History Taking & Examination in Obstetrics

Dr Murad Alrabadi

The Hashemite University

Introduction

- History and physical examination forms 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

Tips for good history

- Ensure privacy and confidentiality
- Greet the patient
- Explain to the patient what you want to do
- Obtain a verbal consent
- Use patients own words
- Be chronologic
- Be in charge
- Do not be in a hurry!

History taking

- Patient profile
- Presenting complaint
- History of presenting complaint
- History of index (current) pregnancy
- Past obstetric history
- Gynaecological history including menstrual history

History taking

- Past medical and surgical history
- Drug history
- Family and social history
- Systemic review
- Summary

Patient Profile

- Full name/title
- Age
- Occupation – be specific
- Residential address
- Marital status – may affect the social and support system
- Ethnic group
- Educational status – effective communication / social status

- Gravidity – total number of pregnancies irrespective of outcome - normal, miscarriages, ectopic pregnancies etc, current pregnancy
- Parity – total number of previous pregnancies carried to viability (20, 24, 28). Jordan=24 wks
- Miscarriage - pregnancy loss before viability (+)
- Eg: G3P1+1, G4P3, G2P1, G1P0=PG
- LMP – EDD [280 days/ 40weeks/ 9months and 7 days] - EGA
- Naegele's Rule to calculate EDD:
  - Add 7 to the LMP
  - Add 9 months
  - Subtract 3 months and add 1 year

Presenting complaint

- There may not be any
- May have come for ANC booking
- Routine antenatal follow up visit
- List the complaints in chronological order- the one that started first to the latest with duration

History of presenting complaint [PC]

- Details of PC
- GA at onset

History of Index (current) Pregnancy

- When she first knew she was pregnant
- What investigations she did to confirm the pregnancy
- Any details of any illness during this period / treatment/ hospital admissions
- If she was booked? If yes where … if not why?
- Results of her booking investigations
  - CBC, BG, Urine analysis and culture, HBSAG, Rubella IGg, screening for STDs.
- She may not know details/ were they normal ?

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

Past Obstetric history

- Year of delivery
- Place of delivery
- Duration of labour
- Mode / method of delivery
- Sex, Weight, NICU admission, Lactation, Anomalies.
- Fetal or maternal antenatal, intrapartum and postpartum complications
- If miscarriage: Mode, type, Ectopic?, Complications

Gynaecological history

- Age at menarche
- Menstrual cycle length
- Number of days of menstruation
- Regular?
- Associated symptoms – menorrhagia or dysmenorrhea
- Previous contraceptive use- type and duration

Gynaecological history

- Any previous gynaecological complaints or treatment?
- gynaecological surgery?
- Any history of STD?
- History of Cervical smear
  - Has she done smear?
  - Date
  - Result of the latest smear- normal or abnormal
  - Due date for the next smear

Past medical and Surgical History

- Any medical illness requiring treatment and/or hospitalisation
- Personal history of Diabetes mellitus, hypertension, sickle cell disease, cardiac disease, chronic renal disease, asthma, epilepsy, TB.
- Any surgical operation in the past
- Any previous blood transfusion

Drug history

- Chronic use
- Current use
- Allergies

Family history and social history

- Marital status? Single mother?
- Age of husband
- Husband’s occupation
- Husbands educational status
- Family history of
  - Twinning
  - DM
  - SCD
  - Cancers
  - Pregnancy complications: PET, Post-date …

Social history

- Intake of alcohol
- Tobacco
- Stimulants
- Sedatives
- Other medications

Systemic Review

- General- Headache, fever, etc.
- 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

- Two or three sentences
- Patient’s name
- Age
- EGA
- Current problem/situation
- Actions taken – investigations and plan

Summary example

- I have presented Mrs Green a 32 year old booked G3P2, primary school teacher with 1 previous caesarean section 3 years ago for breech presentation at term. She presented today for routine antenatal clinic visit at EGA of 20 weeks and has no complaints. She has commenced haematinics.

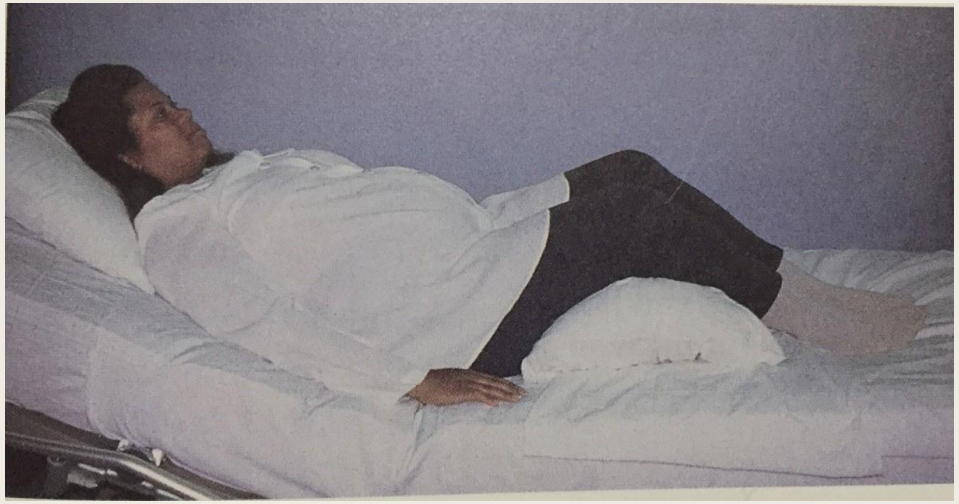
Obstetric Physical examination

General Approach

- Make sure to always provide comfort and sense of privacy
- Have the needed equipment readily at hand
- Provide gown and drapes for abdominal and pelvic exam
- Instruct the patient to empty her bladder prior to examination

A. Positioning

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



- B. 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/ fetal doppler

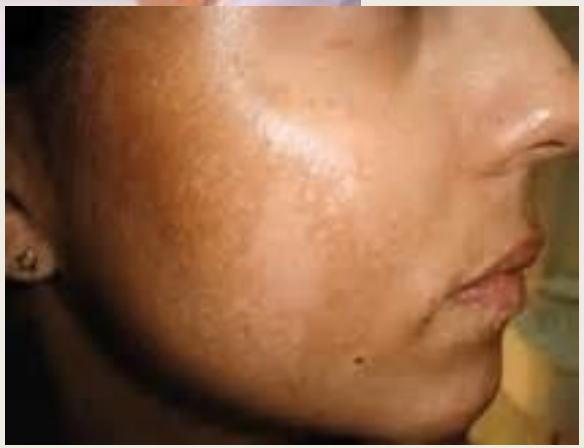
General examination

1. Appearance (inspection of overall health, nutritional status., emotional state, neuromuscular coordination)
2. Weight, Height, BMI
3. Vital signs (BP, pulse rate, temperature)

Head and Neck

Skin pigmentation changes

CHLOASMA/"MELASMA GRAVIDARUM" – irregular brownish patches of varying size appear on the face and neck —the so-called *mask of pregnancy.*



Head and Neck

- 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

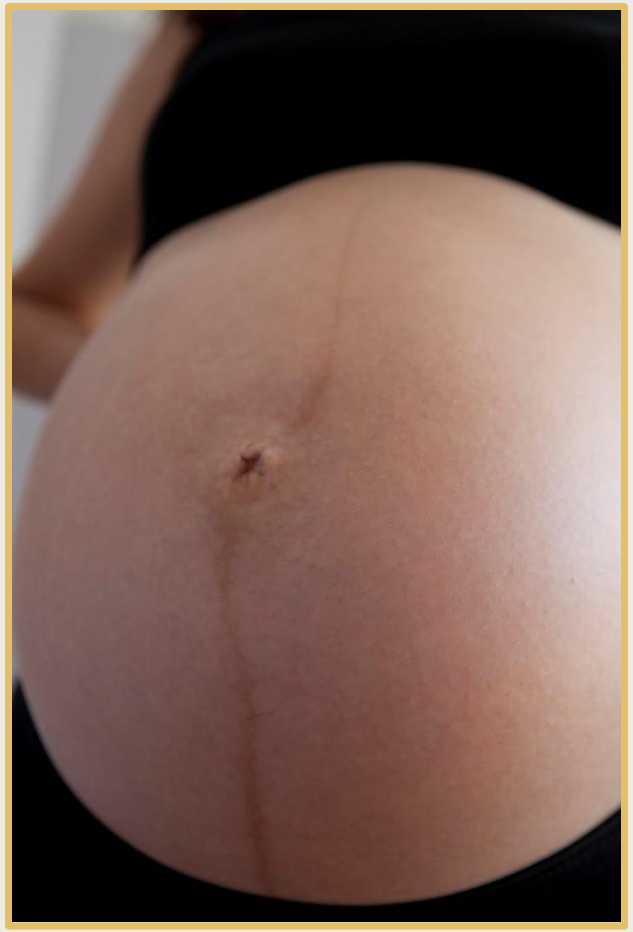
- Palpate the apical impulse; In advanced pregnancy, it may be slightly higher than normal because of dextrorotation of the heart due to the higher diaphragm
- Auscultate the heart; soft blowing murmurs are common, refecting the increased blood flow in normal vessels

Abdomen

Inspection: skin changes

- Linea Nigra : darkening of the linea alba (midline of the abdominal skin from xiphoid to symphysis pubis)

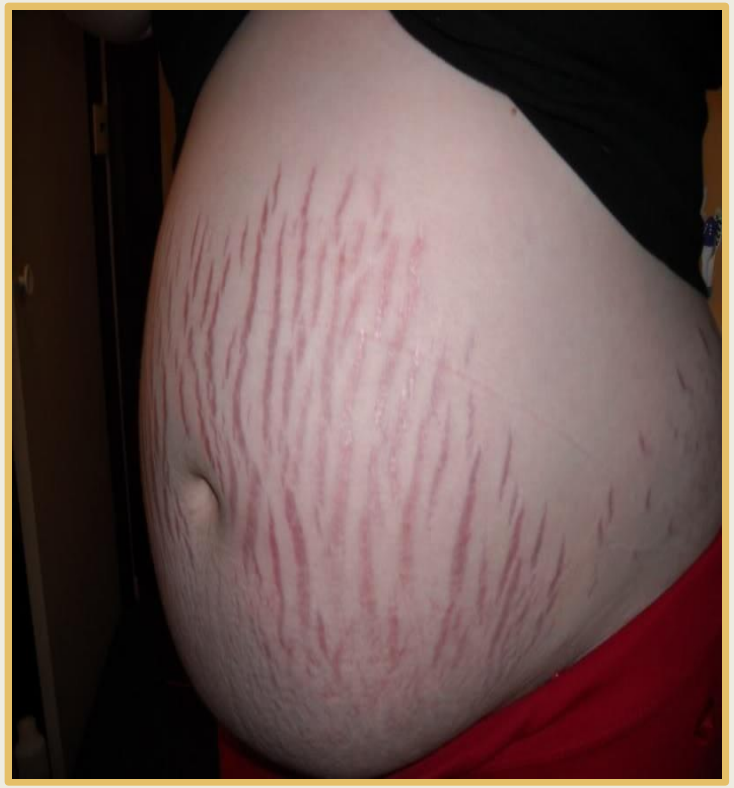
- ・due to stimulation of melanophores by increase in melanocyte stimulating hormone



Abdomen

Skin pigmentation changes

- Striae gravidarum: "stretch marks"
- ▪ separation of the underlying collagen tissue (secondary to stretching of the abdomen) and appear as irregular scars
- ▪ reddish or purplish ▪ becomes silvery after delivery
- associated risk factors are weight gain during pregnancy, younger maternal age, and family history.



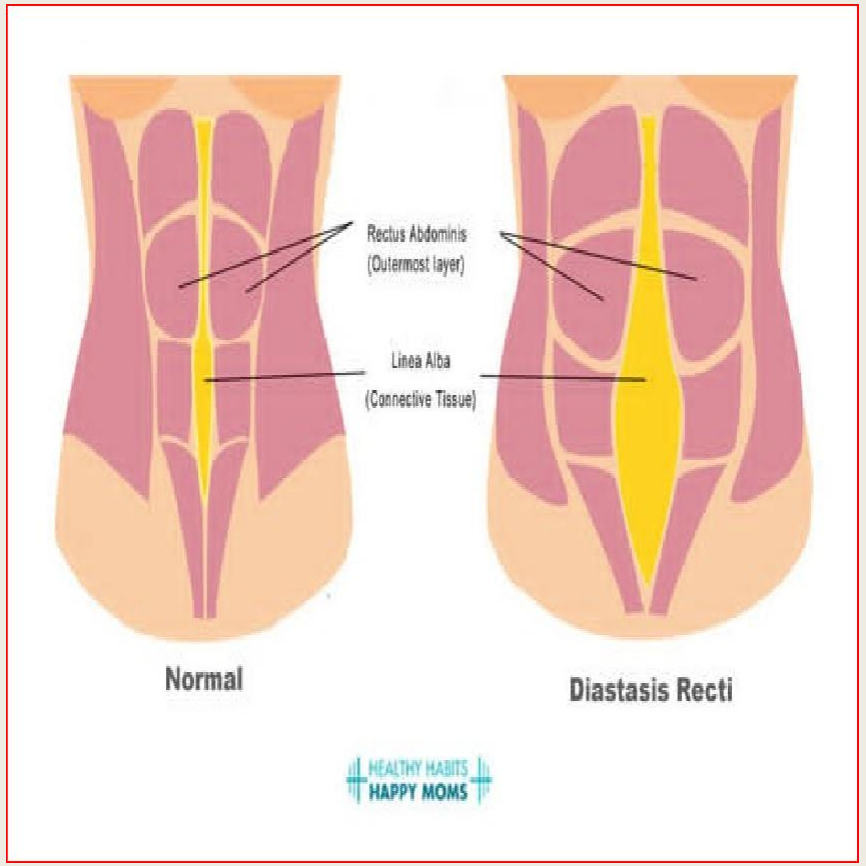
Abdomen

Skin changes

■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*

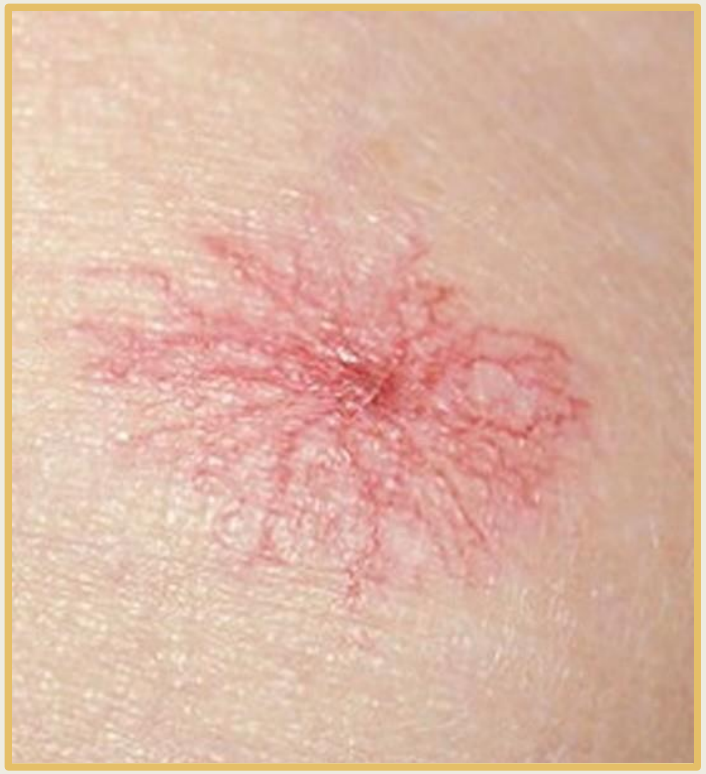
■If severe, a considerable portion of the anterior uterine wall is covered by only a layer of skin, attenuated fascia, and peritoneum.



Abdomen

Skin pigmentation changes

- Spider telangieactasia : vascular stellate marks resulting from high levels of estrogen
- ・blanch when pressure is applied
- ・palmar erythema is an associated sign
- Typically develops in face, neck, upper chest and arms



Abdomen

- **Scars:**

  Obs: Pfannenstiel, Joel-cohen, below umbilicus midline

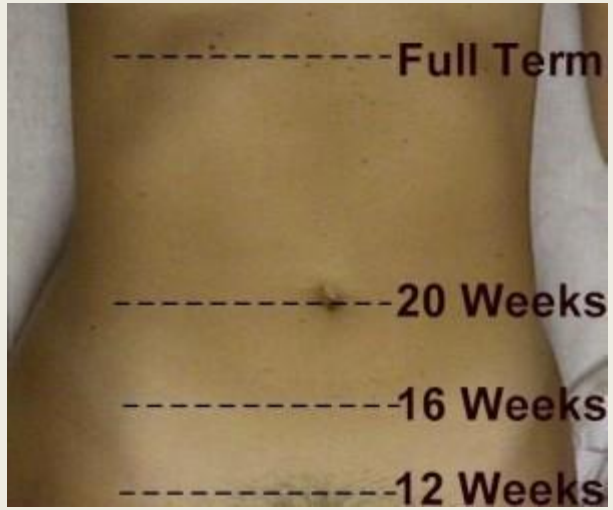
  Gyne: Above umbilicus midline, Cherny, Maylard, Lap incisions

  Other surgical incisions

Abdomen

Palpation: Abdominal Enlargement

- 0 to 12 weeks AOG: uterus is a pelvic organ
- 12 weeks AOG: uterus at symphysis pubis
- 16 weeks AOG: midway between symphysis pubis and umbilicus
- 20 weeks AOG: umbilical level
- Linear measurement from the symphysis pubis to the uterine fundus on an empty bladder correlates with AOG at 16-32 weeks (FUNDIC HEIGHT)
- example: 20 weeks AOG = 20 cm
- AOG: age of gestation



Abdomen

Palpation

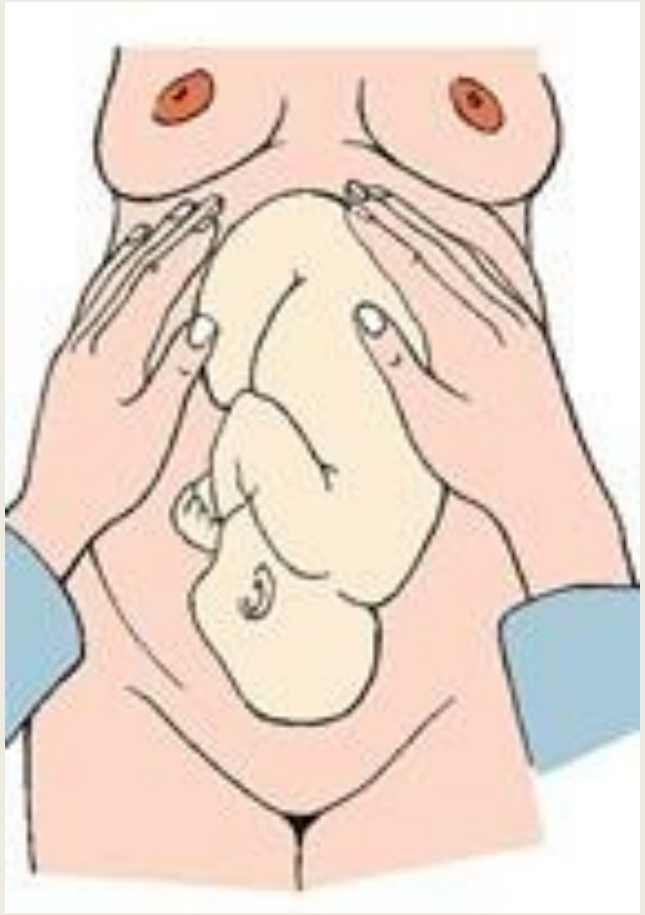
- **Perception of fetal movement by the examiner**
  - *Examiner may feel fetal movement after 24 weeks AOG (felt by the mother around 18 weeks - "quickening")*
- **Uterine contractility:**
  - *abdomen feels tense or firm to the examiner, especially if the patient is in labor, or near term ("Braxton-Hicks contractions")*
- **Some fetal parts become palpable, esp if mother is non-obese**

Leopold's maneuver

- Palpation
- Abdominal exam to determine fetal presentation

Leopold's maneuvers

1. **Leopold's maneuver #1 (LM1)**



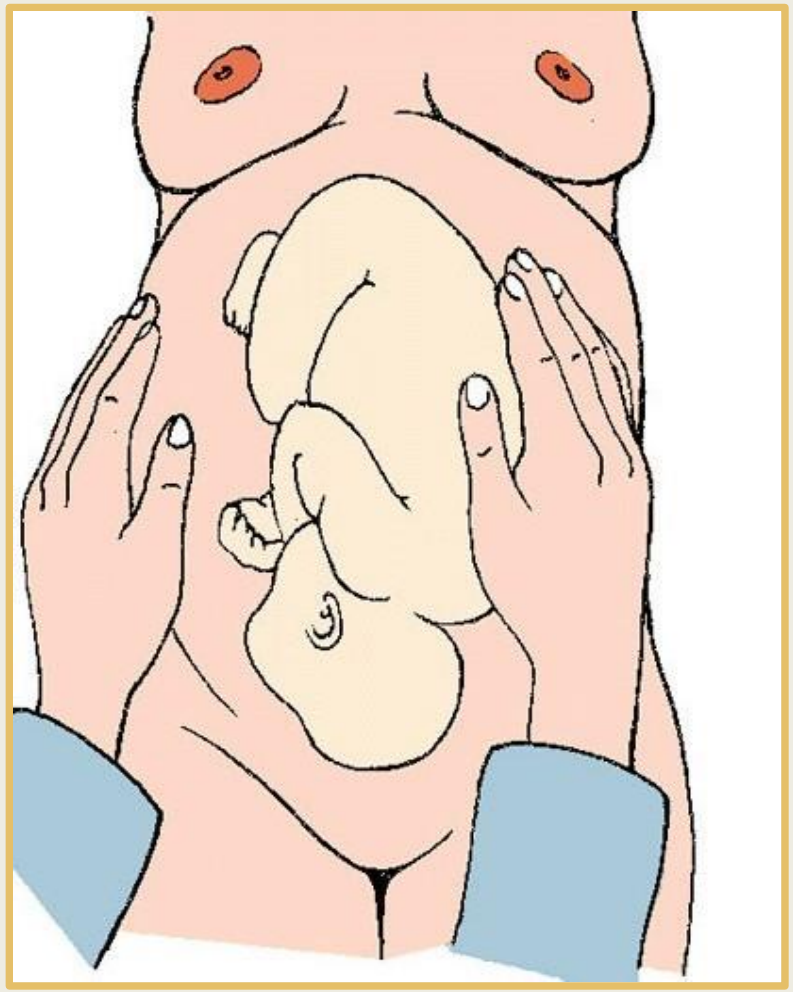
- "Fundal grip"
- Uterine fundus is palpated to detemine which fetal part occupies the fundus

- Fetal head should be round and hard, ballottable
- Breech presents as a large nodular mass

Leopold's maneuvers

2. Leopold's maneuver #2 (LM2)

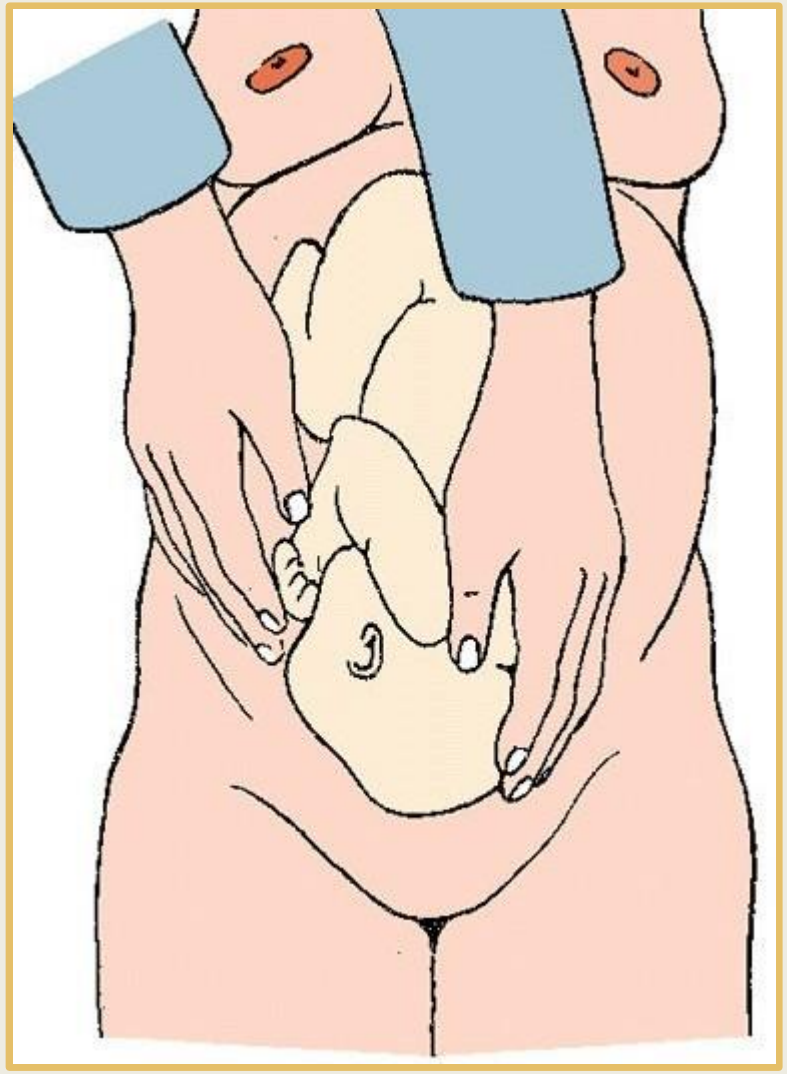
- "Lateral grip"
- Palpation of paraumbilical areas or the sides of the uterus
- To determine which side is the fetal back
- Fetal back feels like a hard, resistant, convex structure
- Fetal small parts feel nodular, irregular



Leopold's maneuvers

3. Leopold's maneuver #3 (LM3)

- "1st pelvic grip"
- Palpation of the bilateral lower quadrants to determine presentation
- The back of the examiner toward the patient but looking at the patients face for any tenderness



Leopold's maneuvers

4. Leopold's maneuver #4 (LM4)

- "Pawlik's grip"=2nd pelvic grip
- Suprapubic palpation using thumb and fingers just above the symphysis pubis, to *determine engagement*
- When the widest diameter of the presenting part passes through pelvic inlet
- Pelvic inlet landmarks:
- Upper border of SP = ANT
- Ilieopectineal line = LAT
- Sacral promontory = POS

Abdomen

Auscultation: Identification of fetal heart beat; heard between fetal back and head

- FHR is usually at a range of 110-150 bpm, 160 if preterm
- Detected through stethoscope or fetal Doppler (sonicaid fetal doppler)

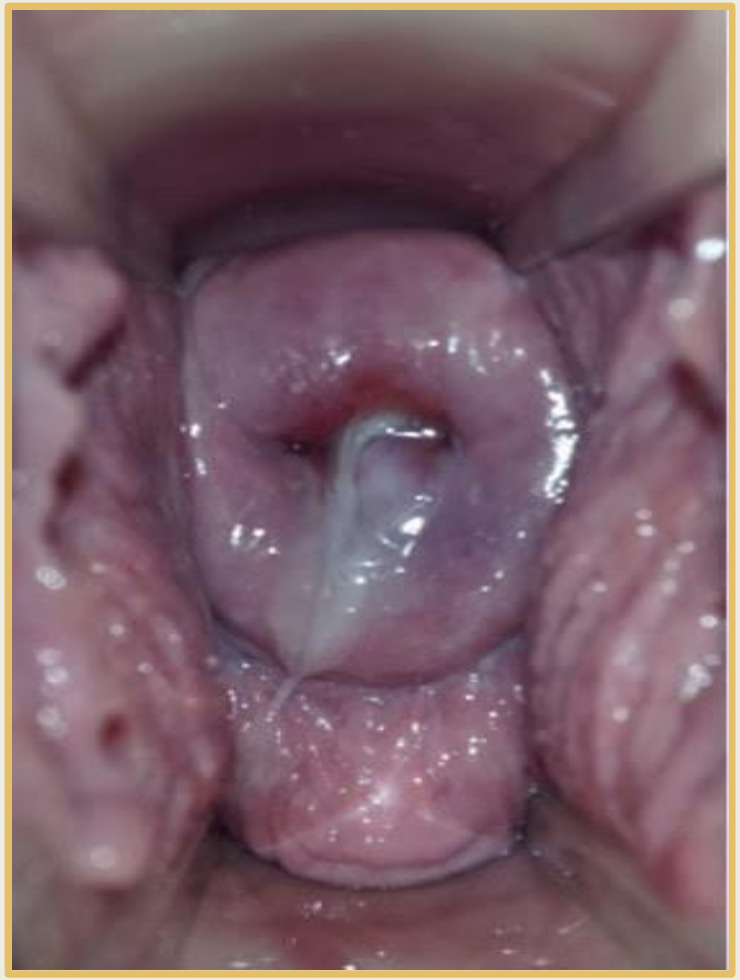
Extremities

- Inspect hands and legs for edema.
- Palpate for pretibial, ankle and pedal edema
- Physiologic edeme is more common in advanced pregnancy and in women who stand for long periods.
- Pathologic edema is often grade 3+ and often associated with hypertensive disorders in pregnancy
- Check for leg varicosities

Genitalia

Speculum exam: Changes in the Vaginal mucosa

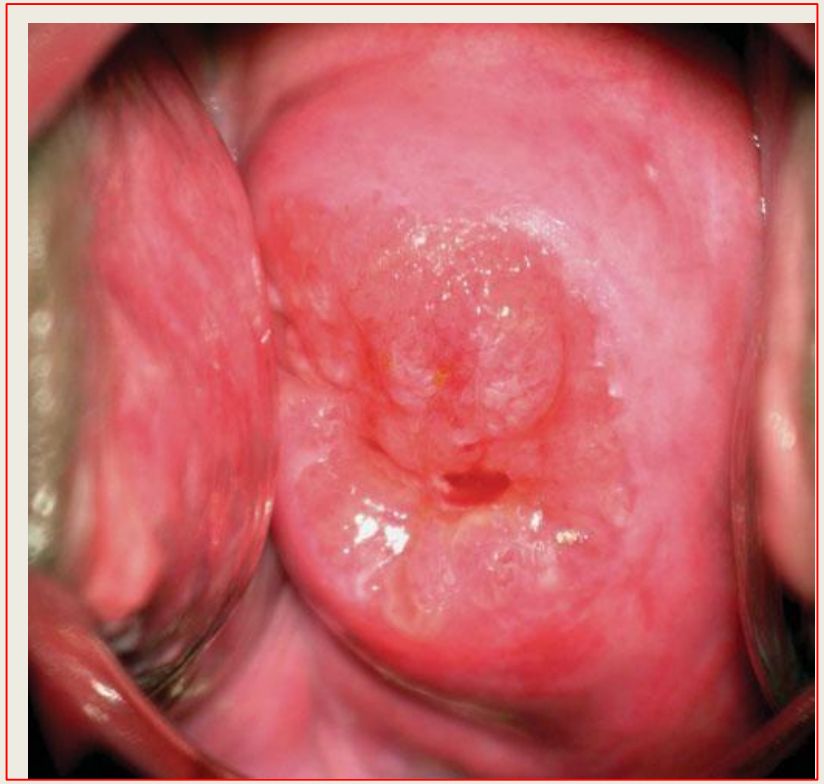
"Chadwick's sign" – vaginal mucosa and cervix becomes congested and violaceous, or bluish to purplish in color



Genitalia

Speculum examination: cervical changes

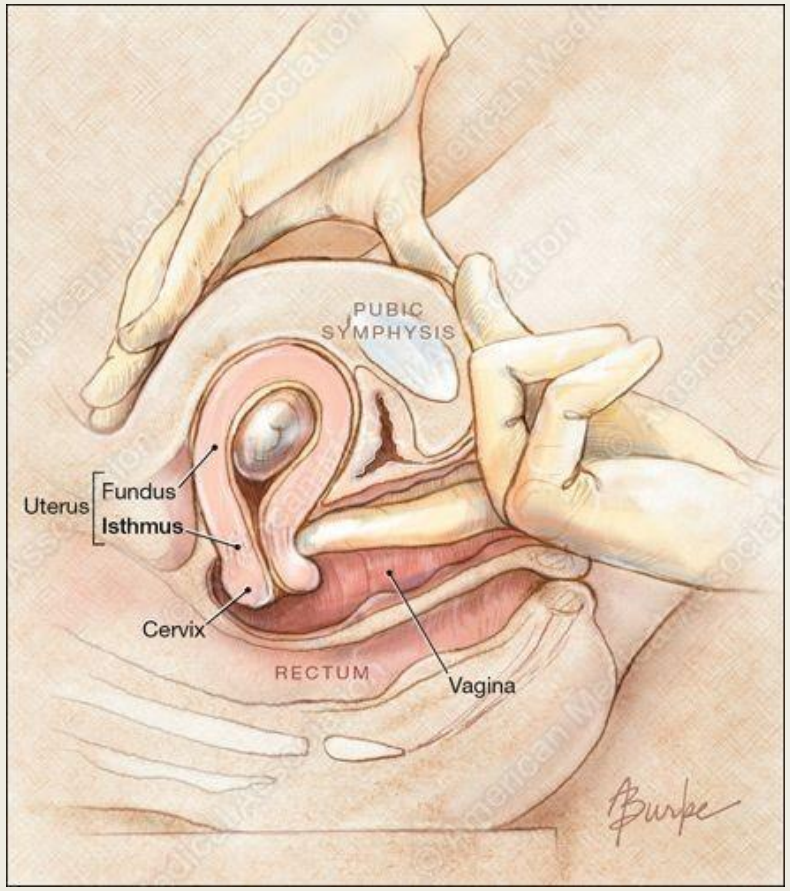
- cervical glands undergo marked proliferation, and by the end of pregnancy, they occupy up to one half of the entire cervical mass.
- These normal pregnancy-induced changes represent an extension, or *eversion*, of the proliferating columnar endocervical glands
- This tissue tends to be red and velvety and bleeds even with minor trauma, such as with Pap smear sampling.
- Named Ectropion



Genitalia

- Bimanual examination

Hegar's sign : softening of the uterine isthmus, resulting in its compressibility on bimanual examination; observed by the 6th to 8th week AOG



Thank you