Obstetrics and Gynaecology history and physical examination

Dr Lubna Batayneh
Obstetrics and Gynaecology department
The Hashemite University

Introduction

- History and physical examination form the basis for patients' evaluation and clinical management
- Both the mother and the fetus are assessed
- Provides an insight on the quality of management during the course of her pregnancy
- Rapport is established
- Opportunity for counselling may arise

Terminology

- **Gravidity**

  Total number of pregnancies irrespective of the outcome

  (deliveries, miscarriages, ectopic pregnancies, molar pregnancies, and current pregnancy)

- **Parity**

  Total number of previous pregnancies carried to the *age of viability (in Jordan = 24 weeks)*

  A multiple pregnancy (twins, triplets) still counts as parity of 1

- **Miscarriage**

  Pregnancy loss before the age of viability (< 24 weeks)

- **Ectopic pregnancy**

  A pregnancy where the embryo implants outside the uterine cavity, most commonly in the fallopian tube

- **Molar pregnancy**

  Abnormal growth of trophoblasts

- Example:

  Mrs Laila is now 28 weeks pregnant; she has 1 girl and 1 boy at home, and a previous molar pregnancy

  G: 4

  P: 2

  +: 1

  G4P2+1

- Example:

  Mrs Marie is now 13 weeks pregnant; she has 2 boys, and a girl died at 1 month old, previously had 1 miscarriage, and 1 ectopic pregnancy

  Gravida: 6

  Para: 3

  + : 2

  G6P3+2

- Example:

  Mrs Monica is in her second pregnancy, previous pregnancy the baby died in utero at 32 weeks

  G: 2

  P:1

  G2P1

- Gestational age:

  Measured in *<u>weeks</u>*

  From the first day of the patient's last menstrual period (LMP) to the current date

- Expected date of delivery (EDD)

Calculated by a formula after obtaining the patient's LMP

LMP to EDD:

280 days

40 weeks

- Naegele's rule:

LMP (DD/MM/YY)

Add 7 days and:

Subtract 3 months and add one year

OR, add 9 months

EDD= DD+7/MM-3/YY+1

History

- Tips for good history taking:
  - Ensure privacy and confidentiality
  - Greet the patient
  - Explain to the patient what are you going to do
  - Obtain a verbal consent
  - Use patient’s own words in communicating with her
  - Be chronologic
  - Be in charge
  - Do not be in a hurry!

- Includes:

1. Patient profile
2. Presenting/chief complaint
3. History of presenting illness (Include history of current pregnancy in obstetric cases)
4. Past obstetric history
5. Gynaecological history

6. Past medical history
7. Past surgical history
8. Medications
9. Allergies
10. Family history
11. Social history
12. Systematic review (relevant)
13. Summary

Patient profile

- Name/title
- Age
- Occupation
- Address
- Marital status
- Gravidity/parity (if currently pregnant also include the GA)
- Blood group (in pregnants, if relevant)

Presenting complaint

- If there's more than one, mention the most significant/reason of admission first and then mention in chronological order

- Mention the presenting complaint + duration + date and route of admission

- There may not be any;
  - May have come for booking
  - Routine antenatal follow up visit

History of presenting illness

- Analysis of the chief complaint
- History of events that lead to the admission, previous investigations and treatments offered
- Course of hospitalization (investigations –labs and imaging, treatments, procedures or surgeries, consultations, plan of management)

- In obstetric cases also include:
    - Planned or not, spontaneous or assisted
    - When she first knew she was pregnant
    - What investigations she did to confirm the pregnancy
    - Details of any illness during this period/ treatments/ hospital admissions
    - If she was booked? If yes; where? If not; why?
    - Results of her booking investigations
        - FBC, BG, Urine analysis and culture, HBsAg, Rubella IGg

- Total number of antenatal visits prior to presentation
- Routine medications
- Haematinics (iron, folate)
- Ultrasound – Dating and Latest

Past obstetric history

- Details of every previous pregnancy (in a chronological order):
    - Year
    - Outcome: delivery, miscarriage, ectopic, or molar pregnancy

- Delivery?
  - Term/preterm, GA at delivery
  - Mode of delivery (if CS mention the indication, emergency/elective)
  - Boy/girl
  - Weight at birth and any congenital anomalies –if present
  - NICU/nursery (if NICU: reason and management)
  - Any complications and their management (antenatal, intrapartum, or postpartum)
  - Breastfeeding

- If miscarriage, ectopic, or molar pregnancy –also mention events that lead to diagnosis, gestational age at diagnosis, management, follow-up –if needed, and any complications

Past Gynaecological history

- Age at menarche
- Menstrual cycle assessment (regularity, length of cycle, menstruation, dysmenorrhea)
- Intermenstrual bleeding
- Coital problems (dyspareunia, postcoital bleeding)
- Cervical screening history –has she ever done it? If yes when was the last time, the result and any treatment if needed
- Contraception history
- Abnormal vaginal discharge
- Any previous gynaecological complaints, the treatment offered

- If the patient is post menopausal:
    - Age at menopause
    - Symptoms experienced
    - Any treatments –HRT or others

Past medical history

- Medical illnesses
  - When was she diagnosed
  - Treatments needed
  - Ask specifically about: diabetes, hypertension, epilepsy, thalassemia

- Previous blood transfusions –mention complications if there was any

Past surgical history

- Previous surgeries
    - Emergency/elective
    - Indication for the operation
    - Complications if any
    - Recovery

Medications

- Chronic use
- Previous use (if significant)
- In pregnancy: folic acid intake, vitamin D

Allergies

- To drugs or other materials
  - How was she diagnosed
  - Severity of allergy

Family history

- Family history of concern (cancers?) or those related to current condition

- In pregnancy such FH can be relevant:
  - Twinning
  - Gestational DM
  - Sickle-cell disease
  - Pregnancy complications: Pre-eclampsia, Post-date …

Social history

- Marital status
  - Single mother?
- Age of husband
- Husband’s occupation
- Address, residence: ventilation, pets, floor
- Smoking

Relevant review of systems

- General –Headache, fever
- Cardiorespiratory –Chest pain, cough, palpitations
- GI –Abdominal pain, dyspepsia, appetite, nausea/vomiting
- GU –Frequency, dysuria, nocturia, haematuria
- Locomotor –Joint pain, muscle cramps
- Neurological –Dizziness, eyesight, paraesthesia

Summary

- Three to four sentences!
  - Patient’s name
  - Age
  - GA if pregnant
  - Current problem/situation
  - Actions taken – investigations and plan

- Example:

I have presented Mrs Smith; a 32-year-old G3P2 currently 29 weeks pregnant. She presented to the emergency department complaining of lower abdominal pain, she was febrile, diagnosed with acute UTI after urine analysis and culture sensitivity, and was admitted for IV antibiotics.

Physical examination in obstetrics

- Before you carry on with the exam:
  - Explain the steps of the examination to the patient as this reduces anxiety and enhances cooperation
  - Obtain verbal consent
  - Maintain privacy
  - A chaperone present
  - Ensure hygiene
  - Good lighting
  - The patient should be advised to void as an empty bladder promotes comfort and allows for more productive examination, and the distended bladder can obscure fetal contour
  - Prepare the equipment, such as measuring tape, Pinard stethoscope or Doppler transducer, and ultrasound gel
  - Adequate exposure of the gravid abdomen from the xiphisternum to the pubic symphysis

Approach

- Positioning:
  - Semi-sitting left lateral position with the knees bent supported by a pillow
  - This affords the greatest comfort, as well as protection from the negative effects of the weight of the gravid uterus on abdominal organs and vessels

- Equipment:
  - The examiner’s hands are the “primary equipment” for examination of the pregnant woman (should be warmed and gentle motions); avoid tender areas of the body until the end of the examination
  - Speculum
  - Tape measure
  - Stethoscope/ hand-held doppler

General examination

- Appearance
  - Inspection of overall health, nutritional status, emotional state
- Weight and height, calculate BMI
- Vital signs
  - Blood pressure
  - Pulse rate
  - Respiratory rate +/- Oxygen saturation
  - Temperature

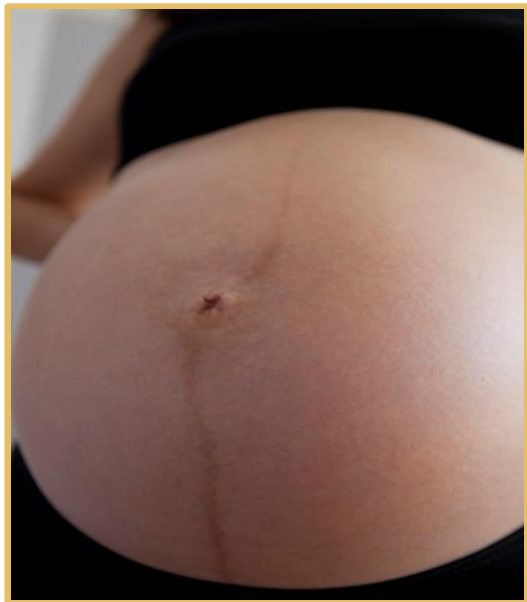
Abdominal examination

1. **Inspection:**

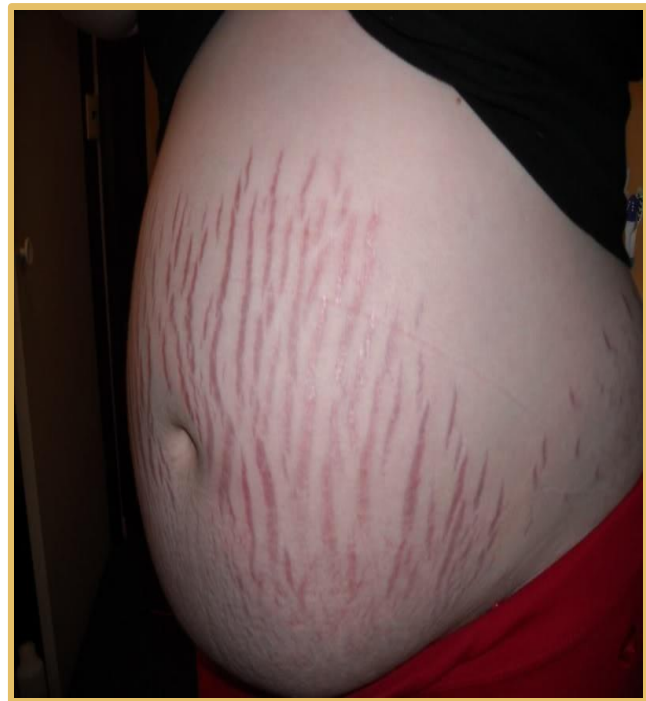
   - Contour, symmetry, movements with respiration
   - Skin changes, discoloration, scars, dilated veins, hair distribution, and any swellings

- Skin pigmentation changes:

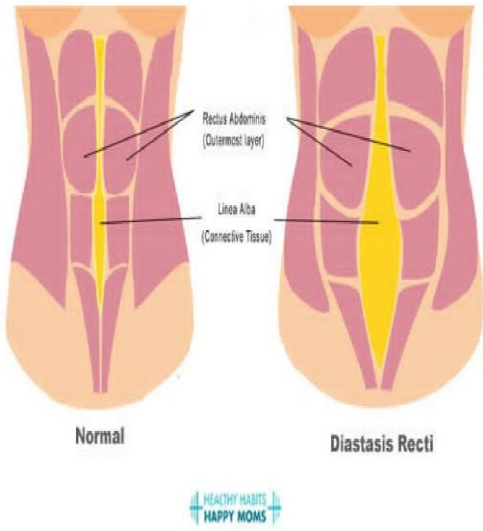
  - *Linea Nigra*: darkening of the linea alba (midline of the abdominal skin from xiphoid to symphysis pubis) due to stimulation of melanophores by increase in melanocyte stimulating hormone (MSH)



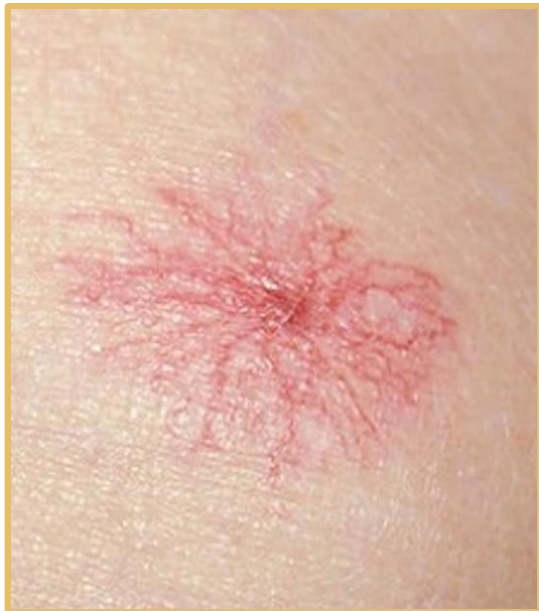
- *Striae Gravidarum "stretch marks"*: separation of the underlying collagen tissue (secondary to stretching of the abdomen) and appear as irregular scars, usually red or purple and become silvery after delivery
  - Associated risk factors are weight gain during pregnancy, younger maternal age, and family history.



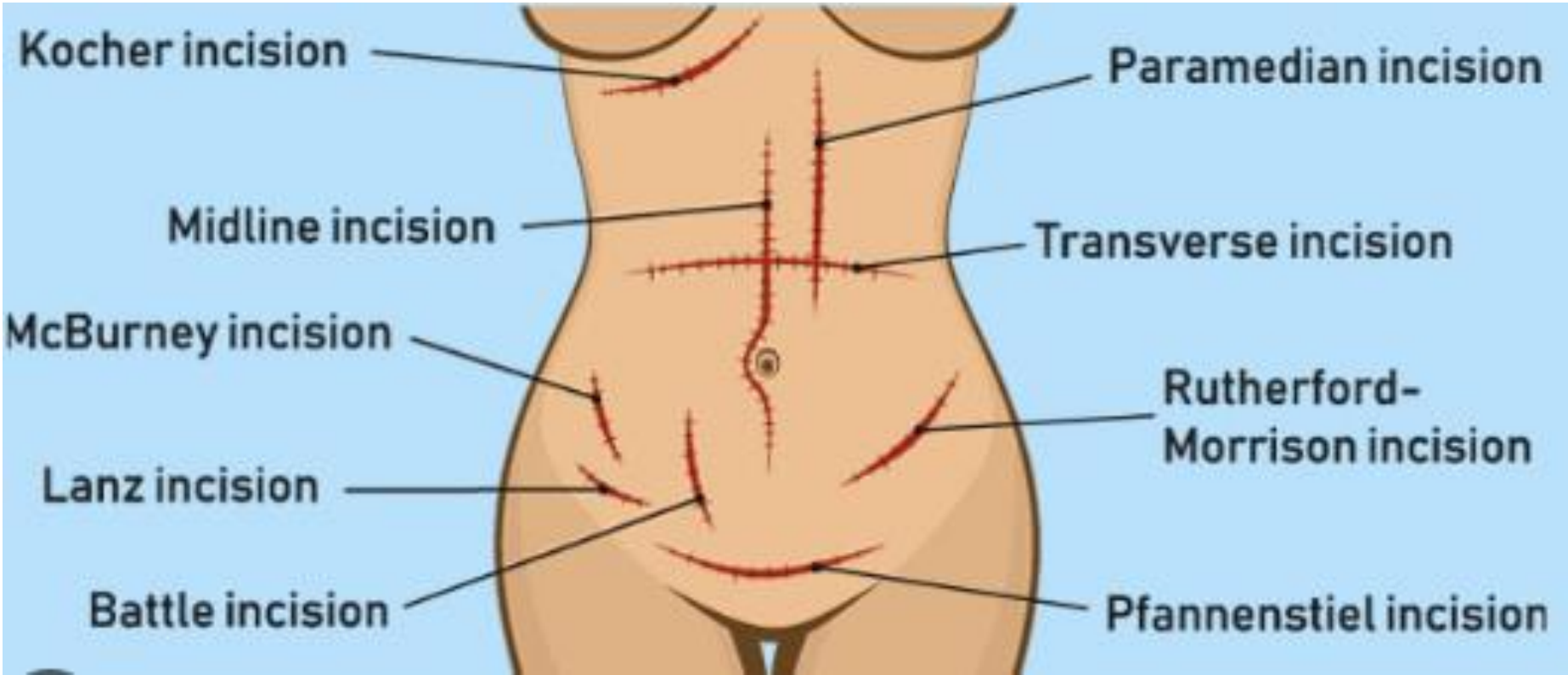
- *Diastasis recti:*
  - Occasionally, the muscles of the abdominal walls do not withstand the tension to which they are subjected, as a result, rectus muscles separate in the midline, creating diastasis recti.
  - If severe, a considerable portion of the anterior uterine wall is covered by only a layer of skin, attenuated fascia, and peritoneum.



- *Spider telangiectasia*: vascular stellate marks resulting from high levels of estrogen. These blanch when pressure is applied
  - Palmar erythema is an associated sign
  - Typically develops in face, neck, upper chest and arms



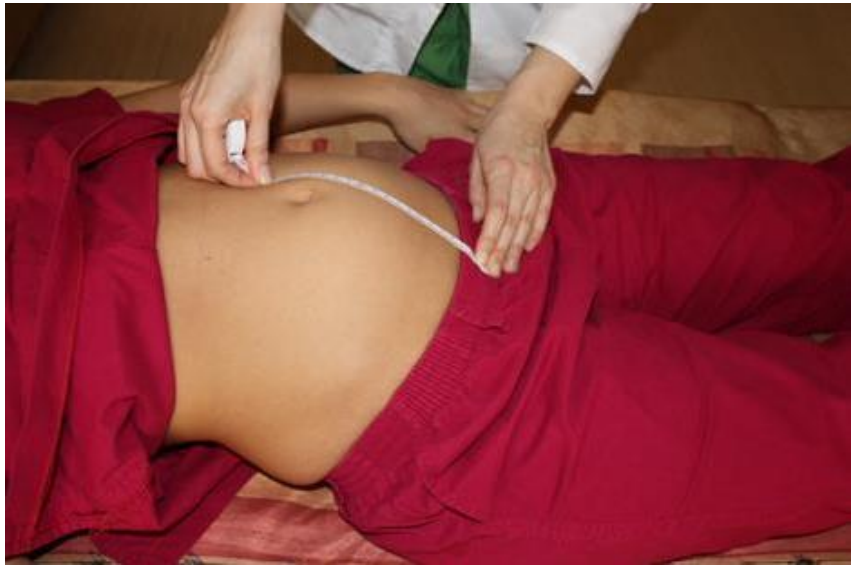
- Scars:


Kocher incision
Paramedian incision
Midline incision
Transverse incision
McBurney incision
Rutherford-
Morrison incision
Lanz incision
Battle incision
Pfannenstiel incision

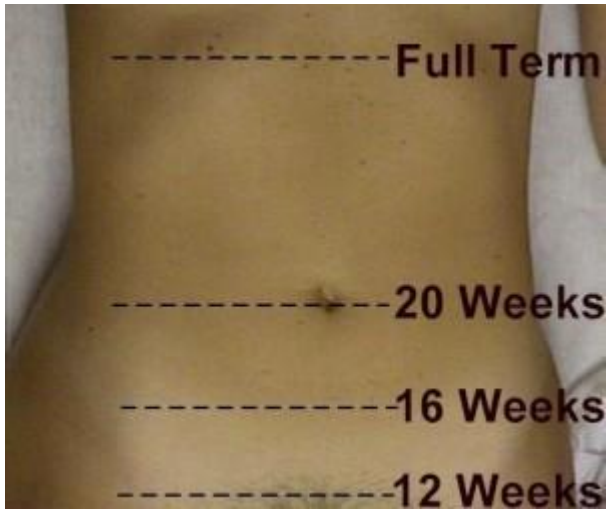
2. Palpation:

- Gentle superficial palpation to gain confidence and check any tender areas (ask her)
- Perception of fetal movement by the examiner
- Uterine contractility: abdomen feels tense or firm to the examiner, especially if the patient is in labour, or near term “Braxton-Hicks contractions”, some fetal parts may become palpable too

- Symphysis fundal height (SFH):
  - Measured in cm from superior border of pubis symphysis to fundus
  - From 24th weeks of gestation corresponds to period of gestation
  - Below 10th percentile (when plotted on customized charts) or difference of >4cms suggests IUGR

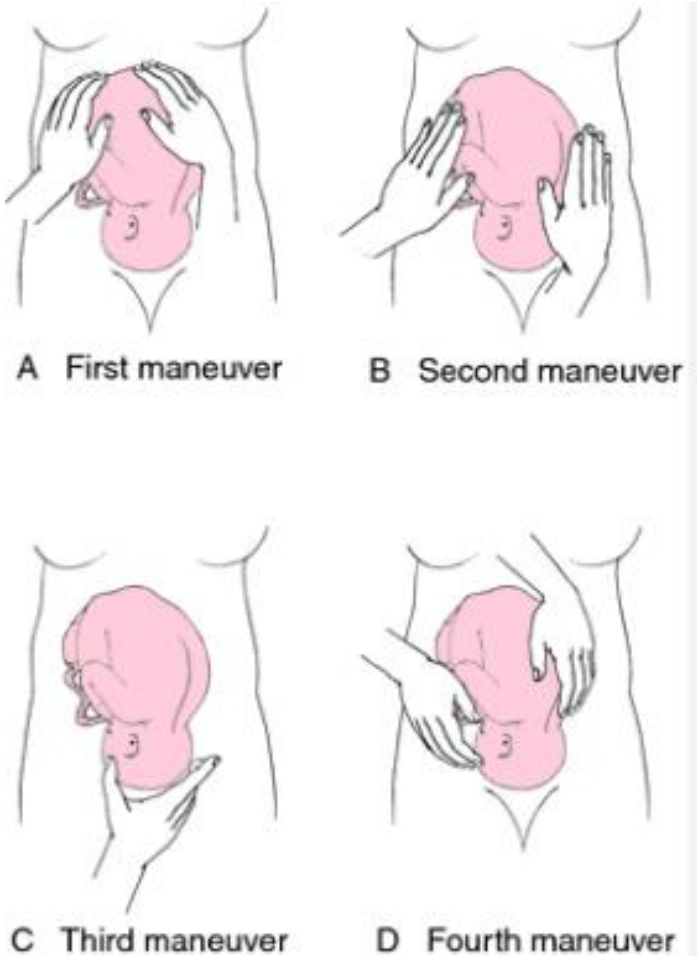


- 0 to 12 weeks: uterus is a pelvic organ
- 12 weeks: uterus at symphysis pubis
- 16 weeks: midway between symphysis pubis and umbilicus
- 20 weeks: umbilical level



- Leopold’s manoeuvres:

1. Fundal grip
2. Umbilical/Lateral grip
3. First pelvic grip/ Pawlik
4. Second pelvic grip



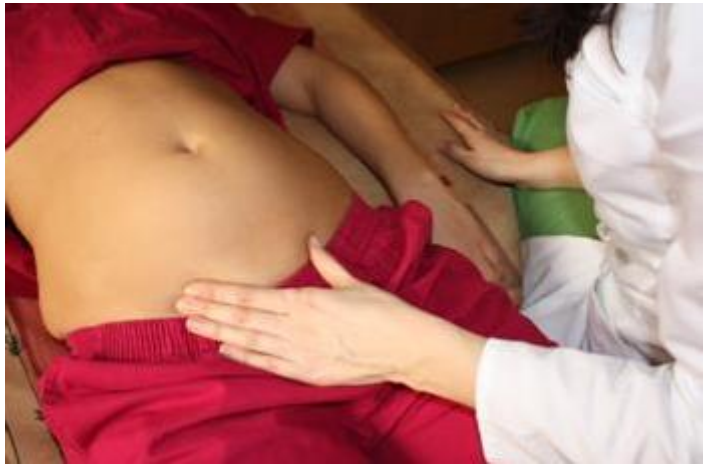
- Fundal grip:
  - Assesses the uterine fundus and which fetal pole—that is, cephalic or podalic—occupies the fundus
    - Placing both hands on each upper quadrant of the patient's abdomen facing the maternal xiphoid cartilage.
    - The ulnar border of each hand is in contact with the abdominal wall, and the opposite fingers are touching each other.
    - Using the fingertips, the fundus is gently palpated to identify which fetal part is present in the upper pole (fundus) of the uterus.

- The breach gives the sensation of a large, nodular mass, and its surface is uneven, non-ballotable, and not very mobile whereas the head feels hard and round with a smooth surface of uniform consistency, is very mobile and ballotable.

- Umbilical grip:
  - Palpation of the lateral uterine surfaces. Still facing the maternal xiphoid cartilage
    - Both hands slide down from the uterine fundus towards the lateral uterine walls.
    - It allows establishing if the fetus is in a longitudinal, transverse, or oblique situation, and to determine the position of the back and small parts.
    - The operator places the two flat hands sideways to the uterus and tries to bring them closer to the midline.

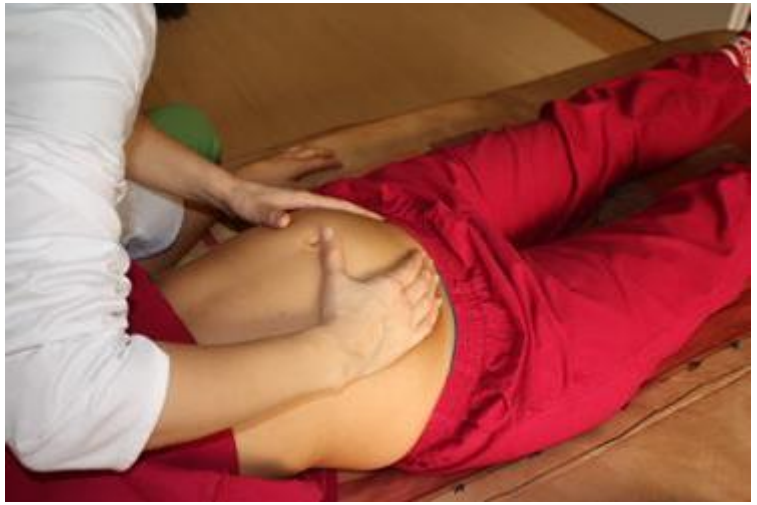
- The operator's hands are one on the back of the fetus and one on the small parts, which give different tactile sensations.
- This approach is possible when the fetus is in a longitudinal position regardless of the type of presentation, while it is not possible when the situation is transverse or oblique. Furthermore, it is possible to understand from which side the fetal back is located.
- The fetal heart can be auscultated at this time, which can also provide information on fetal orientation. The heart is well perceived when the stethoscope or the doppler transducer is placed on the back of the fetus.

- First pelvic grip (Pawlik):
  - Helps to define which presenting part of the fetus is situated in hypogastrium
    - Using the thumb and fingers of the right hand close above the pubic symphysis, the presenting part is grasped at the lower portion of the abdomen
    - Deep but gentle palpation is required till the presenting part is felt.
    - In the majority of cases, we can palpate a round and hard object – the fetal head



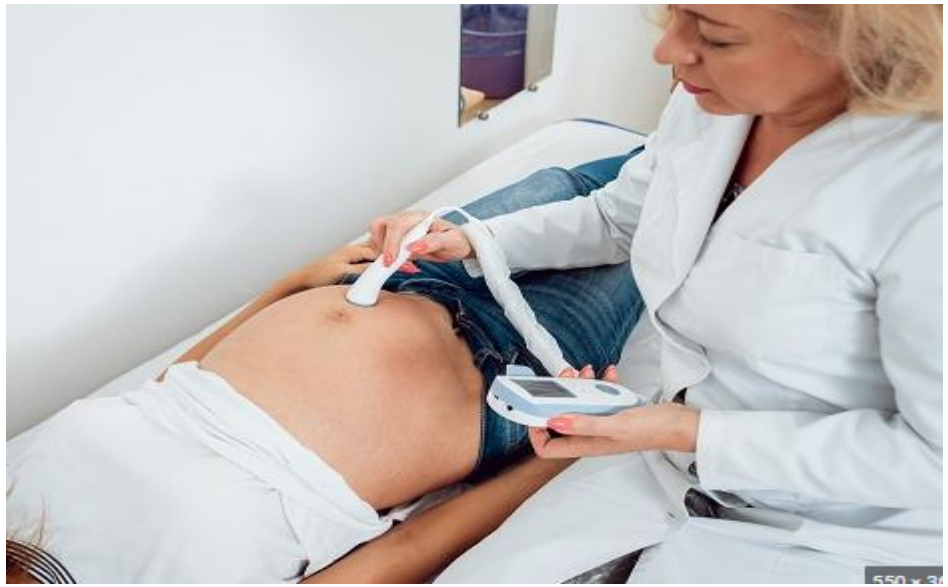
- Second pelvic grip:
    - Resembles the first manoeuvre; however, the examiner faces towards the maternal pelvis
    - This manoeuvre involves the examiner placing the palms of both hands on either side of the lower abdomen, with the tips of the fingers facing downward toward the pelvic inlet

- The fingers of both hands move gently along the sides of the uterus towards the pubis



3. Auscultation:

- Identification of fetal heartbeat; heard between fetal back and head
- Detected through Pinard stethoscope or hand-held doppler



Pelvic exam

- Speculum exam: Changes in the vaginal mucosa and inspection of the cervix

HCG Of Pregnancy

Hegar’s sign

Softening of uterine isthmus resulting in compressibility on bimanual examination

Chadwick’s sign= Jacquemier’s sign

Bluish congested vaginal and cervical mucosa

Goodell’s sign

Softening of the cervix

Osiander’s sign

Detection of pulsations of the vaginal and uterine arteries in the vaginal fornices

Piskacek’s sign

The softening of the uterus with lateral implantation

Lower limbs exam

- Palpate for ankle and pedal edema
- Physiologic edema is more common in advanced pregnancy and in women who stand for long periods
- Pathologic edema is often associated with hypertensive disorders in pregnancy
- Check for leg varicosities, signs of DVT

Systematic examination

- Head and neck:
  - Chloasma ”Melasma gravidarum” –irregular brownish patches of varying size appear on the face and neck —the so-called mask of pregnancy
  - Hair: note texture, moisture and distribution; dryness, oiliness and minor generalized hair loss may be noted
  - Eyes: anemia of pregnancy may cause pallor
  - Nose: nasal congestion is common among pregnant women; nosebleeds also common
  - Mouth: inspect gums and teeth; gingival enlargement with bleeding is common
  - Thyroid: symmetrical enlargement may be expected; marked enlargement is not normal during pregnancy

- Heart:
    - Palpate the apical impulse; in advanced pregnancy, it may be slightly higher than normal because of dextrorotation of the heart due to the higher diaphragm
    - Auscultate the heart; soft blowing murmurs are common, refecting the increased blood flow in normal vessels

Thank you!