



NATIONAL FELLOWSHIP OF
DIRECT ENTRY MIDWIVES

Excellence in Certification, Tradition in Practice®

Certification Directives and Essentials Manual

NDEM

The EXAM Study Guide
For Preparing to become a
Certified Direct Entry Midwife

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Introduction

Welcome to the Certified Direct-Entry Midwife (CDEM) Examination Study Guide.

This guide has been developed to assist aspiring direct-entry midwives in preparing for certification by reviewing the core knowledge, clinical judgment, and professional competencies expected of an entry-level practitioner. The examination is designed to evaluate a candidate's ability to provide safe, evidence-informed, and client-centered care throughout the childbearing cycle while practicing within the scope of direct-entry midwifery.

The content outlined in this guide reflects the major domains tested on the certification examination, including professional practice, reproductive physiology, embryology and fetal development, prenatal care, labor and birth management, postpartum care, and newborn assessment. Each domain is organized by topic area to help candidates identify strengths, focus their studies, and develop a comprehensive understanding of midwifery principles and practice.

Candidates should use this guide as a framework for study rather than a list of test questions. Successful examination performance requires not only memorization of facts but also the ability to apply knowledge, recognize normal and abnormal findings, prioritize care, identify risk factors, make appropriate clinical decisions, and understand when consultation, referral, or transfer of care is indicated.

The certification examination emphasizes the philosophy of physiologic childbirth, informed decision-making, maternal autonomy, newborn well-being, professional responsibility, and the safe practice of direct-entry midwifery in community birth settings. As you prepare for the examination, focus on understanding concepts, integrating knowledge across domains, and developing sound clinical reasoning. Midwifery is both a science and an art; this examination seeks to assess your readiness to apply both in service to mothers, babies, and families.

We wish you success in your studies and in your journey toward becoming a Certified Direct-Entry Midwife.

Recommended Textbooks and Resources

The following resources are recommended for candidates preparing for the **Certified Direct-Entry Midwife (CDEM) Examination**. These texts provide foundational knowledge in anatomy, physiology, pregnancy, childbirth, newborn care, clinical decision-making, and community-based midwifery practice.

Candidates are not expected to memorize any single textbook. Instead, these resources should be used to develop a comprehensive understanding of the concepts outlined in this study guide.

Core Midwifery Textbooks

Varney's Midwifery

King, T., Brucker, M., Osborne, K., & Jevitt, C.

A foundational midwifery text covering:

- Reproductive health
- Prenatal care
- Labor and birth
- Postpartum care
- Newborn assessment
- Clinical decision-making

Often considered the primary reference text for midwifery education programs.

Myles Textbook for Midwives

Marshall, J. & Raynor, M.

Comprehensive review of:

- Maternal physiology
- Pregnancy
- Labor and birth
- Newborn care
- Professional practice

Particularly useful for understanding physiologic childbirth.

Frye's Holistic Midwifery Series

Anne Frye

Volumes include:

- Care During Pregnancy
- Care During Labor and Birth
- Care After Birth
- Well-Woman Care

These texts are widely used within community midwifery education and provide extensive discussion of physiologic birth and homebirth practice.

Anatomy and Physiology

Human Anatomy & Physiology

Marieb & Hoehn

Excellent reference for:

- Reproductive anatomy
 - Endocrinology
 - Cardiovascular physiology
 - Renal physiology
 - General body systems
-

Anatomy & Physiology Made Easy

Useful supplemental review text for candidates needing a refresher in basic sciences.

Embryology and Fetal Development

Langman's Medical Embryology

Sadler

Recommended for:

- Embryonic development
 - Congenital anomalies
 - Placental development
 - Fetal organ development
-

Before We Are Born: Essentials of Embryology and Birth Defects

Moore, Persaud, & Torchia

Excellent resource for understanding fetal development and developmental abnormalities.

Prenatal Care

Obstetrics: Normal and Problem Pregnancies

Gabbe et al.

Useful reference for:

- Prenatal complications
- Screening
- Maternal conditions
- Risk identification

Particularly valuable when studying consultation and referral criteria.

Prenatal and Postnatal Care: A Woman-Centered Approach

Provides practical guidance regarding routine prenatal assessment and client education.

Labor and Birth

Heart & Hands: A Midwife's Guide to Pregnancy and Birth

Elizabeth Davis

A classic community midwifery text emphasizing:

- Physiologic birth
 - Homebirth care
 - Clinical judgment
-

Spiritual Midwifery

Ina May Gaskin

Provides insight into:

- Physiologic birth
- Birth support
- Community birth traditions

Best used as a supplemental philosophical resource.

Ina May's Guide to Childbirth

Ina May Gaskin

Helpful for understanding:

- Normal labor
 - Birth physiology
 - Birth support techniques
-

Postpartum Care

The Womanly Art of Breastfeeding

La Leche League International

Recommended for:

- Lactation physiology
 - Breastfeeding support
 - Troubleshooting common feeding issues
-

Breastfeeding and Human Lactation

Riordan & Wambach

Comprehensive text covering:

- Lactation physiology
 - Milk production
 - Breastfeeding challenges
 - Clinical lactation management
-

Newborn Care

Care of the Well Newborn

Klaus & Fanaroff

Excellent reference for:

- Normal newborn adaptation
- Assessment findings
- Newborn physiology

Newborn Care: What Every Parent Needs to Know

American Academy of Pediatrics

Useful overview of newborn health and development.

Neonatal Resuscitation and Emergencies

Neonatal Resuscitation Program (NRP) Textbook

American Academy of Pediatrics

Recommended for:

- Newborn stabilization
- Positive pressure ventilation
- Neonatal emergency response

Candidates should understand neonatal resuscitation principles appropriate to community birth practice.

Pharmacology

Pharmacology for Midwives

Sarah Strouss

Useful introduction to:

- Medications commonly encountered in maternity care
 - Medication safety
 - Maternal-newborn pharmacology
-

Davis's Drug Guide for Nurses

Helpful reference for medication indications, contraindications, and adverse effects.

Genetics and Prenatal Screening

Thompson & Thompson Genetics in Medicine

Recommended for:

- Basic genetics
- Inheritance patterns
- Prenatal screening

- Congenital disorders
-

Professional Practice and Ethics

Ethics and Issues in Contemporary Nursing

Burkhardt & Nathaniel

Useful for:

- Ethical decision-making
 - Informed consent
 - Professional boundaries
 - Client autonomy
-

Midwives Model of Care® Resources

Midwives Alliance of North America (MANA)

Recommended reading regarding:

- Physiologic birth
 - Community birth philosophy
 - Client-centered care
-

Breastfeeding Resources

Academy of Breastfeeding Medicine (ABM) Clinical Protocols

<https://www.bfmed.org>

Evidence-based guidance regarding:

- Lactation support
 - Breastfeeding complications
 - Clinical management
-

Professional Organizations and Educational Resources

National Fellowship of Direct-Entry Midwives (NFDEM)

- Certification standards
- Professional resources
- Continuing education

National Association of Certified Professional Midwives (NACPM)

- Professional standards
- Advocacy resources

International Confederation of Midwives (ICM)

- Global competencies
 - Professional standards
-

Evidence-Based Clinical Resources

Cochrane Library

High-quality systematic reviews on maternity care topics.

PubMed

Biomedical literature database for current research.

Evidence Based Birth®

Evidence summaries on common maternity care topics.

World Health Organization (WHO)

Maternal and newborn health guidelines.

Centers for Disease Control and Prevention (CDC)

Maternal-child health recommendations, vaccination guidance, and infectious disease information.

Suggested Study Approach

Candidates are encouraged to:

1. **Begin with the study guide.**
2. **Review foundational anatomy and physiology.**
3. **Study normal pregnancy, birth, postpartum, and newborn physiology before focusing on complications.**
4. **Practice applying knowledge through clinical scenarios.**
5. **Review consultation, referral, and transfer criteria.**
6. **Focus on clinical reasoning rather than memorization alone.**
7. **Supplement textbook study with current evidence-based guidelines and professional resources.**

Professional Practice, Ethics, Legal Issues, Emergency Preparedness, and Midwifery Business Operations

I. Foundations of Direct-Entry Midwifery Practice

Role of the Direct-Entry Midwife

- Philosophy of physiologic birth
- Continuity of care model
- Client-centered care
- Scope of practice
- Professional accountability

Core Midwifery Values

- Respect for maternal autonomy
- Informed decision-making
- Shared decision-making
- Evidence-informed practice
- Cultural humility

II. Professional Standards and Scope of Practice

Scope of Practice

- Services appropriate for homebirth midwives
- Limitations of practice
- Recognition versus treatment
- Consultation, referral, and transfer

Professional Boundaries

- Maintaining therapeutic relationships
- Dual relationships
- Boundary violations
- Social media considerations

Continuing Competency

- Continuing education

- Skills maintenance
 - Certification requirements
 - Professional development
-

III. Informed Consent and Informed Refusal

Elements of Informed Consent

- Risks
- Benefits
- Alternatives
- Client understanding
- Voluntary decision-making

Documentation Requirements

- Recording informed consent discussions
- Refusal of recommended care
- High-risk decisions

Informed Refusal

- Respecting maternal autonomy
 - Documentation strategies
 - Ongoing counseling
 - Risk communication
-

IV. Ethics in Midwifery Practice

Ethical Principles

- Autonomy
- Beneficence
- Nonmaleficence
- Justice
- Fidelity

Ethical Decision-Making

- Balancing risks and benefits
- Managing conflicting values

- Supporting client choice
- Professional responsibility

Common Ethical Challenges

- Refusal of recommended transfer
 - Declining laboratory testing
 - Refusal of newborn interventions
 - High-risk homebirth requests
-

V. Legal Considerations

State Regulations

- Midwifery laws
- Licensing requirements
- Regulatory agencies
- Documentation requirements

Mandatory Reporting

- Child abuse
- Elder abuse
- Domestic violence reporting requirements
- Communicable disease reporting

Confidentiality and Privacy

- Protected health information (PHI)
 - Client privacy
 - Release of records
 - Secure communication
-

VI. Documentation and Recordkeeping

Medical Records

- Prenatal records
- Labor records
- Birth records
- Postpartum records

- Newborn records

Documentation Principles

- Accuracy
- Timeliness
- Objectivity
- Completeness

Incident Documentation

- Unexpected outcomes
 - Adverse events
 - Transfers
 - Emergency situations
-

VII. Risk Assessment and Client Selection

Appropriate Candidate Selection

- Low-risk pregnancy criteria
- Homebirth eligibility
- Ongoing risk assessment

Identifying Risk Factors

- Medical history
- Obstetric history
- Social factors
- Environmental concerns

Changing Risk Status

- Prenatal complications
 - Emerging risk factors
 - Reassessment throughout pregnancy
-

VIII. Consultation, Referral, and Transfer of Care

Consultation

- When specialist input is indicated
- Collaborative care models

Referral

- Indications for referral
- Communication with specialists

Transfer of Care

- Prenatal transfer
- Intrapartum transfer
- Postpartum transfer
- Newborn transfer

Documentation of Transfer

- Communication
 - Records transfer
 - Follow-up responsibilities
-

IX. Emergency Preparedness

Emergency Planning

- Emergency protocols
- Communication plans
- Hospital relationships
- EMS activation

Emergency Equipment

- Oxygen
- Airway equipment
- Suction equipment
- Neonatal resuscitation supplies
- Hemorrhage supplies

Medication Management

- Storage requirements
 - Expiration monitoring
 - Inventory management
-

X. Maternal Emergencies

Obstetric Hemorrhage

- Recognition
- Initial response
- Escalation of care

Hypertensive Emergencies

- Severe hypertension
- Preeclampsia
- Eclampsia

Shock

- Recognition
- Stabilization

Emergency Transport Decisions

- When immediate transport is required
 - Communication with EMS
-

XI. Neonatal Emergencies

Initial Newborn Assessment

- Respiratory status
- Heart rate
- Tone
- Color

Neonatal Resuscitation Preparedness

- Equipment readiness
- Team roles
- Emergency response

Newborn Transport Criteria

- Respiratory distress
 - Prematurity
 - Congenital anomalies
 - Sepsis concerns
-

XII. Infection Prevention and Control

Standard Precautions

- Hand hygiene
- Personal protective equipment
- Exposure prevention

Sterilization and Disinfection

- Equipment processing
- Clean versus sterile technique

Bloodborne Pathogens

- Exposure management
 - Post-exposure procedures
-

XIII. Communication and Interprofessional Collaboration

Communication Skills

- Active listening
- Client education
- Difficult conversations

Working with Other Providers

- Physicians
- Hospitals
- EMS personnel
- Lactation consultants
- Specialists

Conflict Resolution

- Professional disagreements
 - Transfer situations
 - Collaborative care challenges
-

XIV. Cultural Competence and Family-Centered Care

Respect for Diversity

- Cultural practices

- Religious beliefs
- Family traditions

Trauma-Informed Care

- Recognizing trauma
- Creating safety
- Supporting informed choice

Family Dynamics

- Partner involvement
- Extended family participation
- Client advocacy

XV. Midwifery Practice Management

Business Operations

- Practice policies
- Scheduling systems
- Billing practices
- Fee structures

Insurance and Liability

- Professional liability coverage
- Documentation protection
- Risk management

Financial Management

- Contracts
- Payment policies
- Tax obligations
- Business records

XVI. Quality Improvement and Risk Management

Quality Assurance

- Chart review
- Outcome tracking

- Peer review

Risk Reduction Strategies

- Practice protocols
- Emergency drills
- Continuing education

Adverse Event Review

- Root cause analysis
 - Corrective actions
 - System improvement
-

XVII. Professionalism and Leadership

Professional Conduct

- Accountability
- Integrity
- Reliability

Advocacy

- Maternal-child health advocacy
- Midwifery advocacy
- Community education

Leadership Development

- Mentorship
 - Teaching
 - Professional involvement
-

XVIII. Homebirth Practice Considerations

Home Environment Assessment

- Safety evaluation
- Emergency access
- Transportation planning

Birth Team Preparation

- Roles and responsibilities

- Equipment readiness
- Emergency drills

Planning for Unexpected Events

- Maternal emergencies
 - Neonatal emergencies
 - Weather and environmental concerns
-

XIX. Client Education and Shared Decision-Making

Prenatal Education

- Nutrition
- Birth planning
- Warning signs

Birth Planning

- Expectations
- Emergency contingencies
- Informed choice

Postpartum Planning

- Recovery
 - Breastfeeding
 - Newborn care
-

XX. Professional Documents and Policies

Practice Guidelines

- Policies and procedures
- Standing orders
- Emergency protocols

Client Agreements

- Care contracts
- Financial agreements
- Disclosure documents

Record Retention

- Storage requirements
- Confidential destruction
- Legal considerations

Reproductive Anatomy, Physiology, Fertility Awareness, Conception, Family Planning, and Early Pregnancy

I. Female Reproductive Anatomy

External Reproductive Structures

- Mons pubis
- Labia majora
- Labia minora
- Clitoris
- Vestibule
- Perineum

Internal Reproductive Structures

- Vagina
- Cervix
- Uterus
- Fallopian tubes
- Ovaries

Functions of Reproductive Organs

- Ovulation
- Fertilization
- Implantation
- Menstruation
- Pregnancy support

II. Male Reproductive Anatomy and Physiology

Male Reproductive Structures

- Testes
- Epididymis
- Vas deferens
- Seminal vesicles
- Prostate gland
- Penis

Sperm Production and Function

- Spermatogenesis
- Sperm maturation
- Sperm transport
- Fertilization process

Factors Affecting Male Fertility

- Temperature
- Lifestyle factors
- Medical conditions
- Environmental exposures

III. Endocrine Regulation of the Menstrual Cycle

Hypothalamic-Pituitary-Ovarian Axis

Gonadotropin-Releasing Hormone (GnRH)

- Function
- Hormonal regulation

Follicle-Stimulating Hormone (FSH)

- Follicular development
- Ovarian response

Luteinizing Hormone (LH)

- LH surge
- Ovulation trigger

IV. Ovarian Cycle

Follicular Phase

- Follicle recruitment
- Follicle maturation
- Rising estrogen levels

Ovulation

- Ovulatory signs
- Timing of ovulation
- Hormonal changes

Luteal Phase

- Corpus luteum function
- Progesterone production
- Endometrial preparation

Luteal Phase Defects

- Recognition
- Fertility implications

V. Menstrual Cycle Physiology

Menstruation

- Endometrial shedding
- Normal menstrual patterns

Cycle Characteristics

- Cycle length
- Menstrual flow
- Normal variation

Hormonal Influences

- Estrogen effects
- Progesterone effects

VI. Fertility Awareness Methods (FAM)

Principles of Fertility Awareness

Cervical Mucus Monitoring

- Dry days

- Sticky mucus
- Creamy mucus
- Egg-white cervical mucus
- Peak Day identification

Basal Body Temperature (BBT)

- Temperature patterns
- Biphasic charts
- Confirming ovulation

Cervical Changes

- Position
- Firmness
- Openness

Symptothermal Method

- Combining fertility signs
- Determining fertile and infertile phases

VII. Ovulation Recognition

Physiologic Signs of Ovulation

- Cervical mucus changes
- Mittelschmerz
- Libido changes
- Cervical changes

Ovulation Predictor Kits (OPKs)

- Mechanism of action
- Interpretation
- Limitations

Confirming Ovulation

- BBT shift
- Peak mucus
- Hormonal indicators

VIII. Fertile Window Identification

Sperm Survival

- Lifespan in reproductive tract
- Factors affecting survival

Ovum Survival

- Fertility after ovulation

Determining Fertile Days

- Calendar calculations
- Fertility-awareness methods
- Chart interpretation

Cycle Variability

- Regular cycles
 - Irregular cycles
 - Postpartum cycles
-

IX. Fertility Charting

Chart Components

- Cycle days
- Mucus observations
- Temperature recordings
- Cervical findings

Chart Interpretation

- Identifying ovulation
- Determining fertile periods
- Recognizing abnormalities

Common Charting Errors

- Incomplete observations
 - Temperature disturbances
 - Misinterpretation of mucus patterns
-

X. Conception and Fertilization

Fertilization Process

- Sperm transport
- Egg penetration
- Zygote formation

Early Embryonic Development

- Cleavage
- Morula
- Blastocyst formation

Implantation

- Timing
 - Hormonal support
 - Endometrial changes
-

XI. Early Pregnancy Physiology

Hormonal Changes

- Human chorionic gonadotropin (hCG)
- Progesterone
- Estrogen

Maternal Adaptations

- Early pregnancy symptoms
- Physiologic changes

Pregnancy Recognition

- Presumptive signs
 - Probable signs
 - Positive signs
-

XII. Pregnancy Dating

Menstrual Dating

- Last menstrual period (LMP)
- Naegele's Rule

Ovulation-Based Dating

- Conception dating
- Fertility-awareness dating

Estimated Due Date (EDD)

- Calculation methods
 - Accuracy considerations
-

XIII. Lactational Amenorrhea Method (LAM)

Physiology of Lactational Infertility

Requirements for Effectiveness

- Exclusive breastfeeding
- Amenorrhea
- Infant age limitations

Effectiveness and Limitations

Return of Fertility

- Ovulation before first menses
 - Counseling considerations
-

XIV. Family Planning and Contraception

Fertility Awareness-Based Methods

- Effectiveness
- Appropriate use

Barrier Methods

- Condoms
- Diaphragms
- Spermicides

Hormonal Methods

- Combined hormonal contraception
- Progestin-only methods

Long-Acting Reversible Contraception

- IUDs
- Implants

Permanent Methods

- Tubal ligation
 - Vasectomy
-

XV. Postpartum Fertility

Return of Ovulation

- Breastfeeding clients
- Non-breastfeeding clients

Counseling for Family Planning

Postpartum Fertility Awareness

Pregnancy Spacing Recommendations

XVI. Infertility and Subfertility

Definitions

- Infertility
- Subfertility

Common Female Factors

- Ovulatory dysfunction
- Tubal factors
- Endometriosis

Common Male Factors

- Sperm abnormalities
- Structural issues

Initial Assessment

- History
 - Chart review
 - Referral considerations
-

XVII. Polycystic Ovary Syndrome (PCOS)

Pathophysiology

Clinical Presentation

- Irregular cycles
- Anovulation
- Hyperandrogenism

Fertility Implications

Management Considerations

XVIII. Hormonal Disorders Affecting Fertility

Thyroid Disorders

Hyperprolactinemia

Luteal Phase Defects

Hypothalamic Dysfunction

Ovarian Insufficiency

XIX. Gestational Trophoblastic Disease

Hydatidiform Mole (Molar Pregnancy)

Complete Mole

- Clinical features
- Ultrasound findings
- hCG patterns

Partial Mole

- Clinical features
- Diagnosis

Follow-Up Care

- hCG surveillance
 - Contraception recommendations
 - Referral and management
-

XX. Reproductive Health Counseling

Fertility Counseling

- Achieving pregnancy
- Avoiding pregnancy

Informed Choice

- Method selection
- Risks and benefits

Client Education

- Cycle awareness
- Reproductive health literacy

Shared Decision-Making

- Individualized family planning
 - Respect for client goals
-

XXI. Interpretation of Reproductive Health Data

Hormone Levels

- FSH
- LH
- Progesterone
- hCG

Fertility Charts

Cycle Patterns

Clinical Decision-Making Based on Data

XXII. Professional Counseling and Communication

Teaching Fertility Awareness

Discussing Sensitive Topics

Supporting Diverse Family Goals

Ethical Considerations in Reproductive Care

Embryology, Fetal Development, Genetics, Prenatal Physiology, and Maternal Adaptations to Pregnancy

I. Human Reproduction and Conception

Fertilization

- Sperm transport
- Capacitation
- Fertilization process
- Formation of the zygote

Early Cellular Development

- Cleavage
- Morula
- Blastocyst formation

Implantation

- Timing
- Endometrial changes
- Hormonal support

II. Embryonic Development

Embryonic Period

- Weeks 3–8
- Organogenesis
- Critical periods of development

Germ Layers

Ectoderm

- Nervous system
- Skin
- Sensory organs

Mesoderm

- Musculoskeletal system
- Cardiovascular system
- Kidneys

Endoderm

- Gastrointestinal tract

- Respiratory tract
 - Internal organs
-

III. Fetal Development by Trimester

First Trimester Development

- Neural tube formation
- Cardiac development
- Limb development
- Facial development

Second Trimester Development

- Skeletal growth
- Organ maturation
- Fetal movement
- Vernix and lanugo

Third Trimester Development

- Rapid weight gain
 - Brain growth
 - Lung maturation
 - Fat accumulation
-

IV. Fetal Organ System Development

Cardiovascular Development

- Primitive heart tube
- Cardiac septation
- Fetal circulation

Respiratory Development

- Lung formation
- Surfactant production
- Lung maturity

Renal Development

- Kidney formation

- Urine production
- Amniotic fluid contribution

Gastrointestinal Development

- Intestinal development
- Meconium formation

Neurologic Development

- Neural tube formation
- Brain development
- Reflex development

V. Fetal Circulation

Unique Structures

- Ductus venosus
- Foramen ovale
- Ductus arteriosus

Blood Flow Through the Fetus

Changes at Birth

- Closure of fetal shunts
- Transition to neonatal circulation

Clinical Significance

- Congenital cardiac abnormalities
- Transitional circulation issues

VI. Placental Development and Function

Placental Formation

Placental Anatomy

- Maternal surface
- Fetal surface
- Chorionic villi

Placental Functions

- Gas exchange

- Nutrient transfer
- Waste removal
- Hormone production

Placental Hormones

- hCG
 - Progesterone
 - Estrogen
 - Human placental lactogen (hPL)
-

VII. Umbilical Cord Development

Normal Cord Anatomy

- Two arteries
- One vein

Cord Function

Cord Abnormalities

- Single umbilical artery
 - Velamentous insertion
 - Marginal insertion
 - True knots
 - Nuchal cord
-

VIII. Amniotic Fluid

Formation and Regulation

Functions

- Cushioning
- Temperature regulation
- Lung development
- Musculoskeletal development

Normal Volume Changes

Abnormalities

- Polyhydramnios

- Oligohydramnios

IX. Maternal Physiologic Adaptations to Pregnancy

Cardiovascular Changes

- Increased blood volume
- Increased cardiac output
- Physiologic anemia

Respiratory Changes

- Increased oxygen consumption
- Increased tidal volume

Renal Changes

- Increased GFR
- Urinary tract adaptations

Gastrointestinal Changes

- Nausea and vomiting
- Delayed gastric emptying
- Constipation

Musculoskeletal Changes

- Postural changes
- Relaxin effects
- Pelvic adaptations

X. Endocrine Adaptations in Pregnancy

Progesterone

- Maintenance of pregnancy
- Smooth muscle relaxation

Estrogen

- Uterine growth
- Increased blood flow

hCG

- Corpus luteum support

- Pregnancy testing

Human Placental Lactogen (hPL)

- Maternal insulin resistance
- Fetal nutrient supply

Relaxin

- Pelvic ligament softening
 - Cervical ripening
-

XI. Genetics and Inheritance

Basic Genetic Principles

- Chromosomes
- Genes
- DNA

Types of Inheritance

- Autosomal dominant
- Autosomal recessive
- X-linked inheritance

Multifactorial Disorders

Family History Assessment

XII. Chromosomal Disorders

Trisomy 21 (Down Syndrome)

Trisomy 18 (Edwards Syndrome)

Trisomy 13 (Patau Syndrome)

Turner Syndrome

Klinefelter Syndrome

Prenatal Screening Considerations

XIII. Congenital Anomalies

Neural Tube Defects

- Spina bifida

- Anencephaly
- Encephalocele

Abdominal Wall Defects

- Omphalocele
- Gastroschisis

Cardiac Defects

- Ventricular septal defects
- Tetralogy of Fallot

Renal Abnormalities

- Renal agenesis
- Polycystic kidneys

Skeletal Abnormalities

XIV. Teratology

Critical Periods of Exposure

Medication Exposure

Substance Exposure

- Alcohol
- Tobacco
- Illicit drugs

Environmental Exposures

- Radiation
- Chemicals
- Infectious agents

Prevention Strategies

XV. Maternal Infections and Fetal Effects

TORCH Infections

Toxoplasmosis

Rubella

Cytomegalovirus (CMV)

Herpes Simplex Virus

Other Significant Infections

- Varicella
- Parvovirus B19
- Syphilis
- HIV

Prevention and Counseling

XVI. Prenatal Screening and Diagnostic Testing

Screening Tests

- Maternal serum screening
- Cell-free DNA testing
- Ultrasound screening

Diagnostic Tests

- Chorionic villus sampling (CVS)
- Amniocentesis

Indications

- Maternal age
 - Family history
 - Abnormal screening results
-

XVII. Ultrasound and Fetal Assessment

First Trimester Ultrasound

- Dating
- Viability
- Number of fetuses

Second Trimester Ultrasound

- Anatomy survey
- Placental location

Third Trimester Assessment

- Growth

- Amniotic fluid volume
 - Fetal presentation
-

XVIII. Multifetal Gestation

Types of Twins

- Monozygotic
- Dizygotic

Chorionicity and Amnionicity

Maternal Risks

Fetal Risks

Homebirth Considerations

XIX. Fetal Growth and Developmental Milestones

Fetal Movement

- Quickening
- Movement patterns

Fetal Weight Gain

Organ Maturation

Viability Milestones

Developmental Benchmarks by Gestational Age

XX. Nutrition and Fetal Development

Folic Acid

- Neural tube defect prevention

Iron

- Maternal and fetal needs

Calcium

- Skeletal development

Protein Requirements

Essential Fatty Acids

Micronutrients in Pregnancy

XXI. Pregnancy Loss and Developmental Failure

Early Pregnancy Loss

Blighted Ovum

Missed Miscarriage

Embryonic Developmental Failure

Counseling and Support

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Recognizing Developmental Red Flags

Anticipating Potential Complications

Appropriate Consultation and Referral

Prenatal Care, Maternal Assessment, Screening, Common Pregnancy Conditions, and Risk Identification

I. Foundations of Prenatal Care

Goals of Prenatal Care

- Promoting maternal health
- Supporting fetal well-being
- Risk identification
- Prevention and early intervention
- Client education and informed decision-making

Components of Prenatal Care

- History taking
 - Physical assessment
 - Laboratory evaluation
 - Ongoing surveillance
 - Client counseling
-

II. Initial Prenatal Assessment

Health History

- Medical history
- Surgical history
- Obstetric history
- Family history
- Social history

Pregnancy Dating

- Last menstrual period (LMP)
- Estimated due date (EDD)
- Ultrasound dating
- Fertility-awareness dating

Risk Assessment

- Maternal age
 - Chronic illness
 - Previous pregnancy complications
 - Lifestyle factors
-

III. Physical Assessment During Pregnancy

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- Blood pressure
- Pulse
- Respiratory rate
- Temperature

Maternal Measurements

- Height
- Weight
- BMI

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 - Respiratory assessment
 - Thyroid assessment
 - Breast examination
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IV. Prenatal Laboratory Testing

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- Blood type
- Rh factor
- Antibody screen
- Complete blood count (CBC)

Infectious Disease Screening

- Rubella
- Hepatitis B

- HIV
- Syphilis
- Gonorrhea
- Chlamydia

Urinalysis

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- Prevention

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- Fatigue
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- Technique
- Expected growth patterns
- Interpretation

Fetal Movement

- Quickening
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- Methods
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X. Fetal Heart Rate Assessment

Normal Fetal Heart Rate

Doppler Assessment

Variations in Fetal Heart Rate

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 - Bradycardia
 - Persistent abnormalities
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XI. Ultrasound in Prenatal Care

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- Dating
- Viability
- Multiple gestation

Second Trimester Anatomy Scan

Third Trimester Assessment

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- Presentation
- Amniotic fluid

Placental Evaluation

XII. Prenatal Screening and Genetic Testing

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First Trimester Screening

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Genetic Counseling

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Potential Maternal and Fetal Risks

XIV. Hypertensive Disorders of Pregnancy

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Eclampsia

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Identifying Red Flags

Prioritizing Maternal and Fetal Safety

Applying Prenatal Knowledge to Homebirth Practice

Determining When Homebirth Remains Appropriate

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Stages and Phases of Labor

- Latent phase
- Active labor
- Transition
- Second stage
- Third stage
- Fourth stage

Normal Labor Patterns

- Contraction frequency
- Contraction duration
- Cervical dilation
- Effacement

- Station
- Fetal descent

Signs of Labor Progress

- Bloody show
 - Mucus plug
 - Rupture of membranes
 - Increasing contraction intensity
 - Urge to push
-

II. Fetal Position and Mechanisms of Labor

Fetal Positions

- Occiput anterior
- Occiput posterior
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 - Frank breech
 - Complete breech
 - Incomplete breech
- Brow presentation
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Cardinal Movements of Labor

- Engagement
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- Internal rotation
- Extension
- External rotation
- Expulsion

Leopold's Maneuvers

- Assessment of fetal lie
- Assessment of fetal position

- Assessment of presenting part
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III. Cervical Assessment

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- Ripening
- Softening
- Effacement
- Dilation

Cervical Edema

- Causes
- Recognition
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- Recognition
 - Clinical significance
 - Management options
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- Pelvic rocking
- Runner's lunge
- Upright positions
- Movement in labor

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- Hydration
- Nutrition
- Rest
- Relaxation techniques
- Breathing techniques

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 - Risks
 - Contraindications
 - Water temperature recommendations
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V. Fetal Heart Rate Assessment

Normal Fetal Heart Rate

- Baseline ranges
- Variability

Fetal Surveillance

- Intermittent auscultation
- Frequency of assessment

Decelerations

- Early decelerations
- Variable decelerations
- Late decelerations

Non-Reassuring Patterns

- Minimal variability
- Absent variability
- Bradycardia
- Persistent decelerations

Initial Interventions

- Maternal repositioning
 - Oxygen administration
 - Hydration
 - Escalation of care
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VI. Rupture of Membranes

Types

- Intact membranes
- Spontaneous rupture

- Prolonged rupture

Assessment

- Fluid color
- Odor
- Meconium

Infection Risk

- Chorioamnionitis
 - Minimizing vaginal examinations
 - Client counseling and informed choice
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- Turtle sign
- Failure of restitution
- Failure of shoulder delivery

Initial Management

- Maternal position changes
- McRoberts maneuver
- Suprapubic pressure

Advanced Management

- Internal maneuvers
- Posterior arm release
- Rotational maneuvers

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 - Clavicular fracture
 - Hypoxia
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VIII. Breech Birth

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- Frank

- Complete
- Incomplete

Candidate Selection

- Risk assessment
- Provider skill requirements
- Informed consent

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- Recognition of complications
- Nuchal arms
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IX. Umbilical Cord Complications

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- Relieving cord compression
- Maternal positioning
- Manual elevation of presenting part
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X. VBAC and Uterine Rupture

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- Candidate selection
- Labor monitoring

Uterine Rupture

- Risk factors
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XI. Placenta and Third Stage Management

Placental Anatomy

- Maternal surface
- Fetal surface
- Cotyledons
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- Cord lengthening
- Gush of blood
- Firm uterus

Mechanisms of Delivery

- Schultze
- Duncan

Retained Placenta

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- Conservative management
- Manual removal

XII. Postpartum Hemorrhage

Causes

- Uterine atony
- Retained placental tissue

- Lacerations
- Hematomas

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- Early signs
- Compensatory maternal responses

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- Fundal massage
- Emptying bladder
- Uterotonics
- Manual clot removal
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XIII. Perineal Trauma and Repair

Degrees of Laceration

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- Fourth degree

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- Muscle involvement
- Cervical inspection
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XIV. Placental and Cord Abnormalities

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Vasa Previa

Placenta Accreta Spectrum

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 - Increta
 - Percreta
-

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- Respiratory transition
- Circulatory transition
- Closure of fetal shunts

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- Breastfeeding initiation
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- Jaundice within 24 hours
- Poor tone
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- Secondary apnea

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- Black cohosh
- Angelica
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- Yarrow
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Postpartum Care, Maternal Recovery, Lactation, Newborn Feeding, and Postpartum Complications

I. Foundations of Postpartum Care

Goals of Postpartum Care

- Promote maternal recovery
- Support newborn adaptation
- Support breastfeeding
- Identify complications early
- Promote family adjustment

The Postpartum Period

- Immediate postpartum
- Early postpartum
- Extended postpartum
- Fourth trimester concept

Homebirth Postpartum Care Model

- Frequency of visits
- Ongoing assessment
- Client education

II. Maternal Physiologic Recovery

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- Normal progression
- Fundal assessment
- Expected timeline

Cervical Changes

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- Edema resolution
- Return of tone

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- Color
- Amount
- Duration

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- Retained products concerns

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Normal Postpartum Findings

- Blood pressure
- Pulse
- Temperature
- Respirations

Breast Assessment

Uterine Assessment

Bladder Function

Bowel Function

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V. Postpartum Hemorrhage

Definition

Primary Postpartum Hemorrhage

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Causes

- Uterine atony
- Retained placental tissue
- Lacerations
- Hematomas

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Troubleshooting Feeding Difficulties

X. Common Breastfeeding Challenges

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Identifying Normal Recovery

Recognizing Deviations from Normal

Prioritizing Maternal Safety

Supporting Breastfeeding Success

Determining When Higher-Level Care Is Needed

Newborn Assessment, Normal Neonatal Physiology, Feeding, Adaptation to Extrauterine Life, and Recognition of Newborn Complications

I. Foundations of Newborn Care

Goals of Newborn Assessment

- Evaluate adaptation to extrauterine life
- Identify normal findings
- Detect abnormalities early
- Support physiologic transition
- Promote maternal-infant bonding

Homebirth Newborn Care Principles

- Continuous observation
 - Family-centered care
 - Physiologic transition support
 - Early recognition of emergencies
-

II. Immediate Newborn Transition

Transition from Fetal to Neonatal Life

Respiratory Adaptation

- Initiation of breathing
- Clearance of lung fluid
- Establishment of functional residual capacity

Cardiovascular Adaptation

- Closure of fetal shunts

- Changes in circulation
- Oxygenation after birth

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- Heat production
 - Heat loss prevention
 - Skin-to-skin care
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III. Initial Newborn Assessment

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- Color
- Tone
- Respiratory effort
- Responsiveness

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IX. Head, Eyes, Ears, Nose, and Throat Assessment

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- Molding
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- Eye movement
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- Transitional stools
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