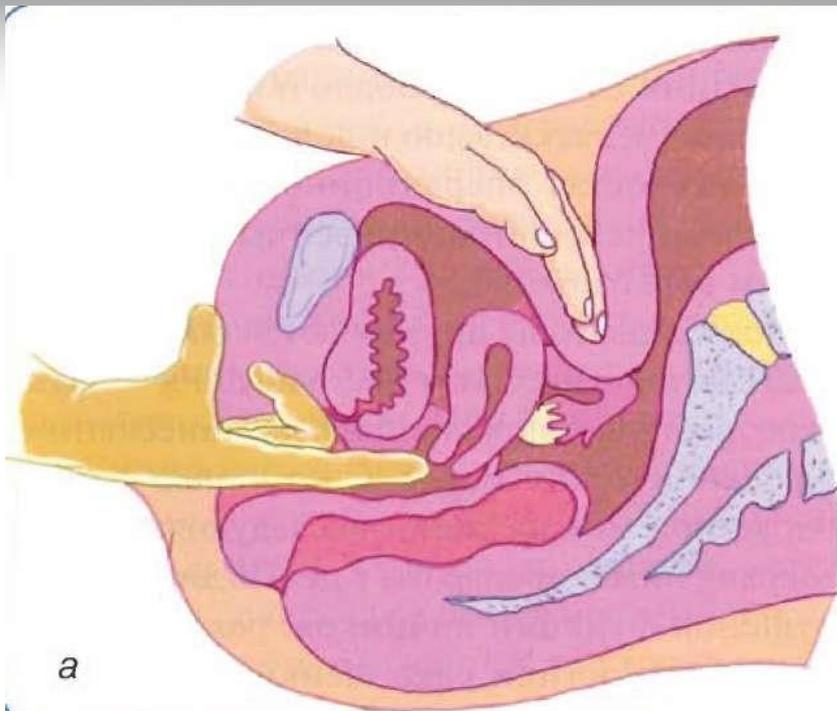


[Diagnostics]

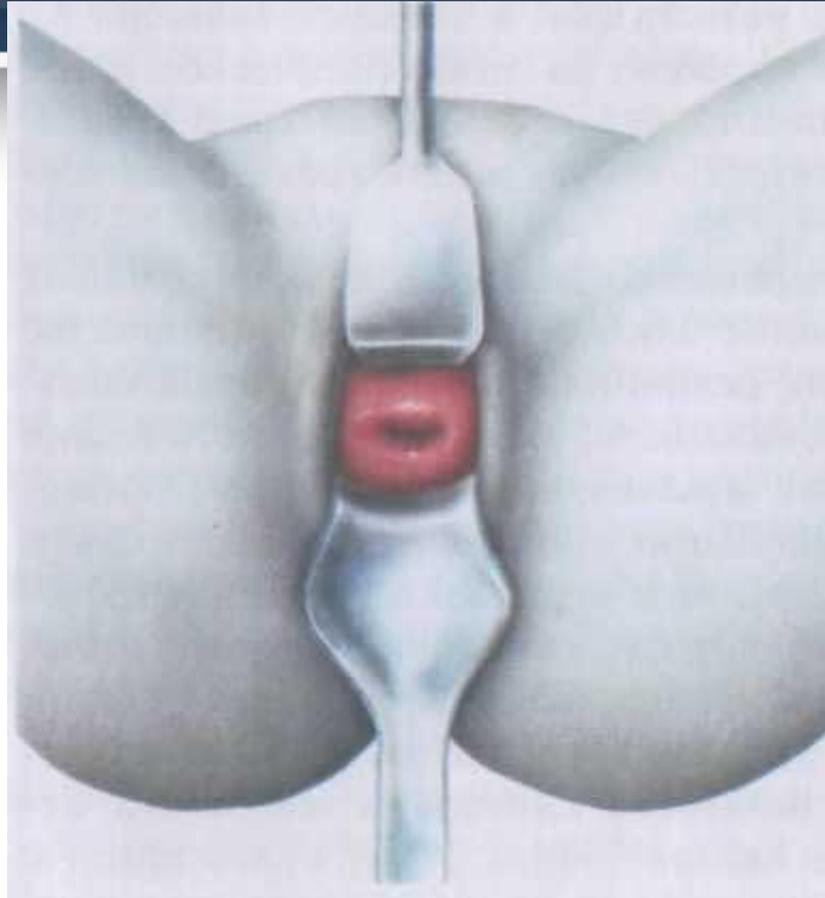


- Complaints-pain syndrome, bleeding
- Bimanual and specular examination: condition of the cervix, uterus
- USE
- Laboratory methods: inadequacy of HGT level in blood serum with the pregnancy term, decrease of progesterone level, colpocytogram change.

Bimanual examination



[Specular examination]



[Ultrasound examination]



Treatment of early spontaneous abortions



- Hospitalization
- Bed rest
- Psychotherapy and sedatives (Valerian or motherwort tincture, 10-20 drops 2-3 times a day; Persen, 1 pill 2-3 times a day; Phytosed, 1 teaspoon 2-3 times a day)
- Spasmolytic therapy: Papaverine, Viburcol- rectal suppositories
- Vitamin therapy: vitamin E 100-200mg a day orally in the capsules, multivitamin preparations (Pregnavit, Elevit, Materna, Theravit)
- Hormonal therapy

[Hormonal preparations]



- gestagenic preparations: Utrogestan 100 mg 2-3 times a day per vagina or orally; 1% progesterone 1.0 i.m.; Didrogesterone.
- estrogen: Estradiol valerate (1-2 pills a day) only by strict indications
- HGT (Pregnil, Prophase)
- at hyperandrogenemia corticosteroids application is indicated: Prednisolone-1.25-5 mg, Dexamethasone-0.125-0.5 mg a day orally.

Treatment of late spontaneous abortions



Tocolytic therapy (inhibiting uterine activity):

- Magnesium sulfate (after 12 weeks) i.v. drop-by-drop (20 ml 25% MgSO₄ with 200 ml of physiologic saline); Magne B6 2 capsules 3 times a day);
- selective β ₂-adrenoceptor agonists (from 14-16 weeks), Gynipral in the dose of 10mcg (2ml) or 25 mcg (5ml) with 200-400 ml of physiologic saline and Ginipral pills (one pill every 3 h, and then in 4-6 h)



Isthmicocervical insufficiency (incompetence) - is a pathological condition, which arises as a result of incompetence of the closing function of the cervix and accompanied by painless effacement and dilatation of the cervix.

[Reasons]

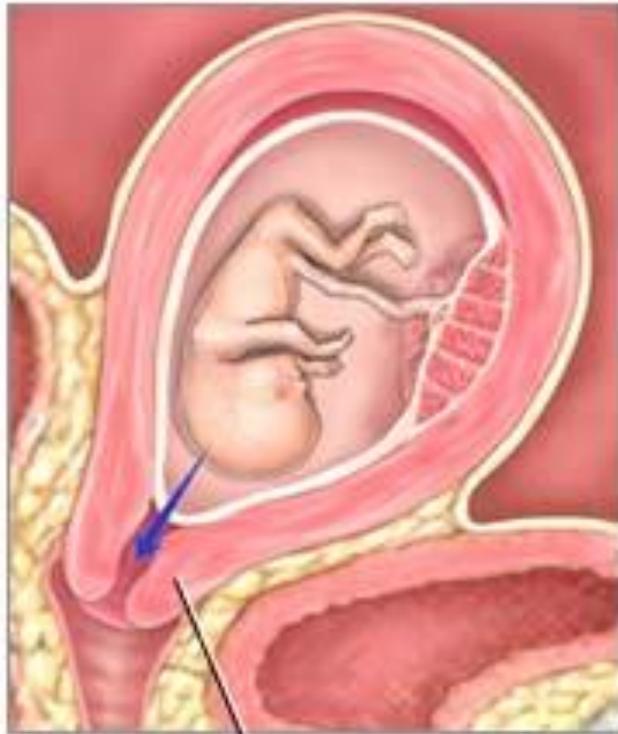


- Surgical or other injuries
- Malformations
- Endocrine disorders

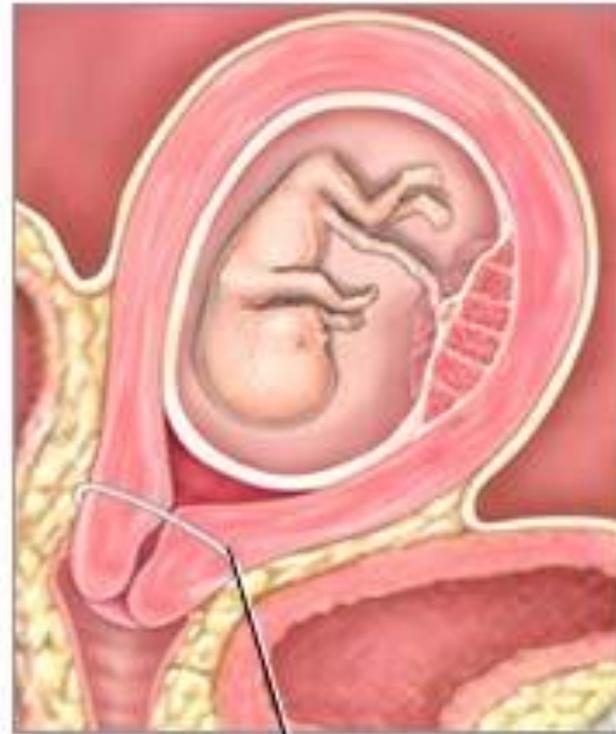
Treatment



- 1. Conservative (hormonal)
- 2. Surgical it is placing a circular suture on the cervix at the level of its internal os (Macdonald's, Shirodcar's, Liubimova's operations)



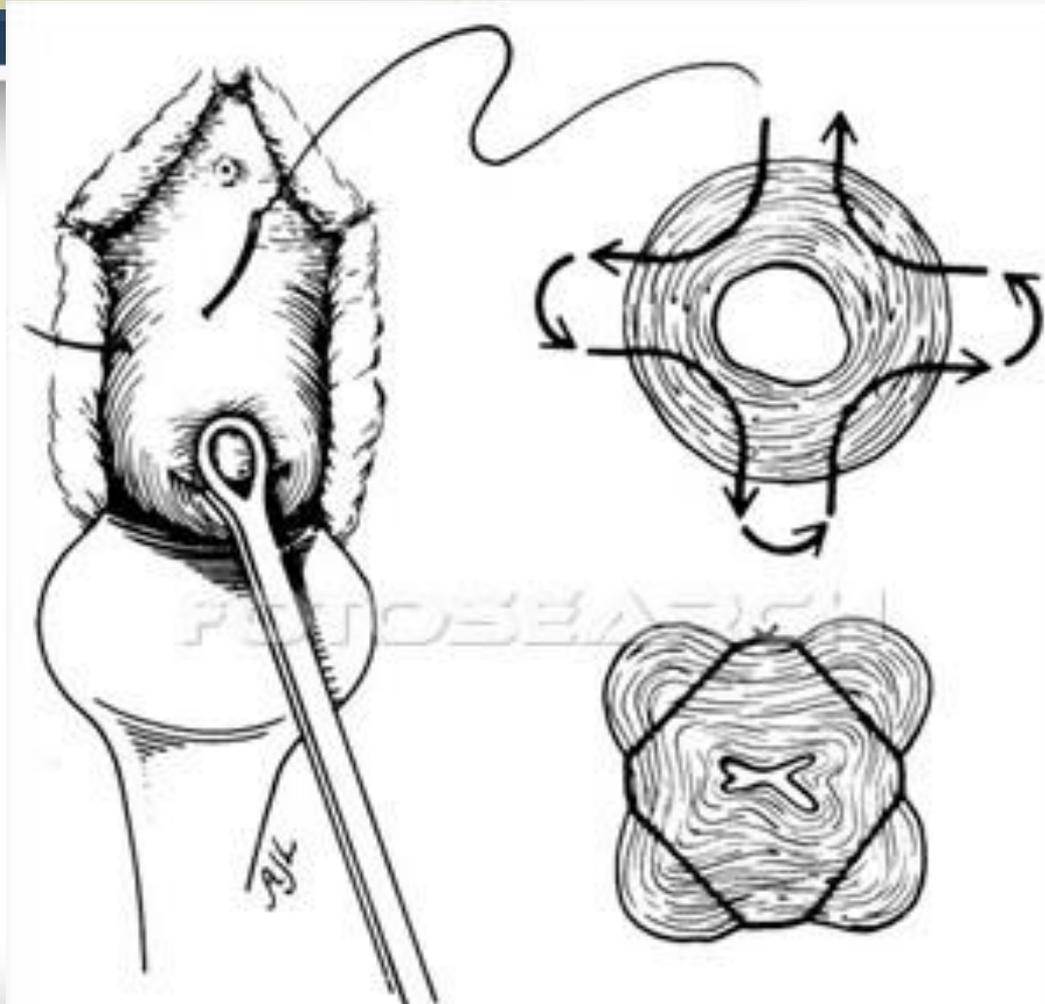
Open cervix



Cerclage



Operative treatment



Conditions for surgical treatment

- 1. optimal term of operation-12-16 weeks
- 2. bacterioscopic and bacteriological investigation of material from genitourinary tract
- 3. tocolytic therapy during operation and in postoperative period
- 4. consideration of contraindications to operation.



Premature labour

- 22-27 weeks
- 28-33 weeks
- 34-37 weeks



Prediction of preterm labour



- Uterine contractions ≥ 4 per hour
- Cervical length ≤ 2.5 cm
- Presence of fibronectin in the cervical discharge between 24-34 weeks
- Bishop score ≥ 4
- Cervical dilatation > 2 cm and effacement (80%)
- Vaginal bleeding

Peculiarities of preterm labour



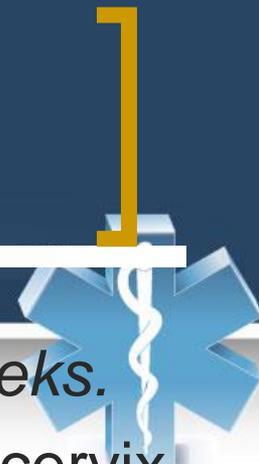
1. The pregnant woman is transported to the hospital
2. Corticosteroids therapy (reduce the risk of neonatal respiratory distress-syndrome)

Indicated from 24 till 34 weeks of pregnancy:

- under the threat of preterm labour- i.m. Dexamethasone 6 mg every 6h (24 mg per course) or Betamethasone 12mg every 24 h (24 mg per course)
- in case of preterm labour- i.m. dexamethasone 12 mg every 6 h (24mg per course) or Betamethasone 12 mg every 12 h (24 mg per course)

3. Tocolytic therapy is carried out till 34 weeks of pregnancy at cervical dilatation less than 3 cm

Tocolytic therapy: oxytocin antagonists, β -mimetics, calcium canal-blocking agents, and magnesium sulfate



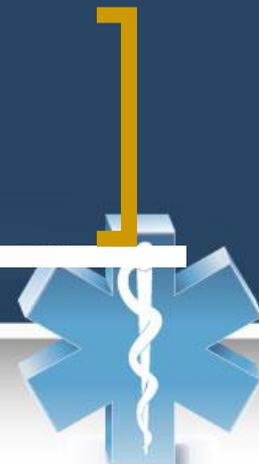
Conservative tactic- prolongation of pregnancy till 36 weeks.

Conditions: amniotic fluid is not escape, dilatation of the cervix not more then 4 cm, satisfactory condition of the fetus, absent of severe somatic pathology, inflamaton.

In the case of escape of amniotic fluid in term of pregnancy till 34 weeks prolongation of pregnancy with rules of aseptic and intravaginal supositorias or pills with antibacterial influence.

Active tactic use if there are severe diseases of pregnant, gestosis, fetus hypoxia, defects of development and fetus death, signs of infection

Silverman score



Upper Chest Retractions	<input type="text" value="Synchronized"/>
Lower Chest Retractions	<input type="text" value="None"/>
Xiphoid Retractions	<input type="text" value="Just visible"/>
Nasal Flaring	<input type="text" value="Minimal"/>
Expiratory Grunting	<input type="text" value="Minimal"/>

Post-term pregnancy-pregnancy over 42 weeks.



Syndrome Belentan-Runge

- increase density of the skull bones
- stricture of skull`s sutures and fontanel
- absent of vernix caseosa
- reduction of subcutaneous fatty tissue
- decline of turgor and peeling of the skin
- long nails
- thick cartilage of ears and nose

Thank you for
attention!

