

Chapter 35
Obstetrics and Gynecology

- Learning Objectives**
- Review the anatomic structures and physiology of the female reproductive system
 - Identify normal events of the menstrual cycle
 - Describe how to assess the patient with a gynecological complaint
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- Learning Objectives (Cont'd)**
- Explain how to recognize a gynecological emergency
 - Describe the general care for any patient with a gynecological emergency
 - Describe the pathophysiology, assessment, and management of specific gynecological emergencies
- 3

Learning Objectives (Cont'd)

- Identify normal events of pregnancy
- Describe how to assess an obstetric patient
- Describe procedures for handling complications of pregnancy
- Identify stages of labor and the paramedic's role in each stage

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Learning Objectives (Cont'd)

- Differentiate a normal and abnormal delivery
- State indications for imminent delivery
- Identify and describe complications associated with pregnancy and delivery
- Explain the use of contents of an obstetrics kit

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Learning Objectives (Cont'd)

- Differentiate the management of a patient with pre-delivery emergencies from a patient with a normal delivery
- State the steps in the pre-delivery preparation of the mother
- Establish the relation between standard precautions and childbirth

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Learning Objectives (Cont'd)

- State the steps to assist in the delivery of the newborn
- Describe the management of the mother after delivery
- Discuss the steps in the delivery of the placenta
- Describe how to care for the newborn

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Learning Objectives (Cont'd)

- Describe how and when to cut the umbilical cord
- Summarize neonatal resuscitation procedures
- Describe the procedures for handling abnormal deliveries and maternal complications of labor

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Learning Objectives (Cont'd)

- Describe special considerations of the premature baby
- Describe special considerations when meconium is present in the amniotic fluid or during delivery

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Gynecology

Anatomy of the Female Genital Tract

- External female genitalia, uterus, vagina, fallopian tubes, ovaries, perineum
- Ovaries
 - Organ pair, release eggs/ova, reproductive hormones
 - Travels down fallopian tube to uterus

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Anatomy of the Female Genital Tract (Cont'd)

- Uterus
 - Embryo/fertilized egg implants, grows
 - Upper convex portion, fundus
 - Uterine cavity
 - Uterine wall
- Cervix
 - Neck of uterus
 - Inserts into vagina

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Anatomy of the Female Genital Tract (Cont'd)

- Birth canal
 - Lower uterus
 - Cervix
 - Vagina

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Anatomy of the Female Genital Tract (Cont'd)

- External genitalia
 - Mons pubis
 - Labia majora
 - Labia minora
 - Urethral meatus
 - Vaginal orifice
 - Perineum/perineal body

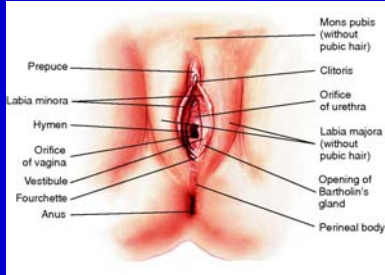
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Anatomy of the Female Genital Tract (Cont'd)

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Anatomy of the Female Genital Tract (Cont'd)

Anatomy of the External Female Genitalia



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Menstrual Cycle

- Occurs approximately every 28 days
- Normal discharge of blood, mucus, cellular debris from uterine cavity
- Menarche
- Menopause

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Menstrual Cycle (Cont'd)

- Menstrual cycle phases
 - Proliferative
 - Ovulation
 - Secretory

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Gynecological Emergencies

- Assessment and management
 - Vaginal bleeding
 - Abdominal pain
 - Vomiting
 - Fever
 - Diaphoresis
 - Syncope
 - Stool pattern changes
 - Dyspareunia
 - Urinary symptoms

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Gynecological Emergencies (Cont'd)

- Assessment and management
 - Signs
 - Tachycardia, hypotension, fever, abdominal tenderness, blood from vagina

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Gynecological Emergencies (Cont'd)

- Assessment and management
 - History
 - Recording format
 - Assess, treat for shock, maintain ABCs, IV access, monitor vital signs, transport

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Gynecological Emergencies (Cont'd)

- Specific gynecological emergencies
 - Nontraumatic abdominal pain
 - Pelvic inflammatory disease
 - Sexually transmitted infection
 - Chlamydia
 - Gonorrhea
 - Untreated, lead to abscess, sepsis, scarring of uterus and tubes, infertility

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Gynecological Emergencies (Cont'd)

- Specific gynecological emergencies
 - Nontraumatic abdominal pain
 - Findings
 - Lower abdominal pain
 - Possible fever
 - Vaginal discharge
 - Dyspareunia
 - Patient doubled over walking
 - Abdominal guarding
 - Acute onset
 - Ill appearance

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Gynecological Emergencies (Cont'd)

- Specific gynecological emergencies
 - Nontraumatic abdominal pain
 - Ovarian disorders
 - Follicle may not rupture, continue to grow, form ovarian cyst
 - May rupture spontaneously, after mild abdominal injury, intercourse, exercise
 - Symptoms
 - Ovarian torsion must be considered

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Gynecological Emergencies (Cont'd)

- Specific gynecological emergencies
 - Nontraumatic abdominal pain
 - Bladder infection
 - Bacteria ascends from perineum through the genital tract into urethral opening
 - Isolated in bladder
 - Suprapubic pain, cloudy urine, urinary frequency, hematuria, dysuria
 - Untreated, leads to pyelonephritis/kidney infection
 - Antibiotics, pain relief

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Gynecological Emergencies (Cont'd)

- Specific gynecological emergencies
 - Nontraumatic abdominal pain
 - Mittelschmerz
 - Pain with ovulation
 - Small amount of blood/fluid leaking from follicle into peritoneal cavity when ovum is released
 - Low grade fever

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Gynecological Emergencies (Cont'd)

- Specific gynecological emergencies
 - Nontraumatic abdominal pain
 - Uterine disorders
 - Endometritis
 - Endometriosis
 - Uterine prolapse

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Gynecological Emergencies (Cont'd)

- Specific gynecological emergencies
 - Nontraumatic abdominal pain
 - Vaginal disorders
 - Vaginitis
 - Vulvovaginitis
 - Vaginal bleeding
 - Treat for hemorrhagic shock
 - O₂
 - IV access
 - Monitor vital signs
 - Transport

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Gynecological Emergencies (Cont'd)

- Specific gynecological emergencies
 - Traumatic abdominal pain
 - Vaginal bleeding
 - Vigorous intercourse
 - Straddle-type injury
 - Pelvic fracture
 - Direct blow to perineum
 - Blunt force to lower abdomen
 - Foreign body inserted into vagina
 - Abortion attempts
 - Treat for hemorrhagic shock
 - Oxygen, IV access, monitor vital signs, transport

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Gynecological Emergencies (Cont'd)

- Specific gynecological emergencies
 - Traumatic abdominal pain
 - Sexual assault
 - Anxiety, withdrawal, silence, denial, anger, fear
 - Compassion, patience
 - Examine genitalia only if severe injury
 - Head injuries, abdominal trauma, strangulation injuries, chest trauma, extremity lacerations/fractures
 - Crime scene

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Gynecological Emergencies (Cont'd)

- Specific gynecological emergencies
 - Traumatic abdominal pain
 - Intimate partner violence
 - Pregnant women increased risk
 - Blunt trauma to abdomen
 - Face, head, breasts
 - Paramedic safety priority

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Obstetrics

- Prehospital delivery
 - Previous deliveries
 - Unsuspected complication, premature labor, bleeding
 - Psychosocial issues
 - Lack of access to medical care, drug/alcohol abuse, domestic violence

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Obstetrics (Cont'd)

- Obstetric terms
 - Antepartum
 - Gestation
 - Grand multipara
 - Gravida
 - Multigravida
 - Multipara
 - Natal
 - Nullipara

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Obstetrics (Cont'd)

- Obstetric terms
 - Para
 - Parity
 - Perinatal
 - Postnatal
 - Postpartum
 - Prenatal
 - Primigravida
 - Primipara
 - Term gestation

34

Anatomy and Physiology of Pregnancy

- Fetal development
 - Fertilization occurs in distal third of fallopian tube
 - Embryo, first 8 weeks of pregnancy, then fetus
 - Grows in amniotic sac
 - Fluid originates from fetal secretions, primarily urine

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Anatomy and Physiology of Pregnancy (Cont'd)

- Fetal development
 - Umbilical cord
 - Nutrition
 - O₂
 - Waste elimination
 - Three vessels, two arteries and vein, connects fetus to placenta

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Anatomy and Physiology of Pregnancy (Cont'd)

- Fetal development
 - Placental functions
 - Transfer of gases
 - Transport of nutrients
 - Excretion of wastes
 - Hormone production
 - Protection

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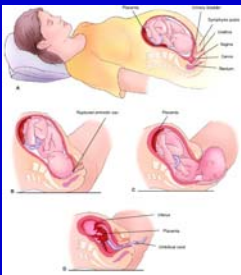
Anatomy and Physiology of Pregnancy (Cont'd)

- Fetal development
 - Normal length of pregnancy
 - Trimesters, 3 months each
 - Gender determined by end of first trimester
 - Fetal heart tones detectable by stethoscope, 20 weeks
 - Fetal movement felt, 18-22 weeks
 - Term, week 37
 - Estimated date of confinement (EDC)/estimated due date

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Anatomy and Physiology of Pregnancy (Cont'd)

Anatomy of Pregnant Woman



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Anatomy and Physiology of Pregnancy (Cont'd)

- Maternal physiology
 - First trimester, heart rate increases by 10-15 beats/min
 - Diaphragmatic displacement rotates heart, displaces upward, left

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Anatomy and Physiology of Pregnancy (Cont'd)

- Maternal physiology
 - Respiratory rate increases
 - Functional residual capacity reduced
 - Increase in tidal volume, minute volume



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Anatomy and Physiology of Pregnancy (Cont'd)

- Maternal physiology
 - BP decrease of 10-15 mm Hg by second trimester, normal by third trimester
 - Blood volume, 1.5x
 - Cardiac output increases by 30% by week 34
 - Supine hypotensive syndrome

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Anatomy and Physiology of Pregnancy (Cont'd)

- Maternal metabolism and nutrition
 - Normal weight gain varies, usually 11-16 kg, most should occur during second half of pregnancy
 - Insulin resistance

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Assessment of Pregnant Patient

- History
 - Primary complaint, relation to pregnancy
 - Vaginal bleeding, uterine contractions, abdominal pain
 - Gestational age
 - Gravidity
 - Parity

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Assessment of Pregnant Patient (Cont'd)

- Physical examination
 - General appearance
 - Vital signs
 - Dehydration, shock

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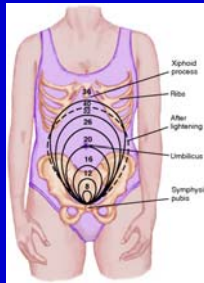
Assessment of Pregnant Patient (Cont'd)

- Physical examination
 - Gestational age >20 weeks, fetal heart tones
 - Feet, legs for edema
 - Abdominal examination, palpate urine fundus, note height relative to abdominal landmarks

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Assessment of Pregnant Patient (Cont'd)

Uterine Growth during Pregnancy



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General Management of Pregnant Patient

- Two patients
- Hypoxia, hypovolemia
- O₂ requirements increase
- Standard diagnostic, treatment modalities

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General Management of Pregnant Patient (Cont'd)

- Respiratory distress, respiratory arrest, higher vomiting risk, aspiration
- Left lateral recumbent position

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Complications of Early Pregnancy

- Abortion (miscarriage)
 - Preterm delivery, premature birth
 - Spontaneous abortion/miscarriage
 - Complete abortion
 - Incomplete abortion
 - Threatened abortion
 - Septic abortion
 - Therapeutic abortion

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Complications of Early Pregnancy (Cont'd)

- Abortion (miscarriage)
 - Signs, symptoms
 - Abdominal cramping
 - Vaginal bleeding
 - Passage of tissue/fetus
 - Hemorrhagic shock
 - Assess ABCs, oxygen, treat for shock
 - Monitor vital signs
 - Passed tissue/fetus, place in clean plastic bag
 - Emotionally traumatic

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Complications of Early Pregnancy (Cont'd)

- Abortion (miscarriage)
 - Assess ABCs
 - O₂
 - Treat for shock
 - Monitor vital signs
 - Passed tissue/fetus, place in clean plastic bag
 - Emotionally traumatic

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Complications of Early Pregnancy (Cont'd)

- Ectopic pregnancy
 - Pregnancy outside of uterus, usually fallopian tube
 - Scarring/inflammation in pelvis
 - Tube may rupture
 - Symptoms begin during week 5-10
 - Monitor for shock, IV, supine position

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Complications of Early Pregnancy (Cont'd)

- Hyperemesis gravidarum
 - Severe form of morning sickness
 - Nausea, vomiting, weight loss, electrolyte imbalance, dehydration

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Complications of Late Pregnancy

- Placental abruption
 - Separation of part of placenta from uterus
 - Abdominal trauma
 - High BP
 - Maternal cocaine/tobacco use
 - Poor nutrition
 - Advanced maternal age
 - Uterus/placental infection

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Complications of Late Pregnancy (Cont'd)

- Placenta previa
 - Abnormal placement of placenta, covers cervical opening
 - Previous c-section, multiparity, increasing age, preterm births
 - 3rd trimester bleeding

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Complications of Late Pregnancy (Cont'd)

- Preeclampsia, eclampsia
 - Pregnancy-induced hypertension
 - Life-threatening

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Complications of Late Pregnancy (Cont'd)

- Preeclampsia, eclampsia
 - Risk factors
 - Primigravidity
 - Twin, multiple gestation
 - Prior pregnancies with different fathers
 - Hypertension
 - Excessive amniotic fluid
 - Diabetes
 - Renal disease
 - Obesity
 - Maternal age >35 years
 - History of preeclampsia

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Complications of Late Pregnancy (Cont'd)

- Preeclampsia, eclampsia
 - Symptoms
 - Headache
 - Severe swelling of hands, feet, face
 - Right upper quadrant, epigastric pain
 - Nausea, vomiting
 - Visual disturbances
 - Proteinuria present
 - With seizures, eclampsia

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Complications of Late Pregnancy (Cont'd)

- Preeclampsia, eclampsia
 - Stroke, clotting, bleeding problems, kidney or liver failure, death
 - BP, 140/90 mm Hg, acute systolic rise >20 mm Hg
 - Manage airway
 - O₂
 - IV access
 - Transport

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Complications of Late Pregnancy (Cont'd)

- Infection
 - Some affect only the baby, only the mother, or both
 - Pyelonephritis
 - Fever, chills, flank pain, tenderness, frequency, urgency, hematuria, dysuria
 - Preterm labor signs, septic shock, respiratory distress
 - Treat for shock
 - Transport

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Complications of Late Pregnancy (Cont'd)

- Infection
 - Chorioamnionitis
 - Amniotic sac infection
 - Risk factors
 - Young age
 - Low socioeconomic status
 - Nulliparity
 - Extended labor duration and ruptured membranes
 - Multiple vaginal examinations
 - Preexisting infections of lower genital tract

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Complications of Late Pregnancy (Cont'd)

- Premature rupture of membranes
 - Amniotic sac rupture before labor
 - Fluid gushes from vagina with persistent leakage
 - Cord prolapsed, cesarean delivery, placental abruption
 - Antibiotics, steroids

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Complications of Late Pregnancy (Cont'd)

- Diabetes
 - Poor fetal outcomes, stillbirth, fetal distress
 - Hypertensive diseases
 - Preterm labor
 - Spontaneous abortion
 - Pyelonephritis
 - Diabetic ketoacidosis
 - Cerebral hemorrhage, cardiac failure, renal failure
 - Large babies, shoulder dystocia

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Normal Childbirth

- Labor
 - Onset of regular, coordinated contractions of uterus, combined with dilation of cervix
 - Braxton-Hicks contractions

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Normal Childbirth (Cont'd)

- Labor
 - First stage
 - Onset of regular uterine contraction to complete cervical dilation
 - Dilation stage
 - Measure contraction time, interval
 - Bloody show

66

Normal Childbirth (Cont'd)

- Labor
 - Second stage
 - Full dilation of cervix to delivery of newborn
 - Expulsion stage
 - Moving into birth canal
 - Amniotic sac ruptures
 - Presenting part visible, usually head
 - Crowning

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Normal Childbirth (Cont'd)

- Labor
 - Third stage
 - Immediately after delivery until expulsion of placenta
 - Placental stage
 - Do not delay transport for placental delivery
 - If placenta delivers, check for all parts, place in bag

68

Normal Childbirth (Cont'd)

- Delivery
 - Decision to transport versus delivery in field
 - Estimated transport time
 - Mother's condition complicated by other life threats
 - If mother wants to bear down, inspect perineum
 - If crowning, prepare for delivery

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Normal Childbirth (Cont'd)

- Delivery
 - Preparation for delivery
 - Private area
 - Standard precautions
 - Supplies



70

Normal Childbirth (Cont'd)

- Delivery
 - Preparation for delivery
 - Position mother



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Normal Childbirth (Cont'd)

- Delivery
 - Delivery procedure
 - Allow head to deliver in controlled, gradual manner
 - Use bulb syringe to suction mouth, nose
 - Check around neck for umbilical cord

72

Normal Childbirth (Cont'd)

Normal Delivery



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Normal Childbirth (Cont'd)

- Delivery
 - Delivery procedure
 - Gently direct head downward to allow anterior shoulder to slip out from under the pubic bone
 - Keep infant at vagina level to wipe remaining secretions around mouth, nose
 - Dry infant to reduce body heat loss, stimulate breathing

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Normal Childbirth (Cont'd)

- Delivery
 - Delivery procedure
 - Cut umbilical cord, place two clamps, cut between them
 - Wrap infant in clean towels, blankets
 - Note time of delivery
 - Multiple births, prepare for next delivery
 - Watch for placenta to deliver spontaneously
 - Place in container, transport to hospital

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Postdelivery Care of Mother

- Mother weak, tired
- Monitor BP, heart rate
- Keep mother warm, watch for shock
- Excessive blood loss, massage uterus

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Postdelivery Care of Mother (Cont'd)

Uterine Massage



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Postdelivery Care of Infant

- Airway
 - Suction immediately after head is delivered
 - Check again to ensure no mucus
 - Repeat bulb suctioning if necessary

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Postdelivery Care of Infant (Cont'd)

- Breathing
 - Clearing airway, drying procedures usually stimulate breathing
 - Rub back, flick feet with fingers
 - Chin lift/jaw thrust to open airway
 - Respiratory rate at least 30 breaths/min
 - Bag mask device

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Postdelivery Care of Infant (Cont'd)

- Circulation
 - Check for pulse in umbilical cord, brachial artery
 - No pulse, <60 beats/min, begin chest compressions

80

Postdelivery Care of Infant (Cont'd)

- Apgar scores
 - Appearance
 - Pulse
 - Grimace
 - Activity
 - Respiratory effort

81

Complications of Childbirth

- Preterm delivery
 - Between 20 and 37 weeks
 - Risk factors
 - Physiological abnormalities
 - Uterine/cervical abnormalities
 - PROM
 - Multiple gestations
 - Intrauterine infection

82

Complications of Childbirth (Cont'd)

- Preterm delivery
 - Fluid leakage, amniotic sac broken
 - Rapid transport, rest, fluids, tocolytic administration
 - Baby may need aggressive resuscitation
 - Humidified blow-by O₂
 - Keep infant warm
 - 24 weeks, old enough to survive

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Complications of Childbirth (Cont'd)

- Breech delivery
 - Baby's buttocks, lower extremities first part to enter birth canal
 - Frank breech, complete breech, footling breech
 - As infant delivers, support legs, pelvis

84

Complications of Childbirth (Cont'd)

Breech Delivery



A B C

85


Complications of Childbirth (Cont'd)

- Breech delivery
 - Do not grasp by abdomen, can damage internal organs
 - Grasp pelvic bone, do not pull on body
 - Rotate torso so shoulders oriented anteriorly to posteriorly
 - Guide body upward to allow posterior shoulder to deliver, then downward to deliver anterior shoulder

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Complications of Childbirth (Cont'd)

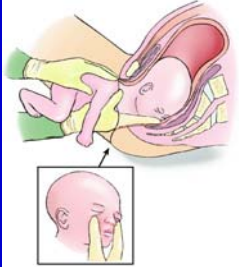
- Breech delivery
 - Position mother



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Complications of Childbirth (Cont'd)

Airway for Breech Delivery



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Complications of Childbirth (Cont'd)

- Shoulder dystocia
 - Head delivers, shoulder trapped under pelvic bone
 - "Turtle sign"
 - Knee chest position
 - Do not pull hard
 - Press downward with fingers on baby's shoulder through mother's abdominal wall just above pubic bone
 - Unsuccessful, rapid transport

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Complications of Childbirth (Cont'd)

- Cephalopelvic disproportion
 - Baby's head too large for maternal pelvic opening
 - Cesarean section required

90

Complications of Childbirth (Cont'd)

- Prolapsed umbilical cord
 - Cord in front of presenting part, becomes compressed, cutting off blood supply, O₂ to baby



91

Complications of Childbirth (Cont'd)

- Compound presentation
 - Presentation of extremity alongside major presenting fetal part
 - Knee-chest position
 - O₂
 - Transport immediately

92

Complications of Childbirth (Cont'd)

- Multiple births
 - Markedly enlarged abdomen after delivery, consider multiple births
 - Procedures same as single birth
 - Higher risk, breathing difficulties, hypothermia

93

Complications of Childbirth (Cont'd)

- Vaginal bleeding
 - Massage abdomen
 - Breastfeed
 - Shock, hemorrhagic shock
 - O₂
 - Keep mother warm
 - IV access

94

Complications of Childbirth (Cont'd)

- Meconium
 - Newborn's first bowel movement
 - Baby in distress from lack of oxygen, infection
 - Aspirate into lungs with first breath

95

Complications of Childbirth (Cont'd)

- Fetal death
 - CPR
 - Emotional support

96

Complications of Childbirth (Cont'd)

- Uterine inversion
 - Uterus turned inside out
 - One attempt at replacing uterus
 - Cover exposed tissue with moist sterile gauze
 - Transport
- Uterine rupture
 - Treat for shock
 - Rapid transport

97

Complications of Childbirth (Cont'd)

- Pulmonary embolism
 - Risk increases five times in perinatal, postpartum period
 - Clot in pelvic circulation
 - Dyspnea
 - Tachypnea
 - Cough
 - Pleuritic chest pain
 - Tachycardia
 - Hemoptysis
 - Diaphoresis

98

Trauma in Pregnancy

- Leading cause of death in pregnancy
- Syncopal episodes
- Best treatment for fetus is treatment to mother

99

Trauma in Pregnancy (Cont'd)

- ABCs, O₂
- Position on left side after week 24
- Cervical collar and backboard, tilt backboard 15° to left using pillows, linens under backboard

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Trauma in Pregnancy (Cont'd)

Tilted Backboard



101

Trauma in Pregnancy (Cont'd)

- Seat belt use in pregnancy
 - Lap belt snugly, comfortably under abdomen and across thighs, shoulder belt between breasts



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Chapter Summary

- Major female reproductive structures include uterus, ovaries, fallopian tubes, and vagina
- During the menstrual cycle, endometrium prepared by hormones estrogen, progesterone to receive the fertilized egg
 - If egg is not fertilized, lining is shed as menstruation

103

Chapter Summary (Cont'd)

- Assessment and management of gynecological emergency should include a history that focuses on the primary complaint and specifically addresses vaginal bleeding, abdominal pain, and the possibility of pregnancy
 - May be a sensitive issues for patient; maintain a caring, professional attitude at all times

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Chapter Summary (Cont'd)

- Most gynecological problems are not life threatening; an ectopic pregnancy can kill otherwise healthy women
 - Any woman with vaginal bleeding and abdominal pain who might be pregnant should be monitored for shock and transported for further evaluation

105

Chapter Summary (Cont'd)

- Domestic violence and sexual assault are terrifying for the patient; the primary responsibility is to keep the patient and yourself safe from further violence
 - Try to cooperate with law enforcement authorities in collecting evidence whenever possible

106

Chapter Summary (Cont'd)

- Pregnancy is a normal event in the human life cycle
 - When egg is fertilized it travels down the fallopian tube, implants in lining of the uterus
 - Egg develops into embryo, attached by umbilical cord to placenta
 - Placenta is the organ that exchanges nutrition, toxins for embryo
 - After 8 weeks embryo is called a *fetus*
 - Normal duration of pregnancy is 38-40 weeks

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Chapter Summary (Cont'd)

- Enlarging uterus causes physiological changes unique to pregnancy
 - Heart rate, respiratory rate increase slightly, blood pressure decreases slightly
 - Blood volume is significantly increased
 - Can compress major blood vessels in abdomen to cause supine hypotension syndrome
 - To avoid this, transport woman on her left side during the second half of pregnancy

108

Chapter Summary (Cont'd)

- Obstetric history should start with primary complaint and its relation to the pregnancy
 - Always ask about the presence of vaginal bleeding, contractions, and abdominal pain
 - Try to establish EDC, gravidity, and parity of patient
 - If mother is at least 20 weeks pregnant, listen for fetal heart tones on physical examination of the abdomen

109

Chapter Summary (Cont'd)

- Vaginal bleeding and abdominal pain in first trimester of pregnancy may be signs of miscarriage/ectopic pregnancy
 - Both conditions may cause life-threatening bleeding
 - Closely monitor these patients for shock and transport as soon as possible

110

Chapter Summary (Cont'd)

- Placental abruption and placenta previa are complications of late pregnancy; they may cause vaginal bleeding
 - Previa is often associated with painless, bright-red bleeding
 - Abruption is associated with abdominal pain, tender uterus
 - Significant vaginal bleeding is not normal before delivery; prompt careful monitoring for shock, rapid transport

111

Chapter Summary (Cont'd)

- Preeclampsia, disorder of second half of pregnancy, may include signs such as hypertension, severe extremity swelling, vomiting, abdominal pain, and headaches
 - Most serious complication of preeclampsia is seizures; assume any seizure in pregnancy is caused by preeclampsia; treat with careful airway management, supplemental oxygen, IV access, and prompt transport
 - Drug for eclamptic seizures is magnesium sulfate

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Chapter Summary (Cont'd)

- Like pregnancy, childbirth is a normal event in the human life cycle; it usually progresses without difficulty no matter where it happens
 - Most deliveries occur in hospitals/birthing centers with medical professionals in attendance
 - Reassure the mother, prepare for delivery, assist with birth, monitor the mother and baby closely after delivery
 - ABCs

113

Chapter Summary (Cont'd)

- Labor divided into three stages
 - First stage begins with onset of contractions, ends when cervix is fully dilated
 - Second stage is the time from complete dilation of the cervix until delivery of the infant
 - Third stage begins after the infant is delivered, ends with delivery of the placenta

114

Chapter Summary (Cont'd)

- Some indicators for imminent delivery include sensation of needing to push, rupture of membranes, and contractions that are longer than 1 minute and closer than 2-3 minutes apart
 - Examine mother for crowning, perineal bulging

115

Chapter Summary (Cont'd)

- If you must deliver the infant outside the hospital, try to find a private, protected place and use proper standard precautions, including wearing gown, gloves, mask, and protective eyewear
- Supplies for delivery include clean linens, bulb syringe, umbilical cord clamps, gauze, sponges, scissors, and container for placenta

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Chapter Summary (Cont'd)

- Allow the head to deliver in a gradual, controlled manner and check for the umbilical cord wrapped around the baby's neck
 - If present, pull cord over baby's head
- Immediately suction infant's nose and mouth before body delivers
 - If meconium is present, suction the mouth and nose thoroughly, provide oxygen, watch for breathing difficulties

117

Chapter Summary (Cont'd)

- After body delivers, dry the baby, clamp, cut the umbilical cord, assess baby's ABCs, stimulate infant to breathe if necessary, and provide oxygen as needed
- If placenta delivers, place it in a clean container, transport it to hospital with mother and infant

118

Chapter Summary (Cont'd)

- Easy to focus on only one of your patients after delivery; continue to reassess ABCs in both mother and baby and provide support as needed
- Up to 500 mL of blood loss after delivery is normal and should be expected
 - If mother continues to have brisk bleeding, massage the uterus through the abdominal wall, encourage her to breastfeed if possible to slow bleeding

119

Chapter Summary (Cont'd)

- *Preterm delivery*, delivery before week 37 of pregnancy; infants may need more aggressive resuscitation than term infants; they are more prone to hypoxia, respiratory distress, and hypothermia
 - Keep infant warm and provide ventilatory assistance as needed

120

Chapter Summary (Cont'd)

- Abnormal presentations include breech presentation, shoulder dystocia, limb presentation, and cord prolapse
 - Placing mother in knee-chest position provides widest possible diameter of pelvis and may expedite delivery
 - In case of cord prolapse, it will help reduce pressure on cord

121

Chapter Summary (Cont'd)

- Fetal demise is a horrific event for the mother; a gentle, supportive demeanor should be maintained at all times
 - Err on the side of doing everything to aid in the infant's survival
- Uterine complications of delivery can include inversion/rupture; both are life-threatening events that require prompt recognition and treatment for shock

122

Chapter Summary (Cont'd)

- Pregnant women are at increased risk of pulmonary embolism
 - Suspect if woman is short of breath, reports pleuritic chest pain, or coughs up blood

123

Chapter Summary (Cont'd)

- Trauma is the leading cause of death among pregnant women in the United States
 - Best care for the fetus is good care for the mother; treat aggressively, always position the pregnant woman in a left lateral recumbent position when possible
 - If she requires a backboard, tilt to the left to reduce the risk of supine hypotensive syndrome

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Questions?

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