

Women's Health Issues

Section 7

Mastitis

- ▶ Very common during nursing
 - Usually due to staphylococcus
- ▶ S & S
 - Usually unilateral redness, tenderness & hardening
 - Severe inflammatory changes in a non-lactating breast is often inflammatory carcinoma
- ▶ Diagnosis
 - Confirmed by history
 - Blood tests and biopsy for more severe cases
- ▶ Treatment
 - Dicloxacillin or cephalosporin 7-10 days
 - If not treated promptly, may lead to abscess, which requires drainage and IV

Breast dermatitis



Mastitis



Pagets' disease



Inflammatory breast cancer



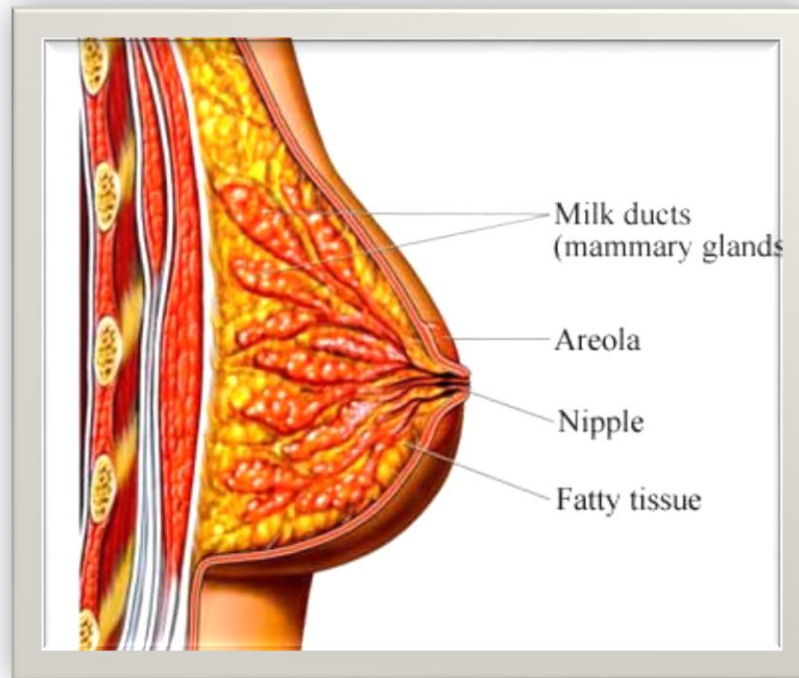


Nipple Discharges

- ▶ Clear or white – may be due to clothing irritation, manual stimulation, foreplay
- ▶ Milky - galactorrhea
- ▶ Green – fibrous growth
- ▶ Red-tinged or bloody – tumor
- ▶ Foul-smelling – breast infection
- ▶ Unilateral nipple discharge – benign or cancerous tumor or infection
- ▶ Bilateral nipple discharge – suggests a systemic problem such as hormonal tumor or drugs
- ▶ Medication side effect
 - Antidepressants, antihypertensives, oral contraceptives, hormone replacement drugs

Galactorrhea

- ▶ The production of breast milk in non-lactating
- ▶ Usually due to pituitary tumor
 - May also cause amenorrhea and decreased libido



Fibrocystic Breasts

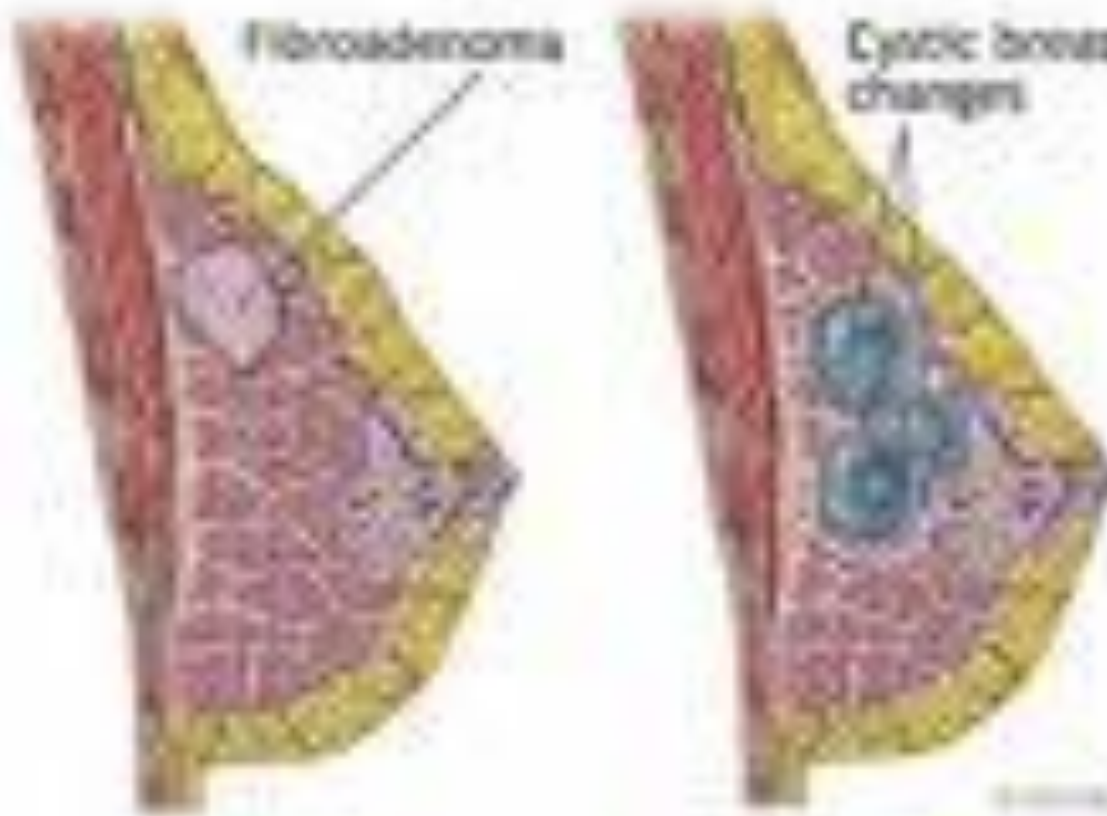
- ▶ Fibrocystic breast condition is lumpiness in one or both breasts
- ▶ Breast tenderness or pain are usually present in fibrocystic breast condition
- ▶ Fibrocystic breast condition is a very common and benign condition
- ▶ Normal hormonal variation during the menstrual cycle is the primary contributing factor to fibrocystic breast condition
- ▶ Fibrocystic breast condition is a cumulative process that mainly affects women 30-50

Fibrocystic Disease

- ▶ **The lumps in fibrocystic breast condition can mimic and mask breast cancer**
- ▶ S & S
 - Multiple tender and painful lumps, tend to be fluid filled
 - Changes in size as the fluids increase or reabsorb
- ▶ Diagnosis
 - Not an increased risk of breast cancer
 - Diagnosis must be differentiated due to anxiety
 - Firm persistent nodules should biopsy and mammo
- ▶ Treatment
 - Danazol is rarely given for severe pain
 - Side effects – acne, hirsutism, fluid retention
 - Stop coffee, tea and chocolate

Cystic breast vs. fibroadenoma

Common benign causes of breast lumps



Fibroid Scan



Fibroadenomas

- ▶ **Benign breast tumors**
 - Significant anxieties for patients
- ▶ **Diagnosis**
 - Firm, rubbery masses in young women 20-30
 - Movable mass, not fixed
 - Seen more in African American women
- ▶ **Treatment**
 - US, needle biopsy and aspiration
 - Excisional biopsy of suspicious lesions

Breast Biopsy



Needle Aspiration



Surgical Biopsy

Breast Cancer

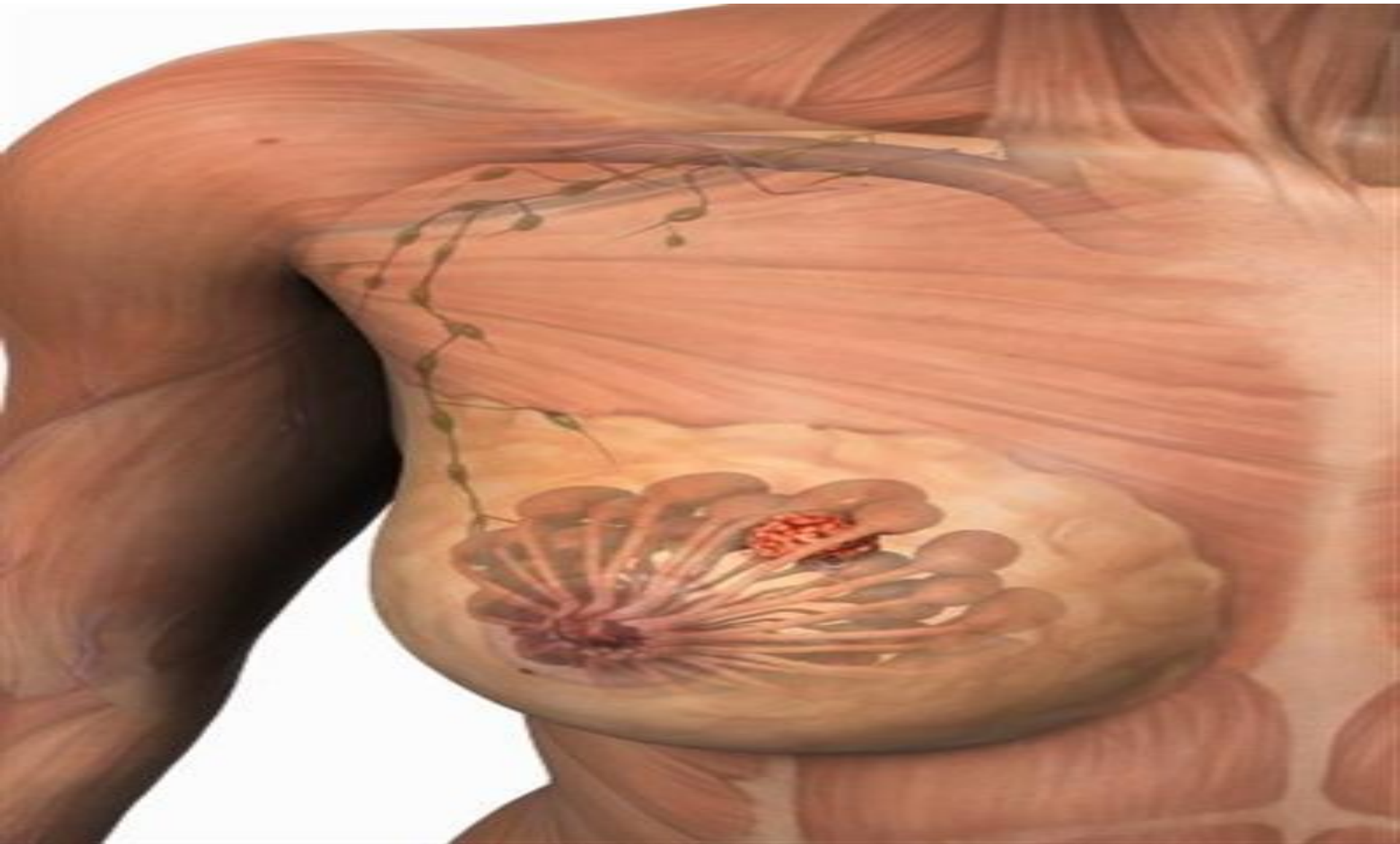
► Incidence

- 211,000 new case per year and 40,000 deaths
- 56,000 diagnosed as DCIS – ductal carcinoma in situ
- 1 in 8 women will develop at one time in their life

► Prognosis

- Cure rate 75-90% if cancer is localized to the breast without metastases
- 90% survival rate with small mammo detected and no lymph node involvement
- 45% five year survival if in axillary nodes
 - 25% to ten year survival
- 5-10% five year survival with distant metastasis
 - 2% ten year survival

Breast Cancer



Breast Cancer Risk Factors

- ▶ Age - chances increase with age
 - 80 percent older than age 50
 - In 30s, 1 in 233 chance of developing breast cancer
 - By age 85, chance is 1 in 8
- ▶ Most significant is family history
- ▶ Genetic predisposition
- ▶ Radiation exposure
- ▶ Early menarche and late menopause
- ▶ First pregnancy after 30 or never pregnant
- ▶ Excess weight, excess alcohol, smoking
- ▶ Birth control pills
- ▶ Hormone replacement therapy
- ▶ Environmental factors

Breast Cancer Diagnosis

- ▶ Should have breast exam every two years between 20-40 and yearly over 40
- ▶ Yearly mammography over 40
- ▶ On palpation – present as single, firm hard mass, usually non tender with poor margins
 - Painless lump 70% of time
 - 90% of time – patient self discovered
 - 60% in upper outer breast quadrant
- ▶ On mammography – appears as clustered lesions

Staging Breast Cancer

Tumor Size (Spread)	Lymph Node Involvement	Metastasis
I <2 cm	No	No
II 2-5 cm	No or in same side of breast	No
III >5 cm	Yes, on same side of breast	No
IV Not applicable	Not applicable	Yes

Breast Cancer Cell



Breast Cancer Treatment

- ▶ For Stage I & II
 - Modified radical mastectomy alone or
 - Lumpectomy and axillary dissection
 - Post surgical radiation and chemotherapy
 - Breast conservation therapy with radiation presents with 75% cure rate
- ▶ National Cancer Institute criteria handout
- ▶ Complications of surgery
 - Post surgical complications
 - Up to 30% have arm edema

Mastectomy



PMS

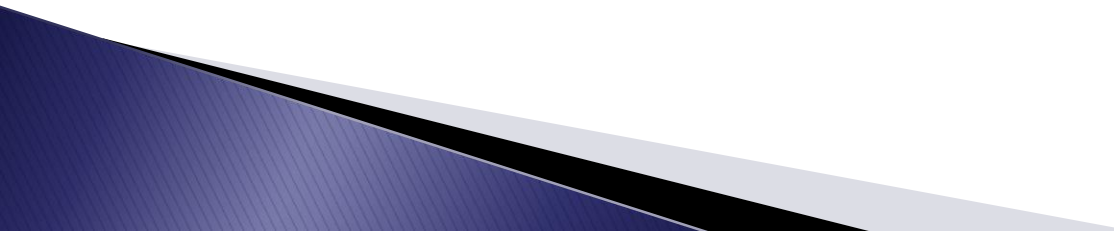


**BE AFRAID!
BE VERY AFRAID!**



Even the king of the jungle knows who is boss !

PMS Pathophysiology

- Recurrent, cyclical set of physical and behavioral symptoms occurring 7-14 days before the cycle
 - Troublesome enough to interfere with daily life
 - Occurs up to 40% of women
 - Most severe cases 5% of 25-35 year olds
- 

Proposed Etiologies of PMS

➤ Hormonal

- Estrogen deficiency or excess
- Progesterone deficiency or excess
- Prolactin excess
- Beta-endorphin deficiency
- Altered estrogen : progesterone ratio

➤ Fluids and Electrolytes

- Vasopressin excess
- Aldosterone excess
- Sodium : Potassium ratio Na : K

More Causes of PMS

- **Neurotransmitters**
 - Serotonin deficiency
 - Cortisol excess
 - Adrenal insufficiency
 - Thyroid abnormalities
 - Hypoglycemia or decreased glucose tolerance
- **Prostaglandins**
 - Excess or deficiency
 - Essential fatty acid deficiencies
- **Heredity**

Still More Causes of PMS

- Vitamins and Minerals
 - Pyridoxine deficiency
 - Vitamin A and E deficiency
 - Magnesium deficiency
 - Calcium deficiency or excess
 - Potassium deficiency
 - Zinc deficiency
 - Dopamine deficiency
 - Trace mineral deficiency

And the list goes on ...

- Psychological factors
 - Beliefs around menses
 - Coping skills
 - Self esteem
 - Psychiatric problems

- Social Factors
 - Stress and social network
 - Marital and sexual relationships (current & former)
 - Psychosexual experiences
 - Attitudes of PMS

The Etiology Remains a Mystery

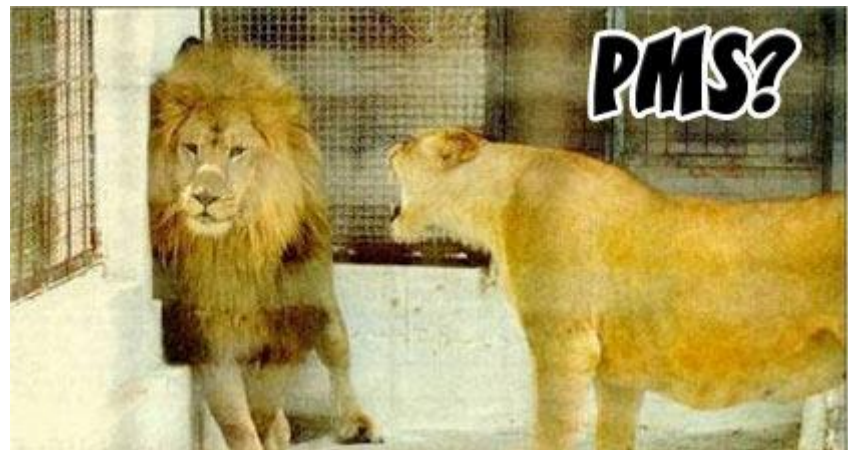


Most women would agree that a big cause of PMS is...

Putting up with Men's Sh_ _

Symptoms of PMS

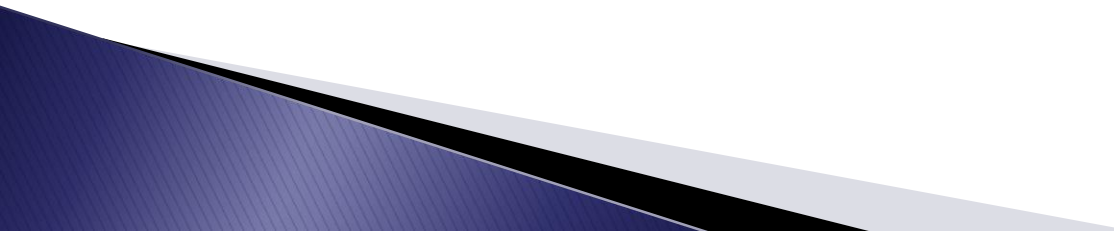
- Nervousness, fatigue, mood swings, tender breasts
- Back pain, diarrhea, clumsiness, social isolation
- Anxiety, lethargy, water retention, headache, acne
- Decreased libido, dizziness, insomnia, irritability
- Depression, abdominal bloating, appetite change
- Sugar cravings, constipation, low self esteem, joint pain



Classifications of PMS

- PMS – A Anxiety
 - Caused by increased estrogen
- PMS – C Carbohydrate craving
 - Caused by increased binding of insulin
- PMS – D Depression
 - Caused by decreased estrogen
- PMS – H Hyper hydration
 - Caused by increased aldosterone

Consider other medical conditions

- It is important to address any underlying medical conditions that may be masked by PMS.
 - One study found that 75% of women receiving care for PMS actually had another diagnosis that accounted for many of the major symptoms of depression and mood swings.
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PMS Treatment

- ▶ Daily journaling for 3 months
- ▶ Empathetic support
- ▶ Exercise and conditioning training
- ▶ Salt reduction and diuretics
- ▶ Stress reduction program
- ▶ Calcium supplements
- ▶ SSRI – serotonin reuptake inhibitors
 - Prozac
- ▶ NSAIDs

Dysmenorrhea

- Most common of all gynecologic complaints
 - Affects over 50% of women
- The leading cause of absenteeism
- Characterized by lower abdominal cramps and pain from mild to debilitating
- Often associated with nausea, vomiting, diarrhea, headaches, vertigo, back pain

Two Types of Dysmenorrhea

➤ **Primary Dysmenorrhea**

- Pain without pelvic pathology
- Usually starts before age of 20
- With nausea 50% of time
- With vomiting 25% of time
- With stool frequency 35% of time
- Pain usually starts a few hours before menses
- Usually lasts a few hours to a few days

Two Types of Dysmenorrhea

➤ **Secondary Dysmenorrhea**

- Pain with pelvic pathology and lesions
- Endometriosis, P.I.D., Surgical Adhesions
- Also caused by I.U.D.
- Usually lateralized to one side
- Usually is later in life
- Begins a few days before menses
- Lasts several days

Dysmenorrhea Etiology

- Like all chronic pain problems, the etiology is often multi-factoral.
- On the biochemical level, Prostaglandins (PGS) account for most of the symptoms.
- Stimulation of the uterus by estrogen and progesterone increases the endometrial stores of Arachidonic Acid, which is the main PGS causing pain and symptoms.

Arachidonic Acid

- Has been found to cause significant symptoms, especially in teenagers
- Dietary Considerations
 - Beef - red meats
 - Chicken and turkey
 - Dairy products
 - Whole milk

Dysmenorrhea

▶ Diagnosis

- Diagnosis of primary is self-apparent
- Diagnosis of secondary with ultrasound for fibroids, CT for endometriosis, cervical culture for PID

▶ Treatment

- Primary – NSAIDs and oral contraceptives
- Secondary – treat the primary cause
 - Remove IUD, remove fibroids

Abnormal Bleeding

- ▶ Normal – 2-3 ounces per cycle (4 days)
- ▶ Amenorrhea – absence
 - Primary – period never begins
 - Pituitary, genetic, thyroid
 - Secondary – period began normally then stopped
 - Malnutrition, tumors, endocrine, anorexia nervosa, PTSD, excessive exercise
- ▶ Hypomenorrhagia – light or scanty periods
- ▶ Polymenorrhea - frequent periods
 - Caused by oral contraceptives, endocrine, thyroid, pituitary, diabetes
 - Diagnosis with US and laparoscopy

- ▶ Menorrhagia – long and heavy periods
 - Caused by uterine fibroids, oral contraceptives, IUD, thyroid disorders
 - S & S
 - Soaking through pads or tampons every hour or two
 - Needing double protection on frequent basis
 - Prolonged heavy periods more than one week
 - Passing large clots
 - Constant cramping
 - Possible anemia symptoms
- ▶ Metrorrhagia
 - Dysfunctional irregular uterine bleeding
 - Commonly caused by fibroids

Infections of Vulva & Vagina

- ▶ Most common gynecological problem
- ▶ S & S
 - Burning, itching and discharge
- ▶ Diagnosis
 - History of allergies, use of contraceptives, tampons, douches, recent sexual activity
 - Presence of vaginal pain, burning, itching and profuse odorous discharge
 - Culture of discharge

▶ **Vulvovaginal candidiasis**

- Predisposing factors – pregnancy, diabetes, heat, moisture, occlusive clothing, use of antibiotics and steroids
- White, curd-like discharge is common
- Treat with clotrimazole or miconazole cream or suppositories 1-3 days

▶ **Trichomonas vaginalis**

- Parasitic infection transmitted by intercourse
- Intense itching, frothy yellow green discharge
- Treat both partners with Flagyl – 7 day

▶ **Bacterial vaginosis**

- Non-sexually transmitted polymicrobial disease
- Gray discharge, fishy odor and very acidic pH
- Common in older women
- Treat with metranidazole 7 days and clindamycin cream

▶ **HPV – human papilloma virus**

- Sexually transmitted genital warts
- Greatly increases the risk of later developing cervical o uterine cancer
 - Also increases the risk of anal cancer
- Treat with Podophyllum resin 25% or trichloroacetic acid or liquid nitrogen

▶ **Bartholin's gland abscess**

- Glands are prone to infection with heat, moisture and tight underclothes
- Can become very tender and swollen and pus filled
- Diagnosis – culture pus
- Treatment with incision and drainage of abscess
 - Warm soaks and sitz baths
 - Oral antibiotics – Keflex or cephalosporin

Diseases of the Uterus

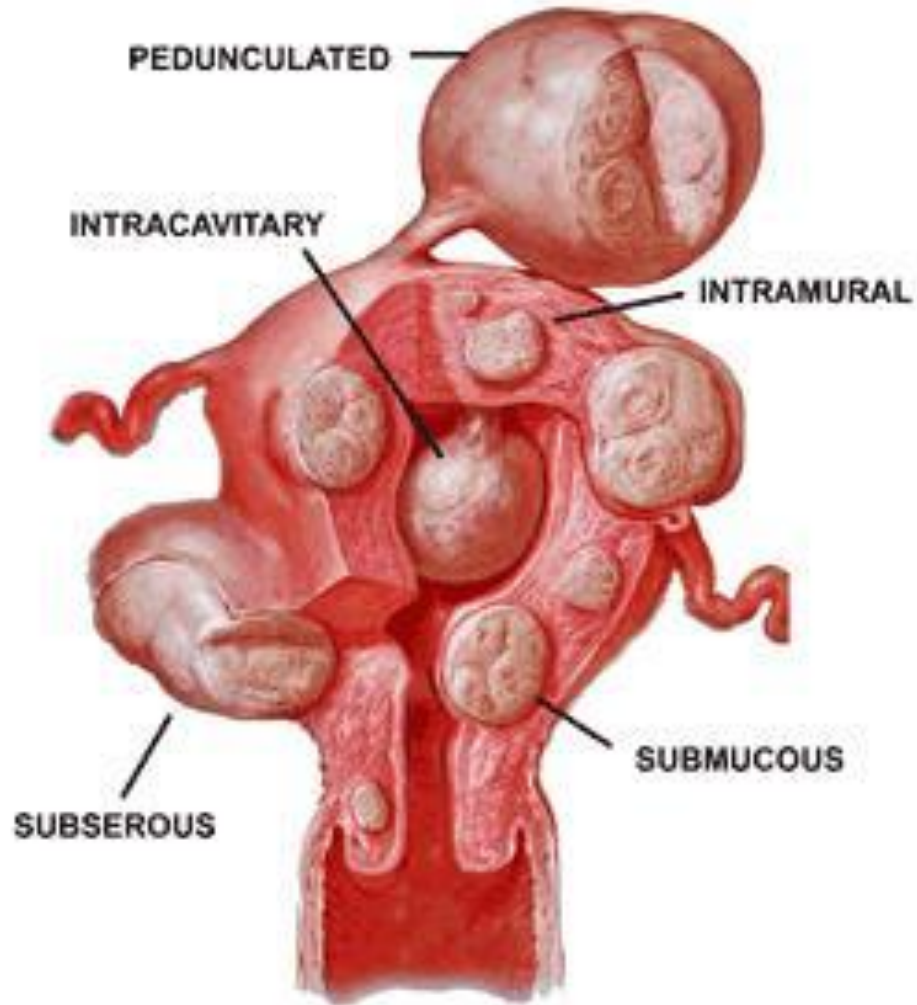
▶ Adenomyosis

- Non-cancerous overgrowth of endometrial tissue
- Mainly in 35-50 nulliparous women
- S & S
 - Heavy, painful periods (menorrhagia) and bleeding between periods (metrorrhagia)
 - Uterus enlarges 2-3 times normal
 - Dyspareunia
- Diagnosis with MRI and endometrial biopsy
- Treatment – no effective western tx, sometimes OCP helps reduce bleeding and swelling

➤ Uterine Fibroids

- Noncancerous tumors of smooth muscle cells and fibrous tissue
- Also called leiomyomas, fibromas, fibromyomas
- Starts off microscopic and grows over the years
- The most common pelvic tumor
- Incidence
 - 25% to 50% of women from 25-45
 - Up to $\frac{1}{4}$ in white women and $\frac{1}{2}$ in black women
 - Autopsy results consistent with 75%

Uterine Fibroids



- Fibroid Symptoms - Most not bothered by them
- Symptoms fall into two categories
 - Bleeding – can be heavy if the fibroids are located submucosally. Usually causes anemia which causes fatigue.
 - Pelvic pain
- Treatment
 - Oral contraceptives
 - GnRH - Gonadotropin Releasing Hormone Agonist
 - Surgery
 - 80-90% success
 - Regrowth up to 50%

▶ Endometriosis

- Noncancerous condition with endometrial tissue growth outside the uterus – unknown cause
- 10-15% incidence in the childbearing years
- Tissue that grow outside uterus is called implants
 - Grow on the ovaries, fallopian tubes, outer wall of the uterus, intestines, or other organs in the belly
- S & S – pelvic pain, heavy flow, dyspareunia, rectal bleeding, infertility
- Diagnosis with US, MRI, pelvic exam
- Treatment best with TCM
 - Western care of NSAID, oral contraceptives, hormone therapy and laparoscopy scar tissue

Female Genital Cancers

▶ **Cancer of the vulva**

- Usually after 50 with history of genital warts
- May have a history of prolonged vulvar irritation and is obesity and diabetes
- S & S – Vulva pain and tenderness with visible growth and ulceration around labia. May also have tender nodes, weakness, bleeding and weight loss
- Diagnosis – biopsy
- Treatment – surgery with wide excision and node dissection

▶ **Cancer of the vagina**

- Very uncommon – less than 1% of GYN cancers
- Squamous cell cancers over 60 years old with exposure to HPV
- S & S – post-coital bleeding, vaginal ulcers
- Treatment – vaginal removal and node dissection followed by vaginal reconstruction

▶ **Cancer of the fallopian tubes**

- Less than 1% of female genital cancers
- Usually noted on laparoscopy for another condition
- Treatment – TAH, BSO, LND
 - Total abdominal hysterectomy, bilateral salpingo-oophorectomy, lymph node dissection

▶ **Cervical cancer - CaCX**

- Most common female cancer under 55
- Usually caused by HPV
- Between 1947 and 1971 pregnant women were given DES to stabilize them with bleeding and diabetes in pregnancy
 - Daughters of moms who took this drug are high risk
 - Currently 38 to 62 years old
 - S & S
 - Metrorrhagia, post-coital spotting, cervical ulcerations
 - Staging
 - Stage 0 – carcinoma in situ
 - Stage I – invasion up to 5 mm depth
 - Stage II, III – invasion into pelvis
 - Stage IV – invasion into bladder, rectum or distant metastases

▶ Cervical cancer

- Treatment – total hysterectomy, radical hysterectomy, radiation
- Prognosis
 - 5-year survival – 68% white women, 55% black women
 - 99% 5-year survival for stage 0

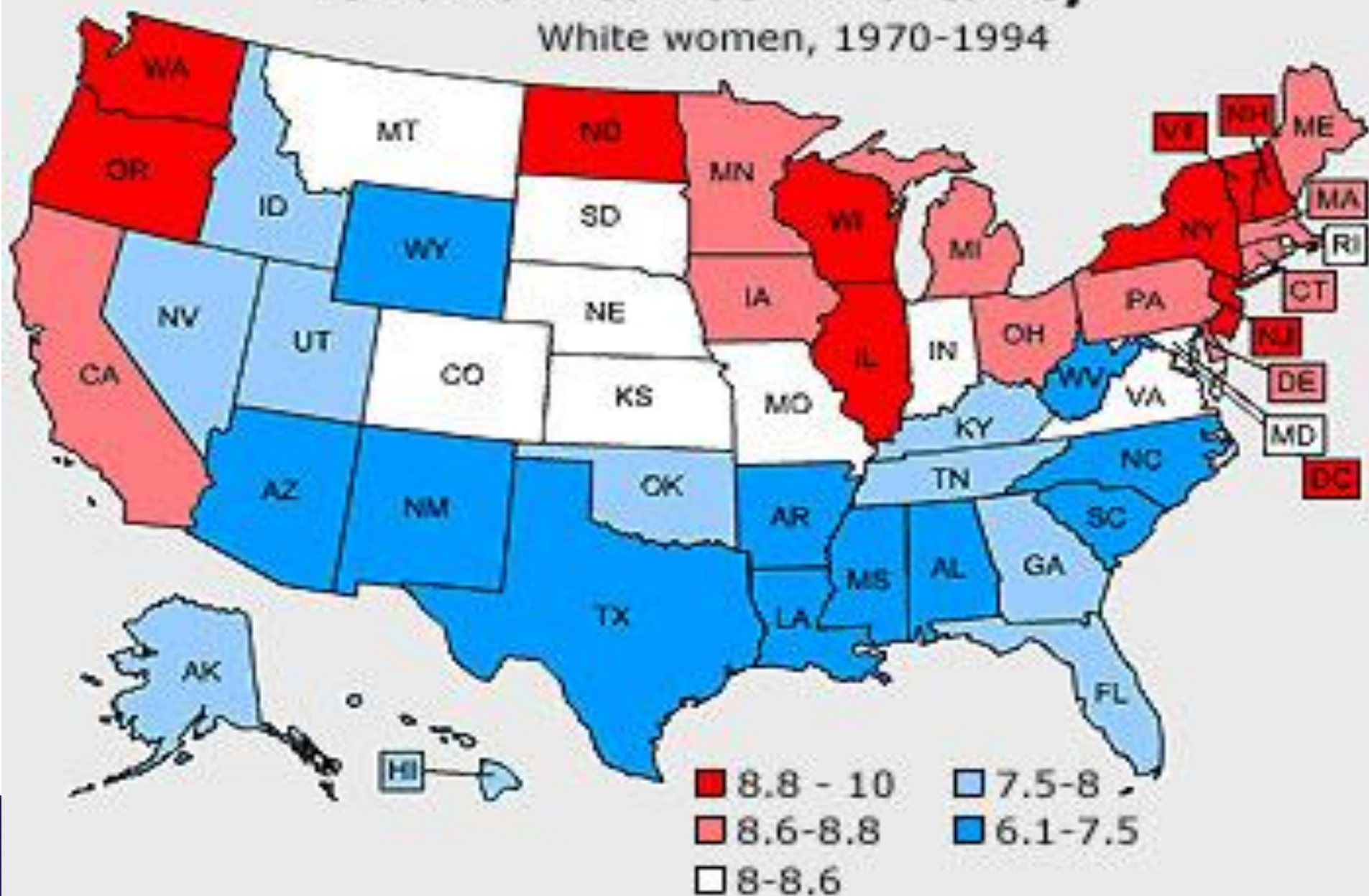


▶ Ovarian cancer

- Most fatal of all female reproductive tract cancers
- S & S - Very little in the early stages as it grows silently, usually not found until late stages which presents with weight loss, abdominal pain, weakness
- Diagnosis
 - 80% of patients have elevated serum CA 125, US, MRI, CT. pelvic exam
- Prognosis
 - 75 % of cases have advanced metastasis when diagnosed
 - 17% 5-year survival if metastasized, 89% survival if caught early and surgery performed
- Treatment
 - TAH, BSO, LND, chemotherapy post-op if spread

Ovarian cancer mortality

White women, 1970-1994

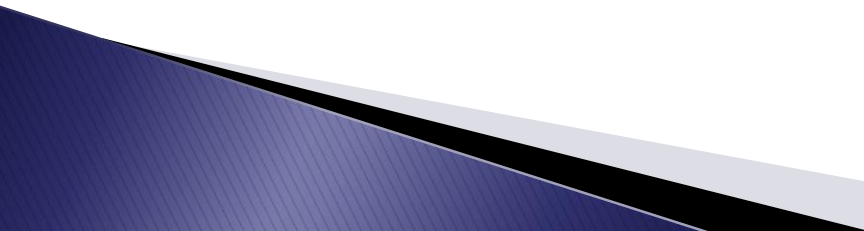


Source: National Cancer Institute

deaths per 100,000 person-years



Menopause

- Classically defined as cessation of menses for 6-12 months
 - Clinically defined as 12 consecutive months without menses
 - Average age is 51 with a range of 40 to 58
 - Smokers may start 2 to 3 years earlier
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Menopause Definitions

- **Surgical menopause**
 - Excision of both ovaries causing a withdrawal of ovarian hormones causing a cessation of menses and the abrupt thrusting into post menopause state
- **Perimenopause**
 - Transition time from regular, mostly ovulatory, menses to irregular menses
 - May last from 2 to 12 years and is associated with wide fluctuations in estrogen and progesterone
- **Postmenopause** - time after complete cessation

Menopause Diagnosis

- Women differ greatly in symptoms of perimenopause and menopause.
- Symptoms are not life threatening, but do negatively effect quality of life.
- Symptoms vary
 - Irregular menses, vaginal dryness, decreased libido, night sweats, fatigue, forgetfulness, sleep difficulty, mental fogginess, palpations, incontinence, anxiety, mood swings, depression, joint pain, weight gain, difficulty concentrating

The Seven Dwarves of Menopause



Itchy, Bitchy, Sweaty, Sleepy, Bloated, Forgetful & Psycho

Menopause Treatment

- ▶ Limit alcohol, caffeine, junk food
- ▶ No smoking
- ▶ Moderate exercise
- ▶ Increase phytoestrogens in diet
 - Soy, tofu, miso, lentils
- ▶ Hormone replacement therapy
 - Do not use combination progestin-estrogen to prevent symptoms or osteoporosis
 - Increases risk of thrombotic disease, gallstones, fibroids, and breast cancer

Infertility

- ▶ Definition – no pregnancy after one year of normal sexual activity without contraceptives
 - Experienced by 25% at any given time
- ▶ Four sources of infertility
 - The sperm
 - Ovulation
 - Fallopian tube problems
 - Cervical mucus problems



▶ Problems with the sperm

- Increased testicular temperature
- Hormonal or genetic disorders
- Mumps
- Testicular injuries
- Industrial/environmental toxins
- Certain drugs
- Excessive smoking
- Alcohol abuse
- Prostate surgery

▶ Treatment

- Address specific cause
- Clomid increases sperm count, but not motility

I take it
you haven't
had sex
for a while

NORMAL
SPERM



YOUR
SPERM



- ▶ **Problems with ovulation**
 - Hypothalamus not releasing GRH
 - Pituitary may not secrete LH
 - Polycystic ovary syndrome
 - Hypo or hyper thyroidism
 - Adrenal gland disorders
 - Excessive exercise can cause anovulation
 - Obesity can cause anovulation
 - Inadequate nutrition
 - Diabetes mellitus
 - Excessive psychological stress
 - Chronic illness
- ▶ **Diagnosis**
 - Endometrial biopsy 12 days after supposed ovulation
- ▶ **Treatment**
 - Treat the underlying condition

▶ Problems with fallopian tubes

- Anything that can cause scarring of the tubes
- Chlamydia infections is the most common
- Gonorrhea and PID
- Endometriosis
- Diagnosis – US and laparoscopy

▶ Problems with cervical mucus

- Normal cervical mucus is thick and impenetrable to sperm until before ovulation
- Cervical infections can interfere with
- Diagnosis – mid cycle post-coital mucus test

Women's Health Acute Red Flags

- ▶ Redness in skin breast (may be inflammatory CA)
- ▶ Any breast infection other than small sub-areolar abscesses
- ▶ Vaginal infections
- ▶ New onset of an acute SID
- ▶ Molar pregnancy – hydatidiform mole
- ▶ Bleeding with pregnancy



Women's Health Sub-acute Red Flags

- ▶ Unilateral breast discharge
- ▶ Small sub-areolar abscesses
- ▶ Any new breast lump reported by patient
- ▶ Severe PMS
- ▶ Severe dysmenorrhea
- ▶ Abnormal vaginal bleeding
- ▶ Severe (symptomatic) fibroids
- ▶ Severe endometriosis
- ▶ S & S of female tract cancer
- ▶ Pregnancy if patient has not yet started prenatal

