Complications of Pregnancy

Los Angeles County
College of Nursing & Allied Health
N124: Maternal Child
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Agenda

- Patient-centered care of:
- Hemorrhagic conditions
  - Early pregnancy
  - Late pregnancy
- Hyperemesis gravidarum
- Hypertensive disorders
- Gestational diabetes
- Infection

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Early Hemorrhagic Conditions

- 3 Most common in 1st half of pregnancy
  1. Abortion
     1. Spontaneous or induced
  2. Ectopic Pregnancy
  3. Hydatidiform Mole

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Spontaneous Abortion

- Loss of pregnancy before viability
  - Spontaneous or induced
- Leading cause of pregnancy loss
  - ↑ with parental age
  - 1st 12 weeks

- Etiology
  - Severe congenital anomalies (50-60%)
  - Maternal infections/endocrine disorders
  - Immunologic
  - Uterine or cervical defects

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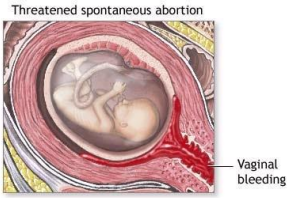
Threatened Abortion

- Presentation
  - Vaginal bleeding → cramps, backache, pelvic pressure
  - B-hCG levels rise/↑ uterine size if embryonic growth
- Management
  - Assessment
  - Teaching
  - Emotional support



Inevitable Abortion

- Presentation
  - Membranes rupture
  - Cervical dilatation
  - Heavy bleeding

- Management
  - Natural expulsion
  - Dilatation & vacuum curettage (D&C)

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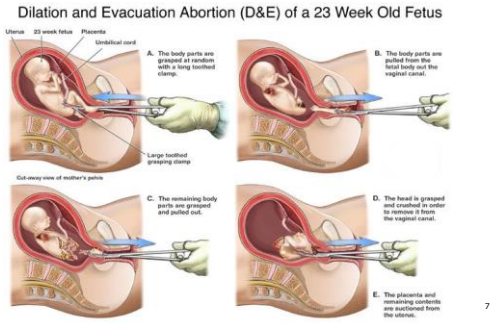
Dilatation & Curettage (D&C)



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Incomplete Abortion

- Partially retained products of conception (POC)
- Presentation
  - Active bleeding & severe abdominal cramping
- Management **before** 14 weeks
  - CV stabilization → Curettage → Uterotonic drugs
- Management **after** 14 weeks
  - Oxytocin or prostaglandin

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Complete Abortion

- All POC are expelled from the uterus
- Management
  - No intervention
    - Except with excessive bleeding & infection
- Teaching
  - Report bleeding, pain, or fever
  - Abstain from intercourse

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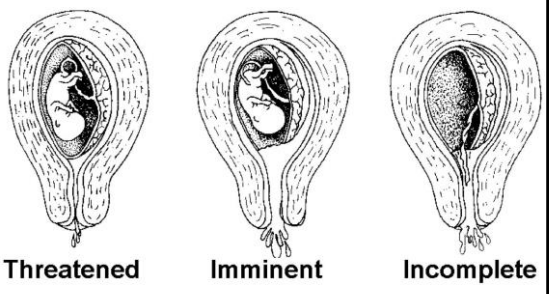

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Missed Abortion

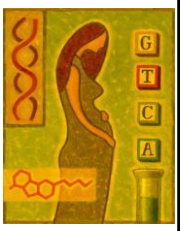
- Fetus dies in 1st half of pregnancy
  - Major complications: Infection & DIC
- Presentation
  - Early symptoms of pregnancy disappear
  - Uterine growth halts and reduces in size
- Management
  - 1st trimester: D&C
  - 2nd trimester: Prostaglandins

Recurrent Spontaneous Abortion

- 3+ Consecutive spontaneous abortions
- Etiology
  1. Genetic/Chromosomal abnormalities
  2. Reproductive tract anomalies
     1. Bicornuate uterus
     2. Cervical insufficiency

Recurrent Spontaneous Abortion

- Treatment
  - Reproductive exam
  - Etiology specific
    - Antimicrobials
    - Hormone-related medications
    - Cerclage



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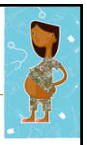
Disseminated Intravascular Coagulation (DIC)



- Anticoagulation & procoagulation
  - Missed abortion, abruptio placentae, & HTN
- Diagnosis via labs
  - ⬇Fibrinogen & platelets, prolonged pt/ptt, & + D-dimer
- Management
  - Delivery of fetus & placenta ➡ stops thromboplastin
  - Blood products

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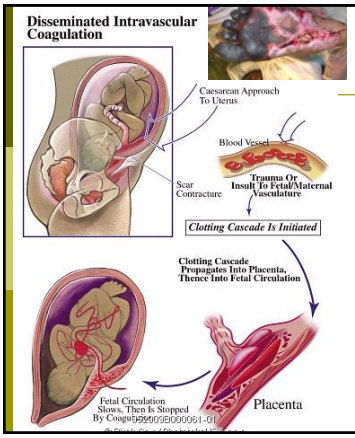
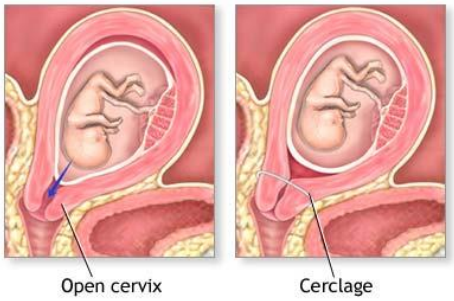


Fetal circ. slows

→ stops by coag.

Insufficient Cervix
2nd trimester painless dilatation



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Cerclage

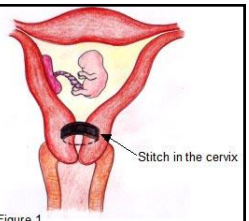
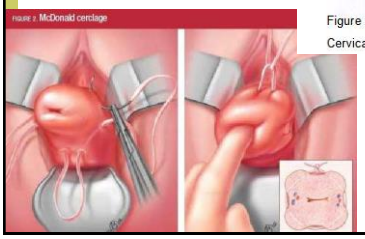


Figure 1
Cervical cerclage



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Nursing Responsibilities: Abortion

- Hypovolemic shock (Knowledge/Skills)
  - **Mat/fet tachycardia**
  - Decreasing BP
  - Tachypnea
  - Pale skin/mucous membranes
- Treatment (Skills)
  - IVF & blood products
  - Monitor VS & UO
- Grief and loss (Attitude)
  - Listen
  - Unconditional acceptance
    - Anger, disappointment, sadness
  - Support
  - Resources

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Patient-centered OB Care

How do we prepare to give quality and safe care to the OB client?

1. Patient-centered Care
2. Teamwork and Collaboration
3. Evidence-based Practice
4. Quality Improvement
5. Safety
6. Informatics

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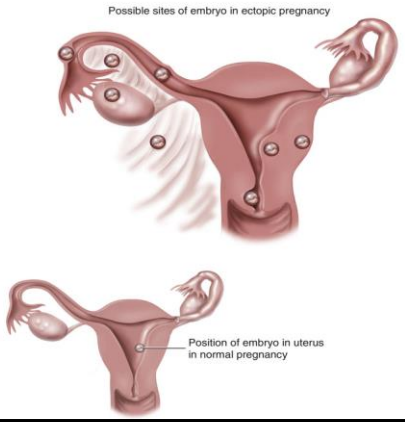

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Ectopic Pregnancy

- Implantation outside the uterus
- Risk factors
  - Decreased cilia
  - Fallopian tube scarring
  - Pelvic inflammation
  - Previous surgery

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Ectopic Pregnancy Presentation

- Distal end of fallopian tube
  - Usual signs of pregnancy
    - Missed menstrual period
    - Intermittent abdominal & pelvic pain
    - Vaginal spotting
- If embryo dies early, may be reabsorbed by body

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Ectopic Pregnancy Presentation

- Proximal end of fallopian tube
  - Rupture within 2-3 weeks of missed period
    - Sudden severe pain BLQ
    - Intraabdominal hemorrhage
    - + Kehr's sign
    - Hypovolemic shock
      - No visible external bleeding

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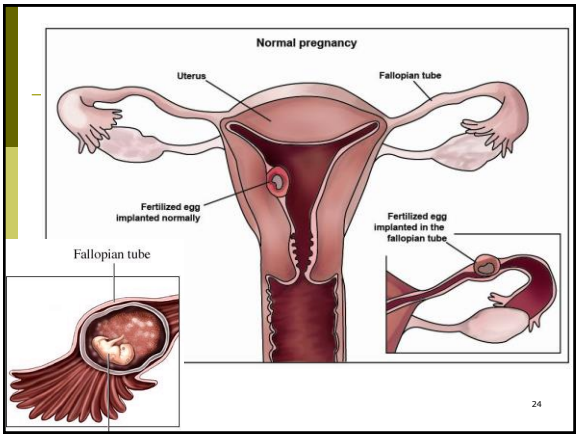

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Ectopic Pregnancy

- Diagnosis
  - Transvaginal ultrasound
  - B-hCG
- Management
  - Intact tube
    - Methotrexate
    - Linear Salpingostomy
  - Ruptured
    - Salpingectomy

Ectopic Pregnancy

- Nursing responsibilities:
- Knowledge, Skills, Attitude
  - Prevent hypovolemic shock
  - Pain management
  - Psychological support
  - Reportable s/s
  - Methotrexate teaching
    - No ETOH or PNV with folic acid

Hydatidiform Mole

- Trophoblasts develop abnormally
  - + Placenta development
  - - Fetal development
- Complete (without fetus)
- Partial (with fetal tissue)

- Life threatening if:
  - Malignant or embolus

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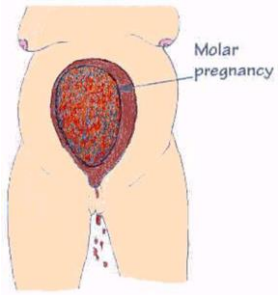
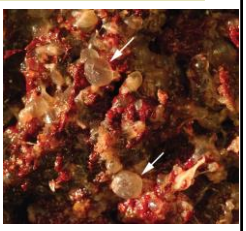
Hydatidiform Mole

- Diagnosis
  - Ultrasound
  - High B-hCG
- Signs/Symptoms
  - Vaginal bleeding
  - Large uterus
  - Excessive N/V



Hydatidiform Mole

- Treatment
  - Chest imaging & labs
  - Vacuum aspiration
  - F/U for malignant changes every 1-2 months for 1 yr
  - Chemotherapy if + choriocarcinoma



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Nursing Care: Early Hemorrhagic Conditions

1. Assessment
2. Nursing diagnosis & planning
3. Interventions
   1. Teaching
4. Follow-up care

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Early vs Late Bleeding

Vaginal bleeding in the first trimester may result from a spontaneous abortion (miscarriage)

Vaginal bleeding in the second or third trimester may indicate an abnormal location of the placenta

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Late Hemorrhagic Conditions

- After 20 weeks:
  1. Placenta Previa
  2. Abruptio Placentae

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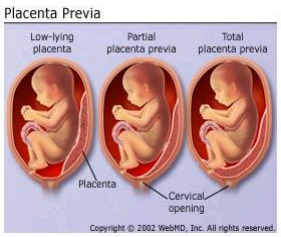
Placenta Previa

1. Marginal
2. Partial
3. Total



- Presentation
  - Sudden onset painless bleeding > 20 wks IUP
    - Villi torn from uterine wall → vessel hemmorhage

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Placenta Previa

- Management
  - CV stability
  - FHT pattern
  - Delay birth/Fetal lung maturity

- Nursing Responsibilities
  - Assess bleeding, fetal movement & UCs
  - No sexual intercourse or bimanual exams
  - Reportable symptoms

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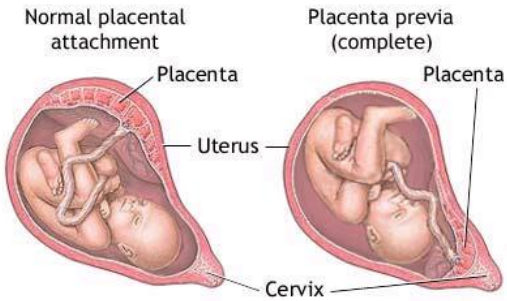
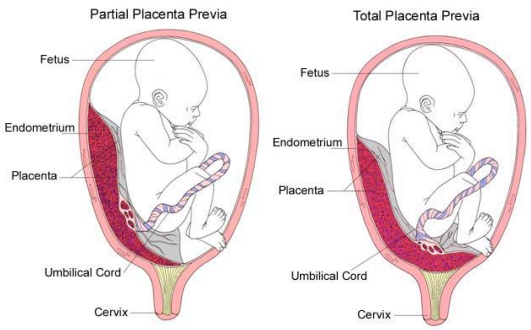
Placenta Previa

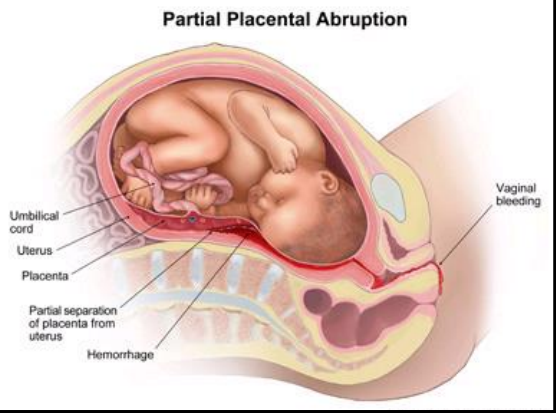


Placenta Previa

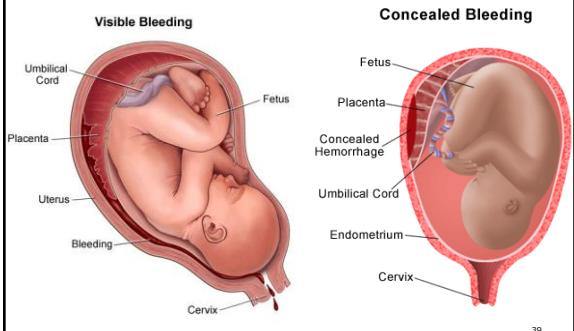


Abruptio Placentae

- Placental separation before birth
  - Hematoma on mat. side of placenta
- Presentation
  - Vaginal bleeding vs. concealed
    - Concealed: hard, boardlike abdomen
  - Abdominal & low back pain & UCs
  - High resting tone & uterine tenderness
- Management
  - CV stability, FHTs, RhoGAM



Assessment



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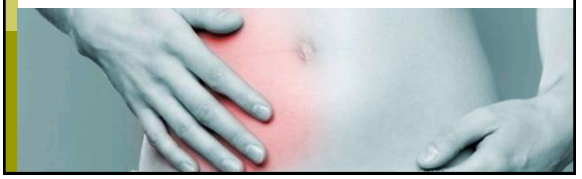
Assessment: Knowledge, Skills, Attitude Late Hemorrhagic Conditions

- Bleeding
- Pain
- Vital signs
- Fetal heart tones (FHT)
- Uterine contractions (UC)
- History
- Length of gestation
- Labs



Hyperemesis Gravidarum

- Persistent uncontrollable vomiting
  - 5% loss of pre pregnancy weight
  - Risk for low birth weight
- Treatment
  - Prevent: Dehydration, malnutrition, electrolyte probs
  - I & Os, labs, IVF/TPN, & daily weights
  - Medications
    - B6, ginger, Zofran, methylprednisolone → IV tx
  - Meal planning

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Hypertension in Pregnancy

DANGER SIGNS

DURING THE LAST 3 MONTHS OF PREGNANCY

If you have a headache ore trouble seeing,

and

if your face and hands begin to swell, you may be suffering from GESTATIONAL HYPERTENSION

GET MEDICAL HELP!

If only your feet swell, it probably is not serious. But watch out for signs of gestational hypertension

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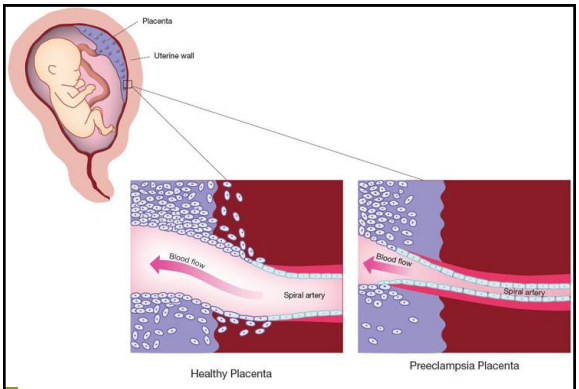
Gestational Hypertension

- BP >/= 140/90 after 20 wks IUP
- WNL by 6 wks postpartum
  - If not WNL = chronic htn
- No proteinuria

Preeclampsia



Preeclampsia

- Generalized vasospasm
  - ↓ Circulation to kidneys, liver, brain, & placenta
- Signs & Symptoms
  - HTN
  - Proteinuria
  - Hyperreflexia (DTRs)
  - Headache (HA)
  - Drowsiness

Preeclampsia Treatment

- **Goal:** Increase placental blood flow &
  - Prevent injury
- **Mild treatment**
  - Home care, teaching & f/u every 3 days
- **Severe treatment**
  - < 34 wks: steroids & delay vag. birth 48 hours
  - Bedrest/Calm environment & FHTs
  - Anticonvulsants & antihypertensives
  - Lab monitoring: BUN, Cr, Uric acid, Mag, LFTs

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Post partum management

- Preeclampsia → aggravated by blood loss
- Assess 48 hrs post & continue mag prn
- Signs of recovery
  - OU 4-6 L/day → rapid decrease in edema and wt loss
  - Decrease proteinuria
  - Improvement in labs:
    - Cr, LFTs trend down
    - Plts increase

Eclampsia

- Preventable extension of preeclampsia
  - Onset of 1 or more seizures
  - Pregnancy, intrapartum, or postpartum
  - Fluid shift causes hypovolemia
- Management
  - Breath sounds q hr, O2 sat, high flow O2, & UO
  - Lasix & Digitalis
  - Monitor ROM, FHT, UC, & abruption
  - Seizure precautions

HELLP Syndrome
Hemolysis, ⬆ Liver Enzymes, & Low Platelets

- Life threatening complication of severe HTN
- Symptoms
  - RUQ, lower chest, or epigastric pain
    - Tenderness d/t liver distention
  - N/V and severe edema

- Treatment
  - Same as preeclampsia or eclampsia

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Chronic Hypertension

- HTN that occurs prepregnancy or < 20 weeks
  - High risk for preeclampsia development
- Treatment
  - Dietician: High protein diet (loss in urine)
  - Frequent biophysical profile & kick counts
  - Antihypertensives
    - Methyldopa if DBP > 100 consistently
    - Hypertensive crisis; Hydralazine

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Gestational Diabetes

- Risk factors
  - Obesity
  - Hypertension
  - Previous large for gestational age (LGA) infant
- Dietary recommendations
  - Whole grains
  - Lean meats
  - High fiber
  - Low fat and sodium

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Gestational Diabetes

- Maternal effects
  - Preeclampsia, UTI, hydramnios, or shoulder dystocia
- Fetal effects
  - Congenital malformation, IUGR or **macrosomic**
- Neonatal effects
  - **Hypoglycemia**, hypocalcemia, hyper-bilirubinemia, Respiratory distress syndrome

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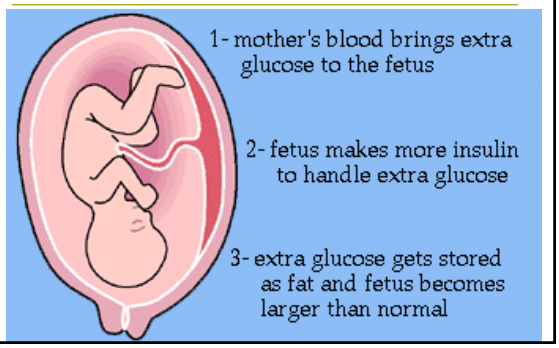
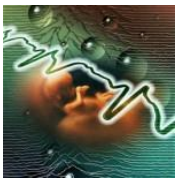
Goal: Establish normal glucose before pregnancy
1st trimester: High risk for fetal anomalies



Cardiac Disease

- CV changes can cause cardiac decompensation
- Goal: CHF prevention
  - Restrict activity
  - Limit weight gain
  - Prevent anemia & infection



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Cardiac Disease

- Classify I, II, III, or IV
- Teaching
  - CHF prevention
  - Avoid temperature extremes
  - Decrease emotional stress
  - No smoking or drug use
  - Breastfeeding advisement

Toxoplasmosis

- Protozoal infection
- Subclinical S/S
  - Fatigue, muscle aches & swollen glands
- Fetal/Neonatal Effects
  - 1st trimester vs 3rd trimester
- Teaching
  - Eat meat cooked to 160 degrees, avoid cat feces, gardening, and handwashing

Toxoplasmosis

Group Beta Streptococcus (GBS)

- Leading cause of life-threatening US perinatal infections
- Gram + bacterium:
  - Rectum, vagina, cervix, & urethra
- Symptomatic UTI, chorioamnionitis & endometriosis

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Group Beta Streptococcus (GBS)

- Associated with preterm ROM & preterm birth
- Fetal & Neonatal Effects
  - Early onset GBS 1st wk after birth (usually within 48 hrs)
  - 60% chance of transmission to newborn from rectovaginal area

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The End

- 10 little fingers,
- 10 little toes,
- 2 little eyes,
- 1 little nose.
- Put them together,
- what have you got?
- You've got me
- and that's a lot!

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