Reproductive Choices

CHAPTER 12
Reproductive Choices

Choosing a contraceptive method

◦ About half of all pregnancies in the United States are unintended
◦ Unintended pregnancies nearly always cause stress and life disruption and are associated with poorer health outcomes

Communicating about contraception

◦ You and your partner should decide together how to best protect each other from STDs and unintended pregnancy
Which Contraceptive Method Is Right for You?

Considerations to evaluate when choosing contraception:

◦ Effectiveness
◦ Cost
◦ Convenience
◦ Permanence
◦ Safety
◦ Protection against STIs
◦ Consistency with personal values
Abstinence

Abstinence is the only guaranteed method of preventing pregnancy and STI transmission

- In heterosexual couples who have vaginal intercourse and use no contraceptive method, 85% of the women will become pregnant in one year
- Abstinence requires control and commitment
Hormonal Contraceptive Methods

Work by preventing ovulation or making it harder for sperm to reach ova, uterine lining affected so fertilized egg less likely to be implanted

Prescribed by a health care provider

<table>
<thead>
<tr>
<th>Potential side effects</th>
<th>Breast tenderness, nausea, headaches, spotting, weight gain, sex drive fluctuation, frequent vaginal infections, mild depression</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advantages</td>
<td>Effective, easy to use, limited side effects, reduces menstrual cramping, ovarian cysts, endometriosis, and risk of certain cancers</td>
</tr>
<tr>
<td>Disadvantages</td>
<td>No protection against STIs, minor side effects, mood changes, lowered libido, headaches</td>
</tr>
</tbody>
</table>
Hormonal Contraceptive Methods

Types of hormonal contraceptive methods
- Birth control pills: most popular reversible form of contraception
  - New options allow women to skip monthly period
- Transdermal patch: release estrogen and progesterone into bloodstream via the skin
- Vaginal contraceptive ring: flexible plastic ring placed in vagina for 21 days
- Injectable contraceptive (Depo-Provera): progesterone shot by health care provider every three months
- Contraceptive implant: flexible plastic rod that contains progesterone inserted under skin of the upper arm that slowly release hormones
Serious Side Effects of Hormonal Contraceptives

- **Blurry vision or loss of vision**: Migraine, blood clot behind eye, change in shape of eye/cornea so contact lenses don’t fit
- **Headaches**: Migraine, hypertension, stroke
- **Chest pain**: Blood clot in lungs, heart attack
- **Abdominal pain**: Gallstones, blood clot in pelvic veins or liver, benign tumor in liver
- **Severe leg pain in leg**:
The IUD

Intrauterine device (IUD):
- T-shaped item inserted into the uterus
- Long-acting reversible contraceptive
- Believed to work by altering the uterine and cervical fluids to reduce the chance that sperm will move up into the fallopian tubes
- Copper IUD can be left in place for 10 years
- The progesterone IUD can remain for 5 years
- Women who chose this birth control method are taught how to check that the IUD is properly located; this check is done monthly
Barrier Methods

Physically separate the sperm from the female reproductive tract

To increase effectiveness, sometimes need a *spermicide*, a chemical agent that kills sperm

<table>
<thead>
<tr>
<th>Male and female condom</th>
<th>Latex or polyurethane</th>
<th>Decreases the risk of contracting an STI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diaphragm</td>
<td>Circular rubber dome inserted in the vagina before intercourse; covers the cervix and is applied with spermicide</td>
<td>A health care provider must correctly fit and provide instructions for use; Risk of toxic shock syndrome</td>
</tr>
</tbody>
</table>
## Barrier Methods

<table>
<thead>
<tr>
<th><strong>Cervical cap</strong></th>
<th>Small cuplike rubber device that covers only the cervix, used with spermicide</th>
<th>A health care provider must correctly fit and provide instructions for use</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Contraceptive sponge</strong></td>
<td>Over-the-counter product that fits over the cervix and is used with spermicide to act as a barrier</td>
<td>Should not be used during menstruation; may be less effective in women who have had a pregnancy; Risk of toxic shock syndrome</td>
</tr>
</tbody>
</table>
Fertility Awareness–Based Methods

Contraceptive method based on abstinence (or using a barrier contraceptive) during the window of time around ovulation when a woman is most likely to conceive

- Standard Days Method (calculating the unsafe days of ovulation)
  - Woman must have a regular cycle
- Two Day Method (evaluate consistency of vaginal discharge to predict ovulation; check basal body temperature)
# Fertility Awareness–Based Methods

<table>
<thead>
<tr>
<th>Days</th>
<th>Event</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>1–7</td>
<td>Menstruation</td>
<td>Relatively safe for unprotected intercourse</td>
</tr>
<tr>
<td>8–13</td>
<td>Unprotected intercourse should not occur</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Ovulation</td>
<td></td>
</tr>
<tr>
<td>15–19</td>
<td>Unprotected intercourse should not occur</td>
<td></td>
</tr>
<tr>
<td>20–28</td>
<td>Relatively safe for unprotected intercourse</td>
<td></td>
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</tbody>
</table>
Withdrawal

*Withdrawal*: a contraceptive method in which the man removes his penis from the vagina before ejaculating

- Success is dependent on a man’s ability to tell when he is about to ejaculate and to have the self-control to withdraw with impending orgasm

The American College of Obstetrics and Gynecology do not recommend this method

Approximately 18 to 27 percent of women will become pregnant in a year
Emergency Contraception (ECP)

- The *morning-after pill* or *backup birth control*
- Reduces chance of pregnancy by preventing ovulation and fertilization
- Most effective if taken within 48–72 hours and must be taken within 5 days of unprotected intercourse
- Useful when another method fails (condom breaks, or diaphragm or cervical cap slips)
- Will not cause the termination of an existing pregnancy and is not an *abortogenic* (not abortion-causing)
- Useful in cases of forced sex—rape and incest
Sterilization

A surgical procedure that permanently prevents future pregnancies

- **Vasectomy**: male sterilization procedure, involving tying off and severing the vas deferens to prevent sperm from reaching the semen

- **Tubal ligation**: female sterilization procedure involving severing and tying off or sealing the fallopian tubes to prevent ova from reaching the uterus
Vasectomy

Bladder
Seminal vesicle
Previously stored sperm
Vas deferens
Incision made in scrotum
Vas deferens tied and cut or cut and cauterized
Testis
Tubal Ligation
Unintended Pregnancy

It is important to see your physician or health provider as soon as possible to discuss options

- Carry the pregnancy to term and raise the child
- Carry the pregnancy to term and place the child with an adoptive family
- Terminate the pregnancy
Signs of Pregnancy

Prior to the classic sign of pregnancy—missing a period—there are others:

- Breast tenderness and swelling, fatigue, nausea and vomiting, light-headedness or mood swings

A rare complication of early pregnancy is ectopic pregnancy

- Signs of ectopic pregnancy are severe lower abdominal pain or cramping; vaginal spotting
- An ectopic pregnancy is a potentially life-threatening condition
- If you experience these signs, see your physician or go to the emergency room immediately
Deciding to Become a Parent

Are you ready to become a parent? Here are some questions to consider:

- What are your long-term plans?
- What is the status of your relationship?
- Are you emotionally mature enough?
- How are your finances?
- How large is your social support system?
- What is your health status and age?
Adoption provides a permanent family for a child in need

- *Open adoption*: biological parents choose adoptive parents
- *Closed adoption*: biological parents do not choose parents

All forms of adoption require *both* biological parents to relinquish all parental rights

For couples wanting to adopt, international adoptions are becoming increasingly popular in America
Elective Abortion

Since 1973, elective abortion has been legal in the United States; *Roe v. Wade*

- Some restrictions apply as the pregnancy advances through three *trimesters*

The debate over abortion is one of the most highly charged political issues of our time

The lowest rates of abortion occur in countries where abortion is legal and the highest rates where it is illegal

Fifty-nine percent of women having an abortion have one or more children already
Elective Abortion

Voluntary termination of a pregnancy

- *Surgical*: surgical removal of the contents of the uterus to terminate the pregnancy
  - Vacuum aspiration is most common method
- *Medical*: use of a pharmaceutical agent to terminate the pregnancy
  - Mifepristone (formerly known as RU-486)
Infertility: Causes

Low sperm count

Poor sperm mobility

Obstruction of fallopian tubes
  ◦ STI
  ◦ Endometriosis

Lack of ovulation

Abnormalities in the cervical mucus or anatomy

Unknown causes
Infertility: Treatment Options

Surgery

Fertility drugs

Intrauterine insemination

In vitro fertilization:
  ◦ Gamete intrafallopian transfer
  ◦ Zygote intrafallopian transfer
Pregnancy and Prenatal Care

Events and conditions during pregnancy influence the child’s development throughout life

Pregnancy planning

- The best time to have a child is influenced by many factors: educational and career plans, relationship status, health issues, and others
- The least health risk occurs when women have pregnancies between the age of 18 and 35
- Male fertility also declines with age
Pregnancy and Prenatal Care

Prepregnancy counseling typically includes an evaluation of:

- Current health status
- Health behaviors
- Family health history
Nutrition and exercise

- Preconception healthy lifestyle factors help ensure required nutrients available
- Foodborne infections can have more serious effects in pregnant women; avoid unpasteurized foods, soft cheese, and raw or smoked seafood
Pregnancy and Prenatal Care

Women should be up-to-date on routine vaccinations *before* pregnancy

- Especially important are vaccinations for rubella and hepatitis B
Pregnancy and Prenatal Care

Medications and drugs:

- Most substances the mother ingests eventually reach the fetus
- Tobacco and alcohol are the most commonly used drugs during pregnancy
- Illicit drugs have a variety of effects on a fetus, depending on the chemical action of the drug
Pregnancy and Prenatal Care

Regular health care provider visits

- Midwives usually take patients who are at low risk for medical or pregnancy complications
- Your family physician may provide pregnancy-related care, and some deliver babies in birthing centers or hospitals
- Obstetricians are trained to handle all kinds of pregnancies, from low risk to high risk
Complications of Pregnancy

Approximately 15–50% of all pregnancies end in miscarriage, most during the first trimester.

*Gestational diabetes* occurs in some women midway thought the pregnancy

- Women with gestational diabetes are advised to exercise, control their diet, and monitor glucose levels.
Complications of Pregnancy

_Preeclampsia:_ dangerous condition characterized by high blood pressure, fluid retention, possible kidney and liver damage, and potential fetal death

- Signs include facial swelling, headaches, blurred vision, nausea, and vomiting
- Can progress to _eclampsia_, a potentially life-threatening condition marked by seizures and coma
Complications of Pregnancy

Complications of pregnancy for the child

- Approximately 1.2% of all pregnancies end in infant death
- Half of these deaths occur before the fetus is born
  - 80% occur before the 28th week
- After the birth, the leading cause of death are preterm birth, low birth weight, and SIDS
Fetal Development

Within 30 minutes of fertilization the single-celled fertilized ovum (zygote) starts to divide

Week 2 to week 8 is embryonic period, formation of embryo, placenta, and amniotic sac

By week 8, all major body systems and organs are present in rudimentary form

By 16 weeks, mother can feel fetal movements

At 26 weeks, eyes are open, and at 30 weeks a layer of fat begins forming under the skin

Fetus has excellent chance of survival at 36 weeks; full term occurs at 38 weeks
Fetal Development

<table>
<thead>
<tr>
<th>Time</th>
<th>Changes/milestones</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>8 weeks</strong> (end of embryonic period)</td>
<td>By week 8, pregnancy is detectable by physical examination. Head is nearly as large as body. First brain waves can be detected. Limbs are present. Osificalisation (bone growth) begins. Cardiovascular system is fully functional. All body systems are present in at least basic form. Crown-to-rump length: 30 mm (1.2 inches) Weight: 2 grams (0.08 ounce)</td>
</tr>
<tr>
<td><strong>9–12 weeks</strong> (3rd month)</td>
<td>By week 10, fetus responds to stimulation. Head is still large, but body is lengthening. Brain is enlarging. Spinal cord shows definition. Facial features begin to appear. Internal organs are developing. Blood cells are first formed in bone marrow. Skin is apparent. Limbs are well molded. Sex can be recognized from genitals. Crown-to-rump length: 90 mm</td>
</tr>
<tr>
<td><strong>13–16 weeks</strong> (4th month)</td>
<td>By week 14, skeleton is visible on X-ray. Cerebellum becomes prominent. Sensory organs are defined. Blinking of eyes and sucking motions of lips occur. Face has human appearance. Head and body come into greater balance. Most bones are distinct. Crown-to-rump length: 140 mm</td>
</tr>
<tr>
<td><strong>17–20 weeks</strong> (5th month)</td>
<td>By week 17, mother can feel movement of fetus. Fatty secretions (vernix caseosa) cover body. Lanugo (silky hair) covers skin. Fetal position is assumed. Limbs are reaching final proportions. Mother feels “quickening” (movement of fetus). Crown-to-rump length: 190 mm</td>
</tr>
<tr>
<td><strong>21–30 weeks</strong> (6th and 7th months)</td>
<td>By weeks 25–27, survival outside the womb is possible. Substantial weight gain occurs. Myelination (formation of sheath around nerve fibers) of spinal cord begins. Eyes are open. Bones of distal limbs ossify. Skin is wrinkled and red. Fingernails and toenails are present. Tooth enamel is forming. Body is lean and well proportioned. Blood cells are formed in bone marrow only. In males, testes reach scrotum at 7th month. Crown-to-rump length: 280 mm</td>
</tr>
<tr>
<td><strong>30–40 weeks</strong> (8th and 9th months)</td>
<td>Between weeks 32 and 34, survival outside the womb is possible. Skin is whitish pink. Fat is present in subcutaneous tissue. Crown-to-rump length: 360–400 mm Weight: 2.7–4.1 kg (6–10 pounds)</td>
</tr>
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</table>
Diagnosing Problems in a Fetus

About 5% of babies born in the United States have a birth defect

Several tests have been developed to detect abnormalities in a fetus prior to birth

- Ultrasound
- Chromosomal analysis
  - Chorionic villus sampling (CVS)
  - Amniocentesis
Labor and Delivery

Labor begins when hormonal changes in the fetus and the mother cause strong uterine contractions.

Early first stage: cervix thins and begins to open.

Second stage: baby moves downward through the pelvis, cervix, and into the vagina; head emerges, followed by the shoulders and body.

Third stage: contractions continue, and placenta (afterbirth) is expelled.
Labor and Delivery

**Early first stage**
The cervix thins (effacement) and begins to open (dilation). Short contractions (30 seconds) occur in 15- to 20-minute cycles. If the mucus plug that blocked the opening of the cervix during pregnancy gives way, light bleeding may occur (bloody show). The amniotic sac may also rupture (water breaking).

**Late first stage**
In the transition phase, contractions become stronger and more frequent. These contractions may last from 60 to 90 seconds and occur every 1 to 3 minutes. When the cervix is completely open, with a diameter of about 10 centimeters, it is ready for passage of the baby’s head.

**Second stage**
With strong and frequent contractions, the baby moves downward through the pelvic area, past the cervix, and into the vagina. The mother is instructed to “bear down” with the contractions to aid in the baby’s passage through the birth canal. The baby’s head emerges first, followed by the shoulders and rest of the body.

**Third stage**
Contractions of the uterus continue, and the placenta (afterbirth) is expelled. If the placenta is not expelled naturally, the health care provider puts pressure on the mother’s abdomen to make this happen. The entire placenta must be expelled from the uterus or bleeding and infection may result.
Newborn Screening

Babies are evaluated at birth to determine whether they require any medical attention or will need developmental support later.

The Apgar scale is used as a quick measure of the baby’s physical condition.

Most babies are pronounced healthy and taken home within 24 to 48 hours of birth.
The Postpartum Period

The first few weeks or months of parenthood are a period of profound adjustment as parents learn how to care for their newborn.

Issues for the newborn that deserve attention include:

- Growth and nutrition, illness and vaccinations, adjustment and attachment
The Postpartum Period

About 13% of women experience depression in the first year after giving birth

◦ Can be due to hormone changes, broken sleep patterns, self-doubt, a sense of loss of control, and changes in support systems

◦ Can contribute to feelings of sadness, restlessness, loss of interest, guilt, difficulty focusing, and withdrawal
Class Activity

Should the U.S. Provide Paid Family Leave After the Birth of a Child?
Wrap Up

What are the commonly available contraceptive methods?

What are the options in the event of unintended pregnancy?

What are the options when a couple cannot conceive?

What are the basics of prenatal care?

What happens during prenatal development?

What happens during labor and delivery?

What concerns arise during the postpartum period?