Chapter 1: Sexuality: Pathways to Understanding Pages 3-19

- Sexuality is a central and all-pervasive theme of human existence
  - At its best:
    - charges our lives with energy, excitement and love
    - offers a deep sense of connectedness capable of spanning and healing social divisions
    - Creates family
  - At its worst:
    - Brings prejudice, anguish, violence and disease

- Sexuality is a broader concept than just sex
  - **DEFINITION:** Sex = a person’s identity as female or male, or sexual behavior
    - Includes obvious sexual phenomena such as coitus but also includes courtship and kissing, no matter the context
  - **DEFINITION:** Sexuality = the feelings, behaviors and identities associated with sex
    - Includes:
      - our gendered traits
      - sexual and romantic attractions and relationships
      - becoming (or not becoming) a parent
      - two-way relationship between our personal sexual identities and behaviors and social structures such as the law, religion medicine and politics

- Studying sexuality has practical benefits
  - Increase your factual knowledge
  - Improve your relationships
  - Become more accepting of sexual diversity
  - Assist in educating others
  - Think more critically/scientifically regarding sexuality

- Sexuality has changed over time
  - Influenced by evolution
    - We often look to apes when studying our own pasts, which shows sexual diversity even among similar species
      - Most sexual behavior among chimpanzees is between males and females and has the potential to lead to pregnancy
      - Most sexual behaviors among bonobos is between those of the same sex which is for conflict resolution and alliance formation, rather than reproduction
    - Competition has carried over across species
      - **DEFINITION:** coitus = penile-vaginal intercourse
    - Early humans’ sexual behavior was driven by instincts which required little conscious awareness
    - Evolution of humans’ knowledge of sexuality has led to things such as contraceptive practices (even if they were ineffective)
      - Pulling out
      - Black magic
      - Poisons
  - Societal affects
    - **DEFINITION:** partible paternity or “divisible fatherhood” = the belief that two or more men may be fathers of the same child
      - Most people know this to be a false belief, but researchers found exceptions in some indigenous tribes in South America
      - Because of this belief, men in these tribes to not guard their partners from other men as we do, but rather offer them to other men
      - This belief of multiple fatherhood entices men to give gifts to a child they believe is theirs or in exchange for sex, support the child throughout life, and, at the very least, refrain from killing the child
      - Around 10,000 years ago, the transition from hunter-gatherer to agriculture began to take place
• This transition led to the formation of cities which required governments and regulation of societies
  • Nudity was restricted, marriage was formalized, and nonmarital sex was discouraged
• Organized religion played a huge role in changes to sexuality with procreative heterosexual relationships being fostered and the forbidding of all nonmarital sex, homosexual sex, masturbation, contraception, abortion, and polygamy
  • DEFINITION: heterosexual = sexual attraction to, or behavior with, persons of the opposite sex
    • Even though heterosexual sex was the sex of choice, it was still policed
    • People were restricted to having sex only in certain positions and on certain days.
      • In contrast, the Kama Sutra of India describes innumerable ways for men to obtain/give sexual pleasure to women (as well as woman to woman and man to man)
  • DEFINITION: homosexual = sexual attraction to, or behavior with, persons of the same sex
  • DEFINITION: polygamy = having more than one spouse at the same time, as a social institution
  • DEFINITION: castration = removal of the testicles or testicles and penis
    • Performed as a punishment for criminals, prisoners of war or on pre-pubescent males to produce asexual male slaves
  • DEFINITION: eunuch = a man who has been castrated
  • DEFINITION: transgender (or trans) = identifying with the other sex or rejecting gender norms
• Marriage
  • Radical decline in birth rates beginning in the late 18th century
    • Number of children per woman has fallen from 7/8 to just 2
    • There are even couples who decide not to have children at all
  • In many traditional societies, marriage signified the transfer of a woman's ownership from her father to her husband
  • Women were expected to be virgins for marriage, but men were and are praised for "sowing his wild oats"
    • DEFINITION: double standard = the idea that acceptable behavior is different for men than for women
  • Divorce before the 20th century was uncommon and only permitted in cases of adultery
    • Now, nearly half of all marriages in the US end in divorce
  • DEFINITION: cohabitation = a live-in sexual relationship between individuals who are not married to each other
    • This is much more accepted both before marriage and even if they are never married
  • Interracial marriages are no longer sinful
• Social discourse
  • The 20th century saw an increase in people's willingness to talk about sex
  • Some hot topics about sex:
    • Ellis' unusual kinds of sexual expression
      • DEFINITION: perversion = an obsolete term for atypical sexual desire or behavior, viewed as a mental disorder
      • DEFINITION: neuroses = mental disorders such as depression that, in Freudian theory, are strategies for coping with repressed sexual conflicts
    • Freud's ruling that our lives are governed by an unconscious world of sexual drives and conflicts
    • Sanger's contraceptive campaign
    • Kinsey's reports
    • Mead's sexually uninhibited lifestyles in some Pacific Islanders
    • Masters and Johnson's physiological study of sexual responses in healthy people and those with sexual disorders
    • School sex education
• Social movements
• The women’s movement to control of their bodies, to be free of sexual coercion, and to seek pleasure in their relationships
• Gay liberation movement
• Advocating for of other facets of sexuality: bisexuality, asexuality, transgender identity, intersexuality, plural marriage, polyamory, sadomasochism, fetishes, pedophilia, pornography, and prostitution.
• Sexual revolution of the 1960s
• Sexuality can be studied with a wide variety of methods
  • Biomedical research focuses on the underlying mechanisms of sex
    • Hormone-based contraception, abortion, drug treatments for reproductive cancers, drug treatments for erectile disorder/premature ejaculation, methods to prevent/cure/treat sexually transmitted diseases, treatment of infertility, and safe pregnancy and childbirth
  • DEFINITION: sexual orientation = the direction of an individual’s sexual feelings; sexual attraction towards persons of the opposite sex, same sex, or both sexes
  • Studies show that brain activity changes during sex and these changes are different across genders and orientations
  • Psychology includes many subdisciplines, all of which approach sexuality in different ways
    • DEFINITION: psychology = the study of mental processes and behavior
    • DEFINITION: social psychology = the study of one’s relationship to others
      • These psychologists concern themselves with sexual attraction, relationships, violence between partners and anti-gay prejudice.
    • DEFINITION: feminism = the movement to secure equality for women; the study of social and psychological issues from women’s perspectives
      • Study at UCLA (Malamuth) about whether portrayals of sexual violence in the media and porn make men more accepting to such violence
        • Watched a movie where a woman is raped and falls in love with her rapist while a control group watched a movie with no sexual violence.
        • Filled out a sexual violence questionnaire a few days later
      • Male students who watched sexually violent movies expressed significantly more accepting attitudes toward the violence than the men in the control group
      • DEFINITION: control group = a group of subjects included in a study for comparison purposes
    • DEFINITION: cognitive psychology = the study of the information-processing systems of the mind
      • University of Haifa (Israel) study to find out if the stereotype of gay men being like women (and vice versa) is true.
        • Gay men scored higher on tests of empathy than straight men
        • Gay women scored lower on tests of empathy than straight women
    • DEFINITION: evolutionary psychology = the study of the influence of evolution on mental processes or behavior
      • Because reproduction is more demanding on women, genes evolved them to be more picky about their sexual partners
      • Male genes have evolved to cause engagement in competitive and risky sexual displays
      • Even crossing the street has become a sexual display, with men engaging in riskier behavior (crossing when red or when there are a lot of cars) when there are women around while women do not change their habits regardless of who is around
    • DEFINITION: cultural anthropology = the study of cultural variations across the human race
      • Sexual practices, beliefs and expectations change across different cultures
      • For example, the partible paternity of Amazonia or the “two-spirit” belief (people who incorporate both male and female aspects into themselves) of Native Americans
      • DEFINITION: gender = the collection of psychological traits that differ between males and females
  • Sociologists focus on the connection between sex and society
    • DEFINITION: sociology = the scientific study of society
    • Examine how sexual expression varies with age, race, origin, religious/political beliefs, place of residence, education level, etc.
These examinations are often carried out through sex surveys
- NHSLS – National Health and Social Life Survey
  - USA, early 1990s
- NSSAL – National Survey of Sexual Attitudes and Lifestyles
  - Britain, most recently in 2013
- NSSHB – National Survey of Sexual Health and Behavior
  - USA, University of Indiana, 2010
- GSS – General Social Survey
  - USA, long running, National Opinion Research Center

**DEFINITION:** script theory = the analysis of sexual and other behaviors as the enactment of socially instilled roles
- Society gives us “scripts” or ways of presenting ourselves to others as we deal with social interactions

**DEFINITION:** ethnography = the study of a cultural group, often by means of extended individual fieldwork
- Newmahr (SUNY Buffalo) joined a BDSM club in order to research them

The economic approach weighs costs and benefits
- People often weigh the costs or worth of sexual encounters even in cases that are not prostitution.
- Researchers often cross the boundaries between various disciplines or collaborate with researchers from other backgrounds

**DEFINITION:** sexology = the scientific study of sex and sexual disorders
- A variety of factors can make sex research difficult…
  - Obtaining appropriate subjects can be a challenge. It is easy to get a group of willing participants, but how representative can they be of the general citizenry
  - Phrasing of questions in an unbiased or leading way
  - Extrapolating from animal research to human subjects
  - Funding

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**Chapter 2: Women's Bodies Pages 20-59**

- A Woman's Vulva includes her Mons, Labia, Vaginal Opening, and Clitoris (External genitalia)
  - The vulva—the umbrella term used to describe the entire external genitalia
  - Mons—pad of fatty tissue covered by skin and pubic hair
    - Erotically sensitive and may help cushion the pubic area during sex
    - The hair vaporizes odors that arise in specialized sweat glands
      - The odors act as pheromones
      - May be a visual trigger for her partner, since it is the most visible portion of the vulva
      - Pubic hair removal is more common in younger women than older
  - Labia—two pairs of skin folds that extend down from the mons on either side of the vulva
    - Latin for lips
    - Has two parts:
      - Outer labia or labia majora
        - Padded with fatty tissue and are hairy on the surfaces nearest to the thighs
        - Often darker than other skin
        - Erotically sensitive, especially on the inner, hairless sides
      - Inner labia or labia minora
        - Two thin folds of hairless skin that lie between the two outer labia
        - For some women, they are only visible after parting, but some women’s inner labia protrude
        - Some women elongate them or even have the surgically removed
        - They meet at the clitoral hood
        - When aroused, the inner labia fill with blood, in a process called vasocongestion
  - The area encircled by the labia is called the vestibule
  - There is more to the clitoris than meets the eye
  - The clitoris—a complex organ, only a portion of which is visible
    - Located in the vestibule along with the urethral opening and the vaginal opening
The external portion is called the glans—a small but highly sensitive knob of tissue located at the front of the vestibule.

- Erectile tissue inside the glans consists of a single corpus spongiosum ("spongy body").

The shaft of the clitoris is around 1 inch long.

- Erectile tissue inside the shaft consists of two corpora cavernosa ("cavernous bodies").

Ointment-like secretions lubricate motion on the hood but, when they dry and mix with dead cells and bacteria, they create a pasty material called smegma.

- Smegma can be either removed or prevented by gently lifting the hood and rinsing with soap and warm water.

The two internal extensions of the clitoris (the crura) diverge backward and downward from the shaft, giving the whole clitoris a wishbone structure.

- They are around 3 inches long and partially enwrap the urethra.

Another pair of internal structures (the vestibular bulbs) are curved masses of erectile tissue consisting of the same spongy material as the spongiosum.

- Erection of these bulbs during arousal helps lengthen and stiffen the vagina.

The only function of the clitoris is to produce sexual arousal and pleasure.

- Its stimulation is the most reliable way for most women to experience orgasm.

- It is so sensitive that many women prefer diffuse or indirect stimulation rather than touching the clitoris itself.

- More erotically sensitive when erect, rather than in the flaccid state.

- Not all women even know that they have a clitoris.

- It was either missed or skipped in sex-ed or the woman did not have sex-ed courses.

- Piercing of the clitoris can be a form of self-expression in the United States.

- It is done for adornment, to enhance sexual stimulation, or even as a spiritual act.

**Box 2.1 Society, Values, and the Law "Female Genital Cutting"

- An estimated 80 to 120 million women worldwide have been subjected to some form of cutting of their external genitalia during childhood or puberty.

- The practice is prevalent in 29 countries, most of them in Africa.

- 80% of women in Djibouti, Egypt, Eritrea, Ethiopia, Gambia, Sierra Leone, Somalia, and Sudan are believed to be circumcised.

- Three types:
  - Sunnah—removal of the clitoral hood.
    - Roughly compared to male circumcision as we know it in the US.
  - Clitoridectomy—removal of the entire clitoral glans and shaft (sometimes the hood as well).
  - Infibulation—clitoridectomy and removal of the entire inner labia and the inner parts of the outer layers, with the outer labia being stitched together to cover the vestibule.

- Performed mostly by traditional practitioners who lack medical training with crude instruments and without anesthesia or sanitary conditions.

- This practice can cause problems with urination, menstruation, intercourse, childbirth, and fertility.

- Women who have not been circumcised may be considered ritually unclean or dangerous to the health of the man who has sex with her.

- In many cultures, a woman who has not undergone the procedure is not able to be married—which means that she is condemned to a life of poverty.

- There may be a second purpose to this procedure: reduction of female sexual activity, perhaps before or outside of marriage.

- Female circumcision has been illegal in the US since 1996.

- Although circumcision has been illegal in Egypt since 2007, this has not shown any decrease in the practice.

- The appearance of the vaginal opening is variable (still external genitalia).

  - The opening is also called the introitus.
    - Occupies the rear portion of the vestibule.
    - In newborn girls, it is covered by a membranous fold of skin, the hymen.
      - It has one or several openings that allow for menstrual flow and the insertion of tampons.
      - In rare cases, the hymen may be imperforate, or completely closing the vagina.
• This causes blockage of menstrual discharge and is treated surgically by creating an opening in the hymen.
• The hymen may tear or stretch during first intercourse, which may lead to some pain and bleeding.
• This phenomenon has led people to believe that the state of a woman’s hymen is a judge of whether or not she has engaged in coitus, but this is inaccurate.
• The hymen can break during any number of activities, including horseback riding.
• Some Middle Eastern countries require a relative of the bride to show bloodstained sheets after the consummation of the marriage to show that she was actually a virgin.
• This proves nothing as there are many reasons why a woman may or may not bleed during sex.
• The opening of the urethra is located between the vaginal opening and the clitoris.
• The main purpose of the urethra is to pass urine, but some women ejaculate from it during a sexual climax.
• The perineum is an erotically sensitive area between the vaginal opening and the anus.
• Intestinal bacteria may be spread rather easily from the anus to the vagina or urethra, so always wipe front to back, not back to front.
• Important structures that underlie the vulva.
• Pelvic floor (Kegel) muscles, especially the pubococcygeus muscle.
• The Vagina is the Outermost Portion of the Female Reproductive Tract:
• The reproductive tract serves the purpose of transport of the female’s eggs and the male’s sperm, as well as fertilization, pregnancy (uterus), and passage of the fetus during childbirth (birth canal).
• The vagina is a collapsed tube that runs about 3 to 4 inches upward and backward from the vaginal opening.
• Penetration of the vagina by the penis constitutes coitus or sexual intercourse.
• The vaginal wall is highly elastic and includes three layers:
  • a thin cellular lining (mucosa).
  • an intermediate muscular layer.
  • an outermost tough, elastic layer.
• The vagina is inhabited by large numbers of friendly bacteria that convert sugars to lactic acid.
  • This makes the vagina mildly acidic (pH 4.0 to 5.0), which helps prevent the growth of harmful bacterium (like overgrowth of candida albicans or a “yeast infection”).
• Douching—rinsing out the vagina with a stream of water or other liquid as a “cleansing” or deodorizing procedure.
  • Gynecologists discourage douching because the vagina is self-sufficient, she cleans herself.
  • All vaginas have discharge, it does not necessarily indicate an infection or a dirty vagina.
• The vagina undergoes changes during arousal.
  • Vascongestion causes the labia to swell and change color from pink to slightly purple.
  • Another response to arousal is lubrication, which serves two functions:
    • The lubricant has a near-neutral pH, which provides a more sperm-friendly environment, which favors sperm survival and transport.
    • Makes coitus and other stimulation around the vulva easier and more pleasurable for both partners.
• The G-spot is a controversial erogenous zone.
  • Only a minority of women say that they have a g-spot, but for those who do, it is an area of heightened sensitivity on the front wall of the vagina, around 2 inches from the vaginal entrance.
  • Paraurethral glands/Skene’s glands—located between the front wall of the vagina and the urethra.
  • They are believed to be equivalent to the male prostate gland.
  • There is a lot of controversy surrounding the g-spot: some believe it and some believe it is a myth.
• The anus can also be a sex organ.
• Box 2.2 Sexual Health “Genital Self-Examination” page 33.
• The uterus serves a double duty.
  • Uterus—the inward continuation of the female reproductive tract beyond the vagina.
  • In a non-pregnant woman, the uterus is about the size of a small upside-down pear.
  • The cervix—protrudes into the deep end of the vagina.
  • The os—a constricted opening that connects the vagina to a short canal that runs through the cervix.
The wall of the uterus has three layers:
- **Endometrium**—an inner lining
  - The structure changes across the menstrual cycle
  - Menstruation—the shedding of part of the endometrial lining and its discharge, along with some blood, through the cervix and vagina
- **Myometrium**—a muscular wall
  - These muscles are not under voluntary control
  - Perimetrium—a thin, outer covering that separates the uterus from the pelvic cavity
- **Cancer can affect the cervix or the endometrium**
  - Cervical cancer strikes around 13,000 American women annually and causes about 4,400 deaths
  - Death rate has dropped by about 75% since the 1950s, which can be attributed to regular pap tests
    - Pap tests are usually done as part of a pelvic examination
    - The American Cancer Society recommends that women have pap tests every three years between ages 21 and 30, every 5 years from ages 30 to 65, and no screening thereafter if previous tests have been negative
    - If the tests show precancerous cells, further testing such as a colposcopy, may be necessary
  - Endometrial or uterine cancer is three times more common than cervical cancer, but only causes 50% more deaths
    - With the exception of early-stage uterine cancers, treatment is usually removal of the uterus (hysterectomy)
    - Sometimes ovaries and oviducts must be removed as well, depending on how advanced the cancer is
    - Chemo, radiation or a combination of the two are often used to improve the chances of survival
- **Other uterine conditions**
  - Fibroids—noncancerous tumors of the smooth muscle that grow within or outside the uterus
    - 20 to 25% of women develop them, usually after age 30 but before menopause
    - They can be removed surgically or destroyed by blockage of the arteries that supply them blood
      - If the woman does not want to have children, a hysterectomy is also an option
  - Endometriosis—the growth of endometrial tissue at abnormal locations within the pelvic cavity
    - Most likely derived from cells in menstrual discharge that pass backward up the oviducts into the pelvic cavity, but other theories have also been proposed
    - Most common symptom is pain and it can cause infertility
    - There is no simple treatment: pain medications are helpful, as are oral contraceptives and, in severe cases, surgical removal of patches of the endometrial tissue
  - Prolapse—a downward sagging of the uterus into the vagina
    - Caused by weakening of the ligaments that support the uterus and the muscles of the pelvis floor
    - Most commonly seen in elderly women who have had at least one child
      - Obesity and smoking are also risk factors
    - May be treated by surgical techniques or insertion of a plastic ring to keep the uterus in place
    - Kegel exercises help to prevent uterine prolapse
- **Should hysterectomy be so common?**
  - Around 430,000 hysterectomies are performed in the US annually with 1 in 3 women having one by the age of 60
  - The associated cost exceeds 5 billion dollars annually and research shows that many hysterectomies are unneeded
- **The oviducts or fallopian tubes are the site of fertilization**
  - Each is about 4 inches long and forms a pathway between the uterus and the left or right ovary
  - Interior surface is covered by cilia—microscopic hair-like structures that wave in a coordinated fashion in the uterus
  - Fimbria—the fringe on the flared opening on the end of each oviduct
  - One sexually transmitted infection in the pelvic cavity or reproductive tract is called pelvic inflammatory disease (PID)
The ovaries (female gonads) produce ova and sex hormones

- Located on either side of the uterus
- Egg-shaped structures measuring about 1 to 1.5 inches long (about the same size as a man’s testicles)
- Each ovary contains a large number of follicles, each of which consists of an ovum surrounded by fluids and supporting cells
- Two distinct functions:
  - Release ova during ovulation
    - A newborn female has around a million undeveloped ova in each ovary, but this number declines throughout life
    - A pubescent woman has about 200,000 ova in each ovary
  - Production and secretion of sex hormones which regulate the monthly menstrual cycle
- Sex steroids produced by the ovaries
  - Three classes:
    - Estrogens, with estradiol being the main one
    - Progestins, with progesterone being the main one
    - Androgens, with testosterone being the main one
  - Both male and female gonads make all three classes of steroids, but in varying amounts
- Medical conditions that affect the ovaries
  - Ovarian cancer
    - Affects 22,000 American women annually
    - Risk factors include: old age, a family history, possession of cancer promoting genes, early onset of menstruation, late menopause, not having children, obesity, and prolonged hormone replacement therapy
    - The use of oral contraceptives for more than 5 years reduces the risk of ovarian cancer by around 60%
    - Only about one in two women survive for five years
  - Ovarian cysts
  - Polycystic ovary syndrome (PCOS)
- Box 2.3 Biology of Sex “The Feedback Loop that Controls Female Hormone Production”
  - The hypothalamus releases GnRH, which tells the anterior of the pituitary to release FSH and LH, which tells the ovaries to release estrogens, progestins, and androgens, which tell the uterus, breasts, and other organs to do things
- Menstruation is a biological process with cultural and practical aspects
  - Most women have cycles between 24 and 32 days
  - The menstrual period lasts somewhere between 2 and 6 days
  - Total loss is usually 1 to 2 fluid oz of blood, plus other fluids and tissues, amounting to a total volume of 2 to 7 fluid ounces
- Box 2.4 Controversies “Menstrual Synchrony: Reality or Myth?” page 41
  - The menstrual cycle has three phases:
    - Menstrual phase (days 1-5 in a typical 28-day cycle)
    - Preovulatory or follicular phase (days 6-14, with 14 being ovulation)
    - Postovulatory or luteal phase (days 15-28)
  - The menstrual cycle is driven by hormonal changes page 43
  - Does the menstrual cycle influence sexuality? Page 44
- Attitudes towards menstruation
  - Box 2.5 Society, Values, and Laws “Attitudes toward Menstruation”
- The use of pads, tampons, or cups during menstruation
  - Most women who menstruate use pads, panty liners, or tampons to absorb flow
    - 70% of women in the US and Canada use tampons
    - Tampons may cause TSS
  - Some women use menstrual cups, they hold the flow rather than absorbing it
- The cessation or irregularity of menstruation
  - Common reasons for amenorrhea or irregular periods: pregnancy, breast feeding, or menopause
• Other factors that can affect menstruation are: hormonal contraceptives, drugs, stress, loss of weight, and medical conditions
• Primary amenorrhea—a woman never began her period at puberty

• Menstrual Problems
  • Cramps
  • Dysmenorrhea—pain that is severe enough to limit a woman's activities
    • Primary dysmenorrhea—disabling menstrual pain that is not associated with any diagnosable pelvic condition
      • Begins at menarche and is most common in young women who have not had children
      • Can be alleviates with heat, calcium supplements, plentiful fluid intake, or nonsteroidal anti-inflammatory drugs such as advil
      • Exercise and high-fiber diets as well as oral contraceptives are also said to help
    • Secondary dysmenorrhea—menstrual pain caused by a pelvic disorder
      • Usually does not begin at menarche, but at some time in her reproductive life
      • Possible causes are: endometriosis, PID, fibroids, and ovarian cysts
      • IUDs and even tampons can sometimes cause menstrual pains
      • This can be alleviated in the same ways as primary, but the underlying condition should be corrected

• Premenstrual Syndrome (PMS) and Premenstrual Dysphoric Disorder (PMDD)
  • Six core symptoms:
    • Anxiety/tension
    • Mood swings
    • Aches
    • Altered appetite or food cravings
    • Cramps
    • Decreased interest in activities
  • Other symptoms that may occur include: breast tenderness, diarrhea or constipation, and “bloating”
  • The majority of women experience at least one of these symptoms, but only 3 to 10% are severely affected enough to warrant a diagnosis
  • Treatments of mild PMS include: regular exercise, quitting smoking, reducing intake of alcohol, getting sufficient sleep, and managing stress

• The breasts have both erotic and reproductive significance
  • The mammary glands are considered secondary sexual characteristics
  • Each breast has about 15 to 20 lobes that are separated from one another by fibrous and fatty tissue
  • Functional units of the breast are microscopic sacs called alveoli, which produce milk

• Breast cancer mortality can be reduced
  • 230,000 women and 2,000 men are diagnosed with invasive breast cancer in the US every year, with 40,000 women and 400 men dying of the disease
  • 1 in 8 American women will be diagnosed in her lifetime
  • Treatment is removal of the breasts (mastectomy)
  • Factors that affect the risk of breast cancer (and stats pages 52 and 53)
    • Genes
    • Age
    • Reproductive History
    • Alcohol
    • Obesity
    • Breast size
    • Breast density
    • Exercise
    • Medical history
    • Hormones
  • Early detection is important
    • Breast self-exams (Box 2.5 page 55)
    • Mammography
  • Treatment depends on the diagnostic findings and the woman’s choice
• The majority of women diagnosed with invasive breast cancer undergo some kind of surgical treatment (lumpectomy, mastectomy, radical mastectomy, double mastectomy)
• Other treatments include hormone-blocking therapy drugs and immunotherapy drugs
• A reconstructive breast surgery with implants may be performed after the original treatment
• Most women with breast cancer return to an active sex life after their treatment
• Sexuality is affected in the following ways:
  • Grief and fear triggered by a cancer diagnosis
  • Side effects of cancer treatment can be exhausting
  • Some treatments have hormonal or other effects that decrease physiological arousal or interest in sex
  • Fear of no longer being attractive to their current partners, or to potential future partners

Chapter 3: Men's Bodies Pages 60-85
The Male External Genitalia Are the Penis and Scrotum
• Penis and scrotum are visible from the outside
• Testicles/balls are indirectly visible as twin bulges inside the scrotum, but they are technically part of the internal male reproductive system
• Men do not have a mons but they do have a similar distribution of pubic hair
• The penis combines erotic, reproductive, and urinary functions
  • Developmentally the penis is equivalent to the clitoris, but functionally it corresponds to the clitoris, urethra, and vagina all rolled into one
• An uncircumcised penis has three visible portions:
  • Foreskin/prepuce
    • A loose tubular fold of skin that partially or completely covers the glans
    • Male circumcision is the removal of the foreskin, or part of it, exposing part, or all of the glans
      ▪ It can be performed at any age, but, in the United States, most are done soon after birth
      ▪ In children, the 5-10 minute procedure is facilitated by a clamp or other device such as the PlastiBell
      ▪ In adults, stitches are necessary and the man must refrain from sex, including masturbation, for 4 to 6 weeks. The PrePex has been approved for adult circumcisions by the WHO
  • Shaft
    • Contains three erectile structures:
      ▪ Two corpora cavernosa

BOX 3.1 Controversies "Male Circumcision" Page 64
• Benefits:
  • Reduction of UTIs
  • Partial protection from STIs, including those that cause AIDS, herpes, and cervical and anal cancer
  • 15% lower risk of prostate cancer
  • Facilitates hygiene (smegma build up in uncircumcised men)
• Risks:
  • Hemorrhage
  • Infection
  • Damage to the penis (rare)
• No recent deaths have been reported in the U.S.
• In 2012, the American Academy of Pediatrics (AAP) declared "that the health benefits of newborn male circumcision outweigh the risks and that the procedure’s benefits justify access to this procedure for families who choose it"
• The genital equity argument carries some weight: it states that opponents of female genital cutting should also oppose male genital cutting
  • Worldwide, 30% of men are circumcised
  • Most popular among whites, less popular among African-Americans, and least popular among Hispanics and Asian Americans
• Lie side by side and account for the bulk of the penis’s erectile capacity
• These diverge, forming two crura similar to those of a woman’s clitoris
  ▪ A single corpus spongiosum
  ▪ Runs along the middle of the undersurface of the penis
  ▪ Extends from the shaft into the glans, where it balloons out and fills the entire volume of the glans
  ▪ At the inner end of the root, this expands into a rounded mass of erectile tissue known as the penile bulb
  ▪ These extend backward through the body under the pubic bone, forming the root of the penis, which is about 2 inches long
• The urethra discharges urine from the bladder and semen from the reproductive glands
• Also contains nerves and blood vessels that play a role in sexual arousal and erection
• The skin of the penis is hairless and only loosely attached to the underlying tissue
  ▪ Head/Glans
  ▪ The rim, or corona, encircles the penis
    ▪ On the underside, the corona comes closer to the tip of the glans
  ▪ On the underside, there is a loose strip of skin called the frenulum
  ▪ Stimulation of these two areas is usually the most sexually arousing
• The size of the penis, flaccid or erect, varies from man to man and rarely have any significant effect on sexual performance
  ▪ Box 3.2 Research Highlights "How Big Should a Penis Be? Page 67
    ▪ Indiana University study on Penis sizes
      ▪ Penile length (measured from the underside) ranged from 1.6 inches to 10.2 inches and averaged 5.6 inches
      ▪ Penile circumference ranged from 1.2 inches to 7.5 inches and averages 4.8 inches
      ▪ These measurements did not differ significantly with age, race, or sexual orientation
    ▪ California State University online study found that only 55% of heterosexual men are satisfied with their penis but 84% of women were satisfied with the size of their partner’s penis with only 14% wanting it to be larger
  ▪ Surgical augmentation of the penis
    ▪ Cutting the suspensory ligament followed by many weeks of traction (hanging weights from the penis)
    ▪ This procedure extends the flaccid penis by 0.5 to 1.0 inches and does not affect the erect penis
    ▪ More complex procedures include tissue grafts
    ▪ Self-help methods such as jelqing (repeated squeezing of the penis from the base to the corona) show no evidence of success and may actually damage the penis
    ▪ Thickness can be increased by fat injections
    ▪ Incidences of complications from penile augmentations are very high and the American Urological Association states that it has not been shown to be safe or efficacious
  ▪ Piercings
    ▪ “Prince Albert” enters the glans through or near the frenulum and exits via the urethra
    ▪ May cause scarring, damage to erectile tissue, nerve damage, interference with urination, and serious infections such as hepatitis and HIV
  ▪ Medical Problems Concerning the Penis
    ▪ Balanitis-- inflammation of the glans
      ▪ Caused by infection and/or poor hygiene
      ▪ Common in uncircumcised men
      ▪ Treatment involves regular cleansing and antibiotics as necessary
    ▪ Phimosis-- the inability to retract the foreskin far enough to expose the glans
      ▪ Normal is male babies and may persist into the teen years
      ▪ There is no need to treat it unless it affects the flow of urine
      ▪ It may develop as a new condition in adults, in which case surgical treatment may be required
    ▪ Paraphimosis-- entrapment of a retracted foreskin behind the corona of the glans
      ▪ Can occur as a result of trying to retract a phimotic foreskin
      ▪ It is an emergency condition because it can lead to tissue death in the glans
• Can usually be reversed without circumcision, but it is recommended to avoid reoccurrence
  ○ Peyronie's disease-- an unnatural curvature of the erect penis
  • Caused by scar formation in the corpora cavernosa (possibly as a consequence to trauma)
  • Many men have natural curvature in their penis
  • It can cause pain or even prevent penetrative sex
  • Surgical treatments are available
  ○ Penile Cancer is rare: striking about 1200 and killing 300 American men per year
    • When detected early, penile cancer can be treated with fairly minor surgical procedures
    • HPV can predispose a man to penile cancer
    • If the cancer has invaded the deep structures of the penis, part or all of the organ may need to be amputated
    • Men who have had their penis removed develop the ability to experience orgasm through stimulation of nearby areas of skin
  ○ Multiple penises-- Diphallia
    • Box 3.3 Biology of Sex "Diphallia" Page 68
      ▪ Occurs once in every 5 million male births
      ▪ Of the 30 or so known individuals to have it, many have other congenital malformations such as double bladders or a urethra that opens in the wrong place
      ▪ Even more rare is both penises of equal length and fully functional for urination and sex, without accompanying malformation
        • "DoubleDickDude" on Reddit's AMA-- a bisexual man who has had sex with both men and women, sometimes in three-ways that involve simultaneous oral from both partners
      ▪ A corresponding issue can occur in women in the septum (tissue wall) that divides it into a left and right passageway, both of which lead to a separate uterus
        • May require surgery, but it is usually compatible with pregnancy

Penile Erection Involves Nerves, Blood, and Chemistry
• Erection can occur in response to local stimulation of the genitals or in response to higher-level inputs (such as erotic thoughts or sensations)
• The penis and clitoris both contain sensory nerve endings called genital end-bulbs
  ○ The highest density of these nerve endings occurs around the corona and in the frenulum
• The genital skin, anus, and nipples are erogenous zones in both sexes
  ○ Nipple stimulation activated two zones in the brain, the one devoted to the nipples themselves and the one devoted to the genitals
  ○ Local stimulation of the genitals triggers a spinal reflex, which can cause erection even after a spinal injury that completely separates the cord from the brain
• Nerves that regulate penile erection are part of the autonomic nervous system and are not under voluntary control-- a man cannot develop or lose an erection by an act of will
• Erection is filling of the penis with blood
  ○ The tissue within the corpora cavernosa contains numerous collapsible spaces called sinusoids, which are part of the circulatory system
  ○ When flaccid, the arteries in the penis are in a constricted state, so little blood can flow into it
  ○ Erection occurs when neural signals cause the arteries to expand and the veins to contract, which expands the corpora
  ○ Vasocongestion is the further swelling of the penis, especially the glans, when approaching climax
  ○ Nitric oxide is a neurotransmitter involved in triggering an erection
    • Viagra and other erection-producing drugs do so by increasing the level of this neurotransmitter
  ○ When a complete erection occurs, no additional blood may enter
  ○ An erection that wont go down (priapism, named for the Greco-Roman god of fertility, who was always portrayed with an erection) starves the tissue of oxygen and can cause damage if longer than a few hours
  ○ The spongiosum is still squishy during erection, which keeps the urethra from becoming compressed and inhibiting ejaculation
• Muscles are also involved in erection
  ○ Pelvic floor muscles, including the pubococcygeus muscle