



Sick Call Screener Course

Genitourinary System

(2.5)

R³

Relevant, Responsive, Requested

2.5-2-1



Enabling Objectives

- 1.34 Describe genitourinary system anatomy
- 1.35 Describe genitourinary system physiology
- 1.36 Describe gathering history from a patient with common genitourinary disorders and sexually transmitted infections (STIs)
- 1.37 Describe the basic components of a genitourinary system examination



Enabling Objectives (Cont.)

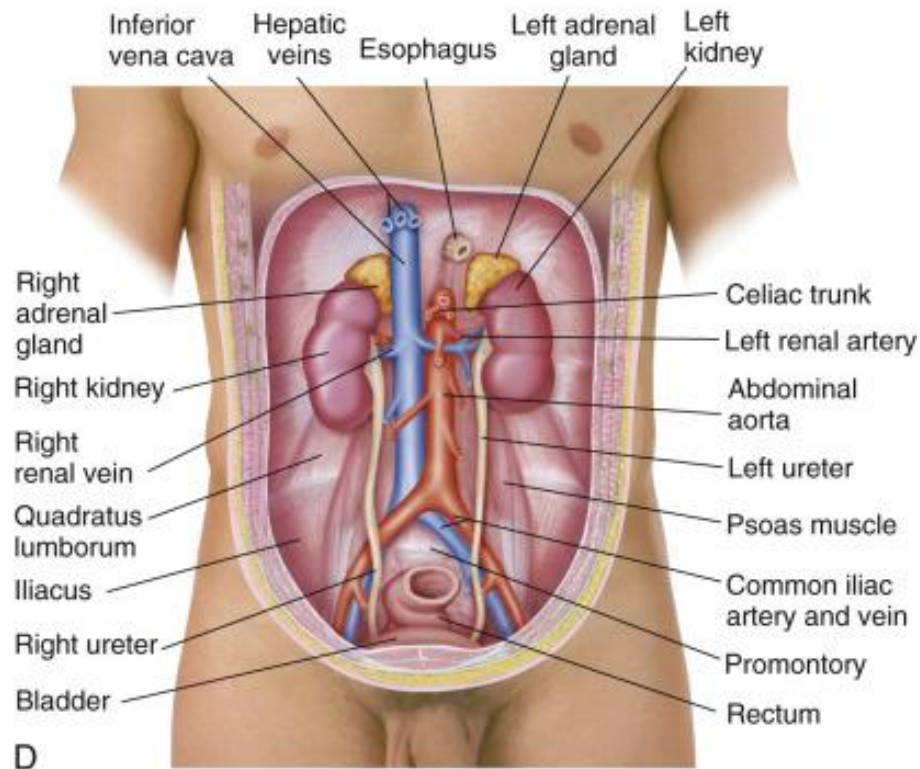
- 1.38 State signs and symptoms of common genitourinary disorders and STIs
- 1.39 State treatments for common genitourinary disorders and STIs
- 1.16 State Red Flag criteria



Introduction

The genitourinary system consists of:

- Kidneys
- Ureters
- Bladder
- Urethra

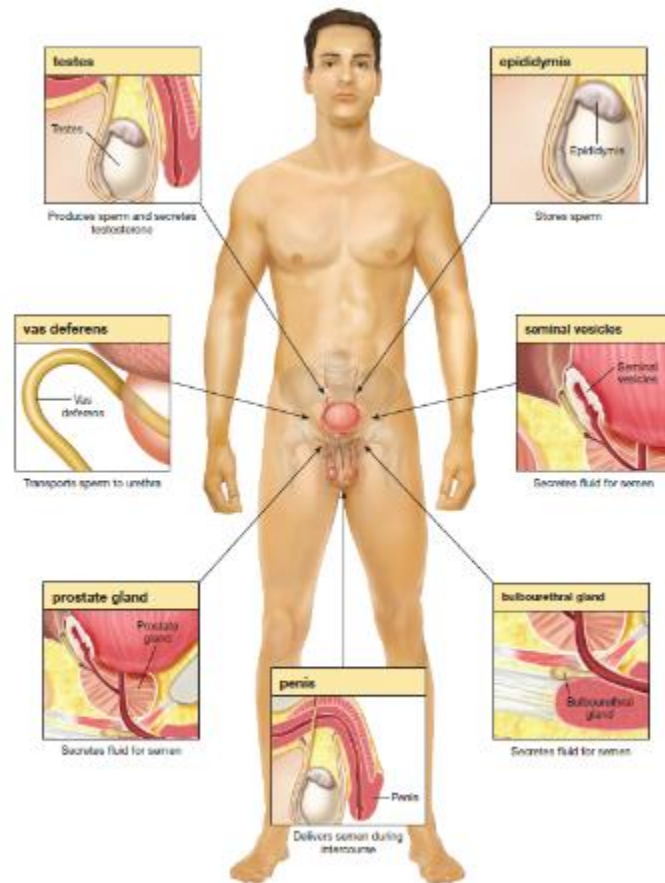


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Male Genitals

- Penis
- Testicles
- Epididymis
- Scrotum
- Prostate gland
- Vas deferens
- Seminal vesicles

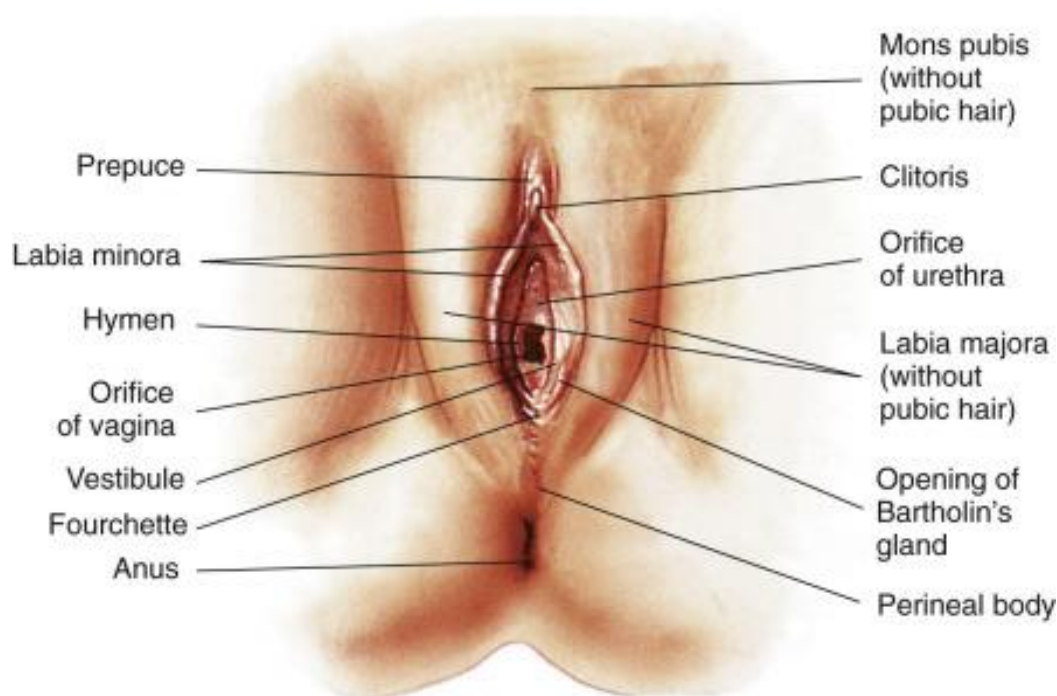


Limmer's Ch.06 p.143



Female External Genitals

- Mons pubis
- Labia majora
- Labia minora
- Clitoris
- Vestibular glands
- Vaginal vestibule
- Vaginal orifice
- Urethral opening

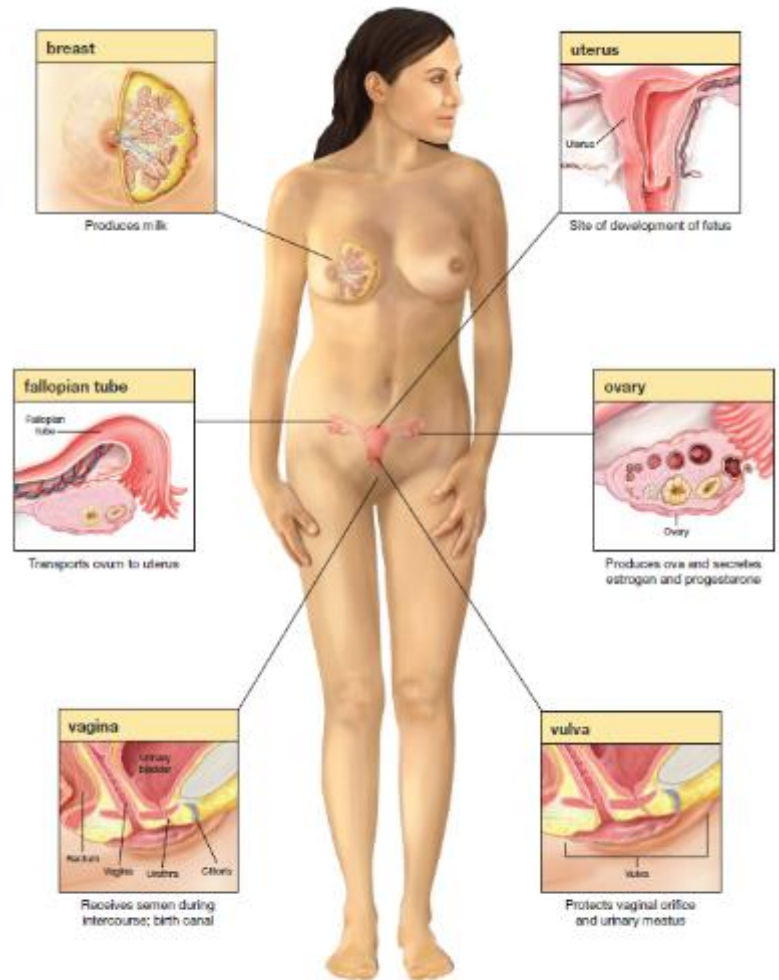


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Female Internal Genitals

- Vagina
- Cervix
- Uterus
- Fallopian tubes
- Ovaries



Limmer's p. Ch.06 144



History of Present Illness

- Chief Complain (CC) – “scrotal pain”
- History of present illness (HPI)
 - OLDCARTS



Patient History

- (S) Subjective:
 - Past Medical and Surgical History (PMHx and PSurgHx)
 - Family History
 - Social History



Review of Systems

- Genitourinary
- Renal
- Male genitourinary
- Female genitourinary
- Musculoskeletal



Physical Examination

- Standby required
- Examine the groin and the following:
 - General appearance
 - Vital signs
 - Abdomen
 - Back



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Inspection

Male Physical Examination:

- Abnormalities
- Smegma
- Head of the penis
- Pubic hair
- Urethral meatus



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Palpation

Male Physical Examination:

- Shaft
- Testes
- Use transillumination
- Inguinal hernia
- Femoral hernia



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Female Physical Examination

- Observe/ Inspect
 - Lice
 - Rashes
 - Excoriations
 - Lesions
 - Surface characteristics
 - Discharge



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Kidneys

- Use percussion
- Tenderness



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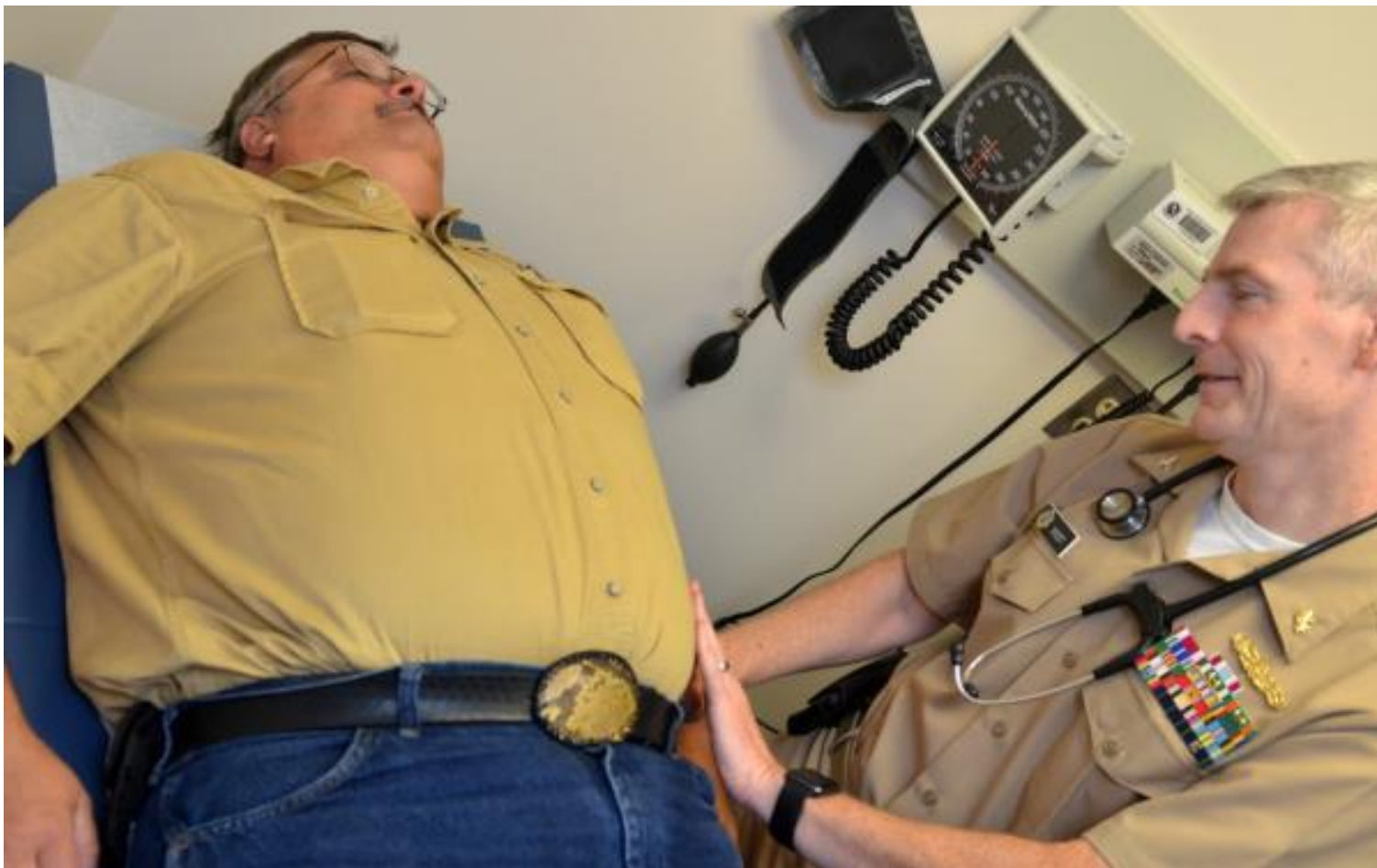
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Common Male GU Diseases



(Photo by: Petty Officer 1st Class Jacob Sipple / Naval Hospital Jacksonville)

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2.5-2-16



Hematuria

- Bright red, rusty brown, or cola color present at the beginning, end, or throughout voiding urine
- Plan:
 - Aspirin
 - NSAIDs
 - Anticoagulants
 - Diuretics
 - Antibiotics



Epididymitis

- Condition:
Swelling of the epididymis
- Plan:
 - Antibiotics
 - Bed rest
 - Elevate
 - Surgery



(From Seidel's Guide to Physical Examination 9th Ed., 2019, www.clinicalkey.com)



Orchitis

- Epididymo-orchitis: Inflammation of the epididymis and testicle, resulting from trauma or infection



(From Seidel's Guide to Physical Examination 9th Ed., 2019, www.clinicalkey.com)



Orchitis (Cont.)

- Plan:
 - Scrotal support, ice packs
 - Bed rest until symptoms subside
 - NSAIDs, antibiotics



Hydrocele

- Abnormal accumulation of fluid within the tunica vaginalis of the testis



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Hydrocele (Cont.)

- Plan:
 - Refer to medical officer
 - Assess rate of fluid accumulation
 - Scrotal support
 - Reassure patient



Spermatocele

- Benign tumor of the epididymis and is a cystic mass of sperm.



(From Seidel's Guide to Physical Examination 9th Ed., 2019, www.clinicalkey.com)



Spermatocele (Cont.)

- Plan:
 - Confirm diagnosis with medical provider
 - Ensure the mass is not within the testis
 - No treatment needed unless painful



Testicular Cancer

- An abnormal growth in testis, commonly appearing in men.
- Plan:
 - Refer to medical provider
 - Refer to Urology



(From Seidel's Guide to Physical Examination 9th Ed., 2019, www.clinicalkey.com)



Prostatitis

- Acute or chronic inflammation of the prostate resulting from infection.
- Plan:
 - Refer to medical provider
 - Urine culture
 - Antibiotics



Inguinal Hernia

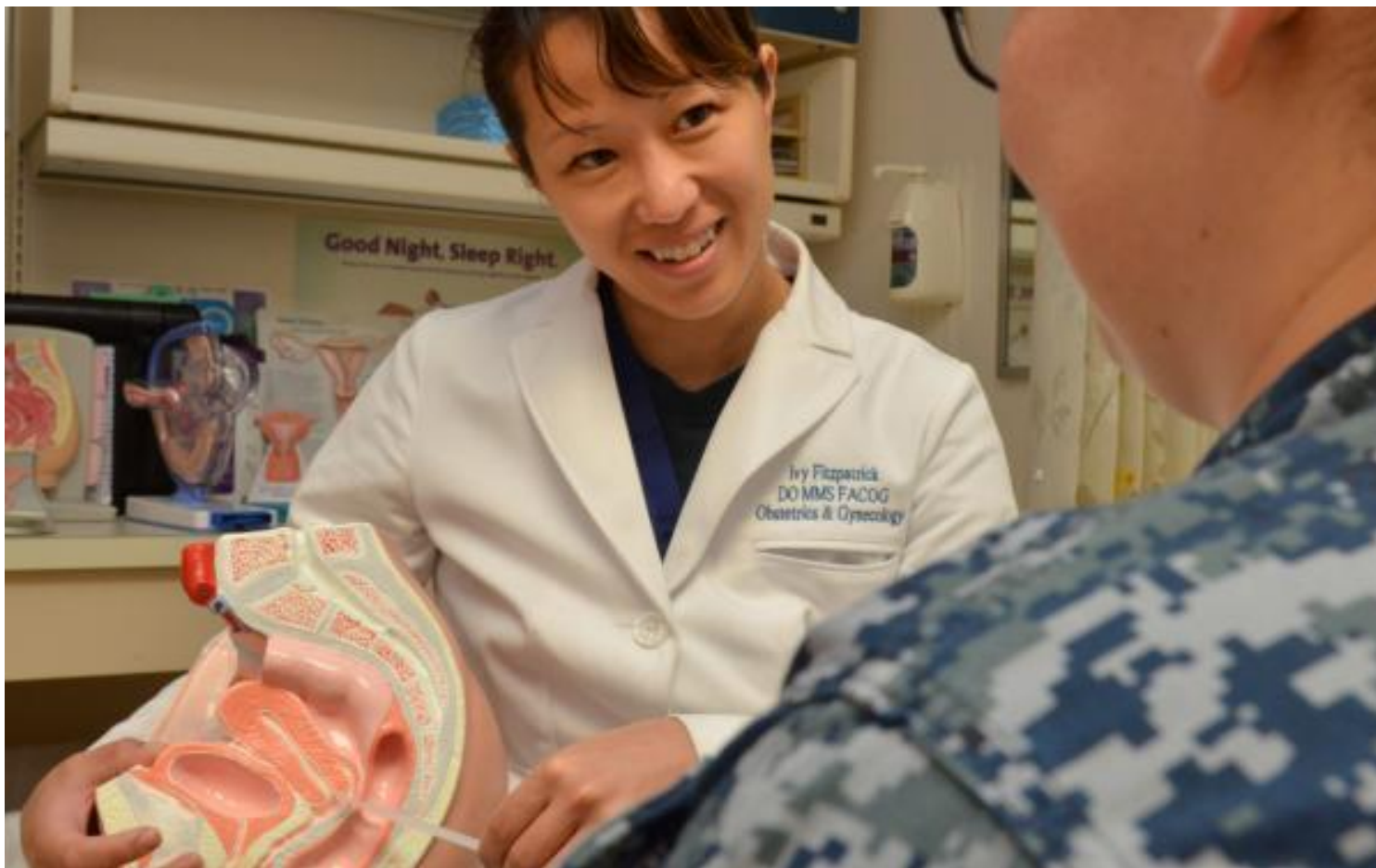
- The protrusion of the small bowel through the abdominal wall
- Plan:
 - Refer to medical officer
 - Refer to surgery



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Common Female GU Diseases



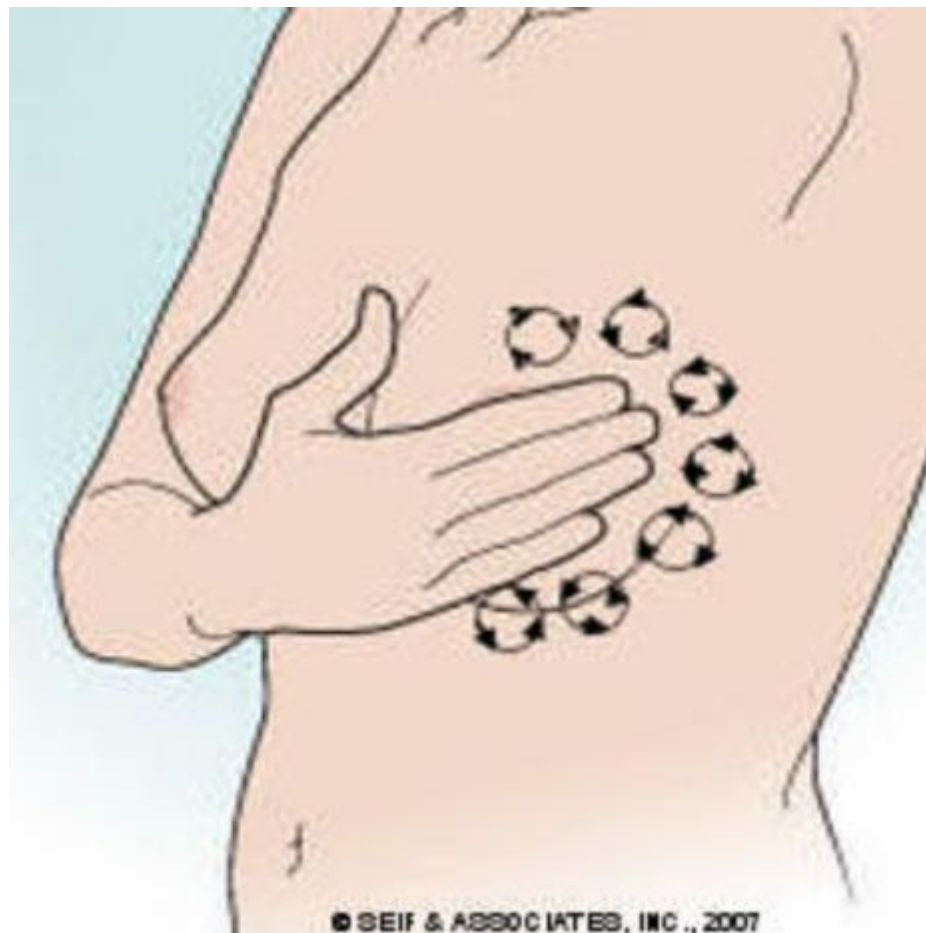
(Photo by: Petty Officer 1st Class Jacob Sipple / Naval Hospital Jacksonville)



Fibroadenoma

Breast Masses:

- A type of breast tumor that is not cancerous
- Made up of breast tissue
- Usually occurs as a single lump



Patient Education/Published February 1, 2018/MyAthens



Fibrocystic

Breast Masses:

- Breasts to become swollen, lumpy, or painful
- Buildup of scar-like tissue
- Common condition, and it is not cancerous



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2.5-2-30



Breast Cancer

Breast Masses:

- An abnormal growth of tissue in the breast that is cancerous
- Malignant tumors can spread to other parts of the body



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Galactorrhea

- Abnormal milky discharge from the breast
- Often white, yellow, or green
- Often caused by irritation of the breast
- Can be a sign of something more serious



(From Seidel's Guide to Physical Examination 9th Ed., 2019, www.clinicalkey.com)



Galactorrhea Plan

- Take medicines only as directed
- Do not squeeze breasts or nipples
- Avoid breast stimulation during sexual activity
- Perform a breast self-exam once a month

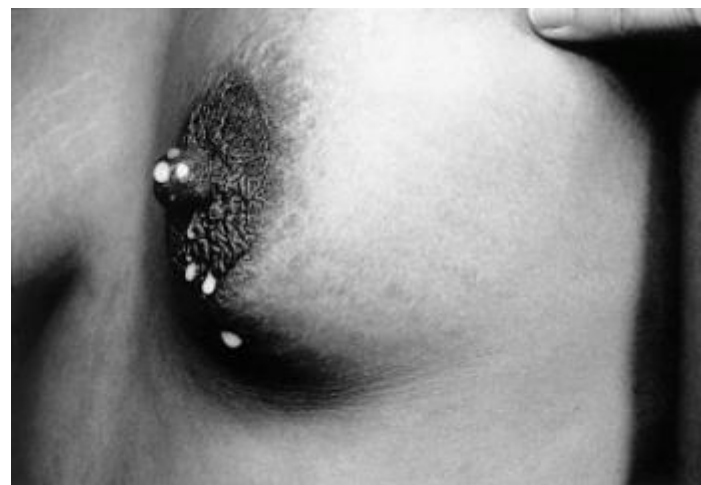


Photo by Haines DE: 2006, Churchill Livingstone./MyAthens



Galactorrhea Plan (Cont.)

- Avoid clothes that rub on nipples
- Use breast pads to absorb the discharge
- Wear a support bra
- Follow-up visits as directed

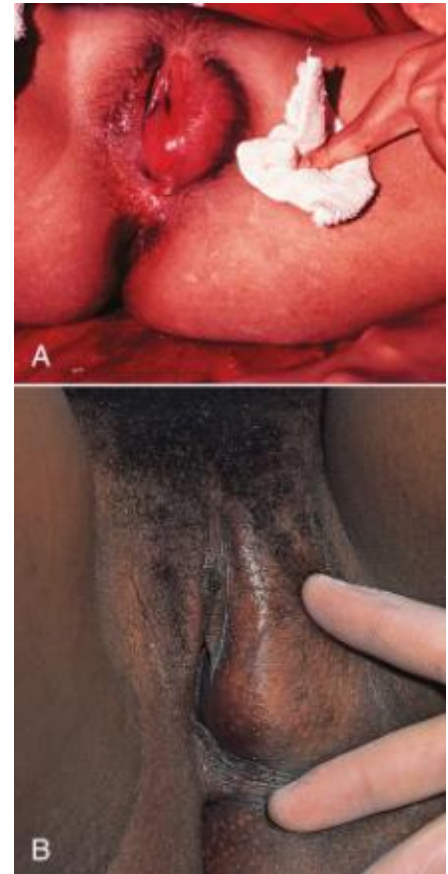


Photo by Haines DE: 2006, Churchill Livingstone./MyAthens



Inflammation of Bartholin Gland

- Caused by gonococcal infection
- Plan:
 - Refer to medical provider
 - May require incision and drainage (I&D)
 - Antibiotics

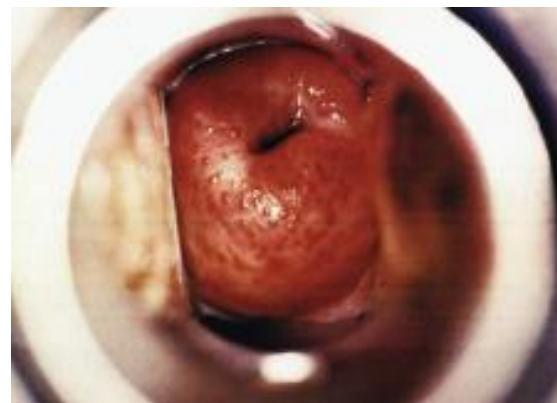


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Vaginal Infections

- Often produces a vaginal discharge and may be accompanied by urinary and other symptoms
- Plan:
 - Refer to medical provider
 - Medications

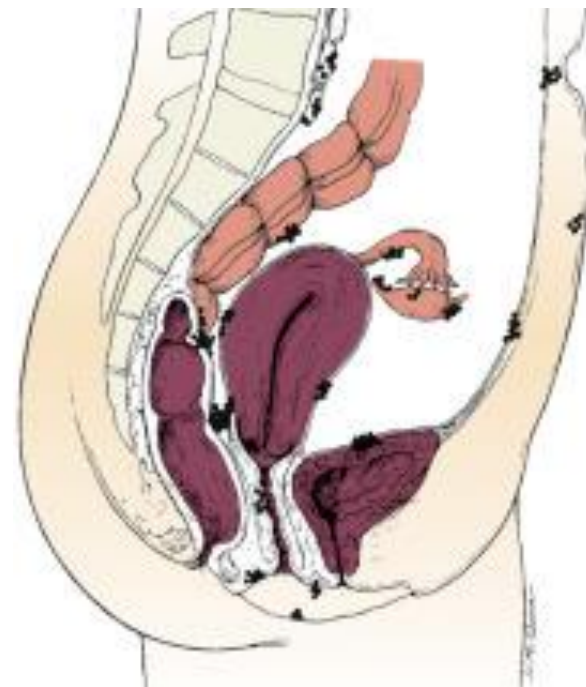


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Endometritis

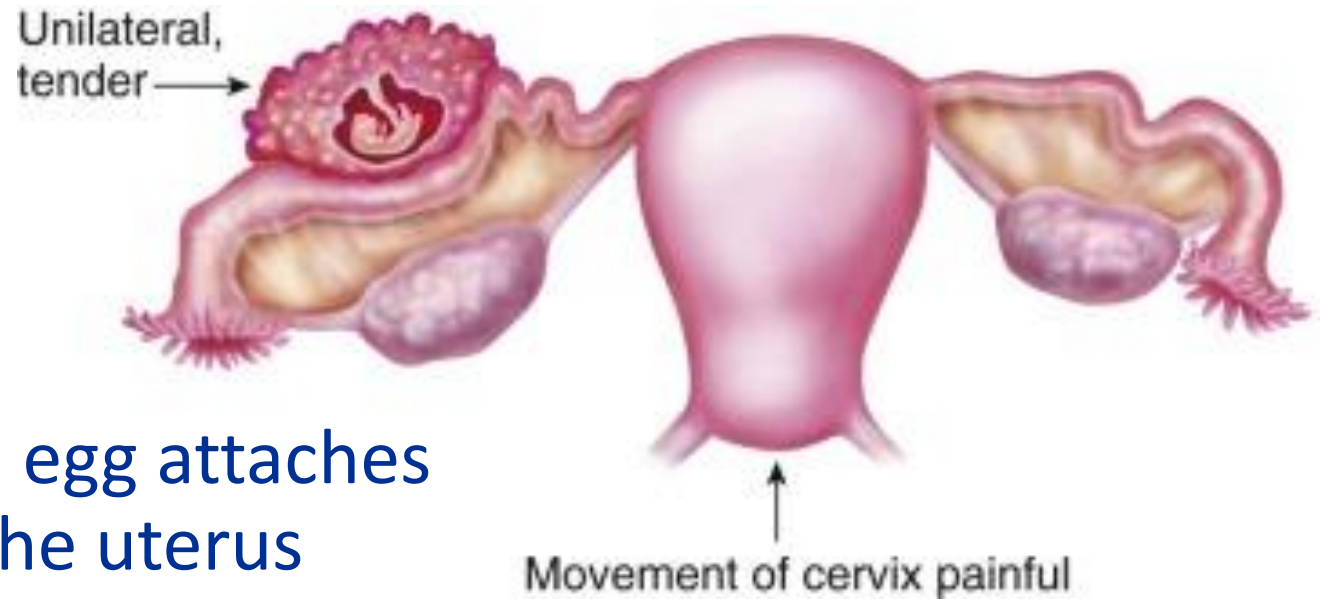
- Irritation, soreness, or inflammation that affects the lining of the uterus
- Plan:
 - Blood tests
 - Cervical culture
 - Refer to medical provider
 - Antibiotics



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Tubal (Ectopic) Pregnancy



- Fertilized egg attaches outside the uterus
- Plan:
 - Methotrexate injection
 - Surgery
 - Rho (D) immune globulin shot

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Pregnancy Loss

- Can be both predictable and unpredictable
- Family may experience grief
- Provide support
- Documentation



Limmer's Ch. 32 pg. 893



Pelvic Inflammatory Disease



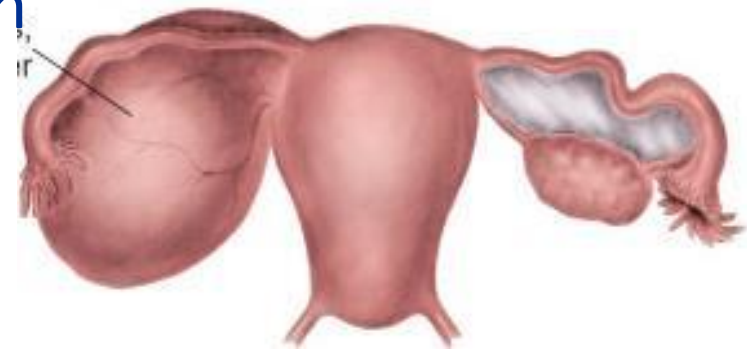
- Caused by gonococcal and chlamydial infection
- Plan:
 - Perform HCG
 - Refer to medical provider
 - Severe forms of PID require hospitalization
 - Antibiotics

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Ovarian Cyst

- Fluid-filled sac that forms on an ovary
- Plan:
 - Medicines to help relieve pain
 - A procedure to drain the cyst
 - Hormone treatment or birth control pills
 - Regularly monitor for 2–3 months



(From Seidel's Guide to Physical Examination 9th Ed., 2019, www.clinicalkey.com)



Cystitis/Urinary Tract Infection

- Bacterial infection of the bladder
- Plan:
 - Refer patient to medical provider
 - Antibiotics
 - Increase oral intake
 - Pyelonephritis may require hospitalization



Kidney Stones

- Excruciating flank pain that often radiates to the back and groin
- Associated with fevers, chills, dysuria, frequency, hematuria
- Urinalysis shows gross or microscopic hematuria, pyuria and even stones



Kidney Stones (Cont.)

- Plan:
 - Refer to medical provider
 - Pain management
 - Strain urine and catch stone for pathologic identification
 - Refer to urology for full evaluation



From Roberts, J.R. and others [Eds.]. [2014]. Roberts and Hedges' clinical procedures in emergency medicine [6th ed.]. Philadelphia: Elsevier.



Sexually Transmitted Infections

All patients presenting with signs and symptoms of STDs should receive:

- Full STD work-up, including labs
- Counseling
- Hepatitis B series
- Report to Navy Environmental & Preventive Medicine Unit



Non-Gonococcal Urethritis (NGU) & Gonorrhea

- An infection of the urethra by an organism commonly due to *E. coli* and *Chlamydia*
- Gonorrhea is caused by the gram-negative diplococcus *Neisseria Gonorrhoea*



(Photo by Mandell GL et al: Principles and practice of infectious diseases, ed 6, Philadelphia, 2005)



Non-Gonococcal Urethritis (NGU) & Gonorrhea (Cont.)

- Plan:
 - STD work-up
 - Antibiotics
 - Refrain from sexual contact until treatment is complete



(Photo by Mandell, Douglas, and Bennett's Principles and Practice of Infectious Diseases. Published January 1, 2015 / MyAthens)



Chlamydia

- Transmitted through sexual contact of an infected partner
- Can also be spread from an untreated mother to her baby during childbirth



(Photo by Goldman-Cecil Medicine. Published January 1, 2016./ MyAthens)



Chlamydia (Cont.)

- Plan:
 - Azithromycin OR Doxycycline
 - Treating infected patients prevents transmission to sex partners
 - Treating pregnant women usually prevents transmission to the infant during birth
 - Alternative Regiments



Syphilis

- Signs and Symptoms
- Transmission
- Diagnosis



(Photo by Goldman-Cecil Medicine. Published January 1, 2016./ MyAthens)



Syphilis (Cont.)

- Plan
- Follow-Up
- Treatment of Contacts



www.dvidshub.net, (U.S. Navy photo by Douglas H Stutz, NHB PAO)

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2.5-2-51



Genital Herpes Infection

- Transmission
- Signs and Symptoms



(Adapted from White GM, Cox NH: Diseases of the skin, ed 2. St Louis, 2006, Mosby.)



Genital Herpes Infection (Cont.)

- Diagnosis

- Plan



(Adapted from Bologna J, Jorizzo J, Rapini R: Dermatology, St Louis, 2003, Mosby/ MyAthens)



Venereal Warts

- Caused by the human papilloma virus (HPV)
- Non-tender papules or plaques with cauliflower-like appearance



(From Seidel's Guide to Physical Examination 9th Ed., 2019. www.clinicalkey.com)



Venereal Warts (Cont.)

- Plan:
 - Refer to medical provider
 - Use cryotherapy for warts
 - Podophyllin is used for genital warts



(From Seidel's Guide to Physical Examination 9th Ed., 2019, www.clinicalkey.com)



Require Red Flags



Photo by Marcy Sanchez/ William Beaumont Army Medical Center Public Affairs Office

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2.5-2-56



Ovarian Torsion

- Ovary becomes twisted and cuts off its own blood supply
- Ovary may become infected



Ovarian Torsion (Cont.)

- Signs or Symptoms –
 - Pain may be severe and may come and go suddenly
 - Abdominal pain that spreads to surrounding areas
 - Nausea, vomiting and Fever



Ovarian Torsion Plan

- Plan:
 - Surgery to untwist the ovary
 - Oophorectomy if ovaries cannot be untwisted



Ruptured Ectopic Pregnancy

- Pregnancy leading to tearing or bursting of a fallopian tube that causes internal bleeding
- If untreated it can lead to blood loss, shock, or even death



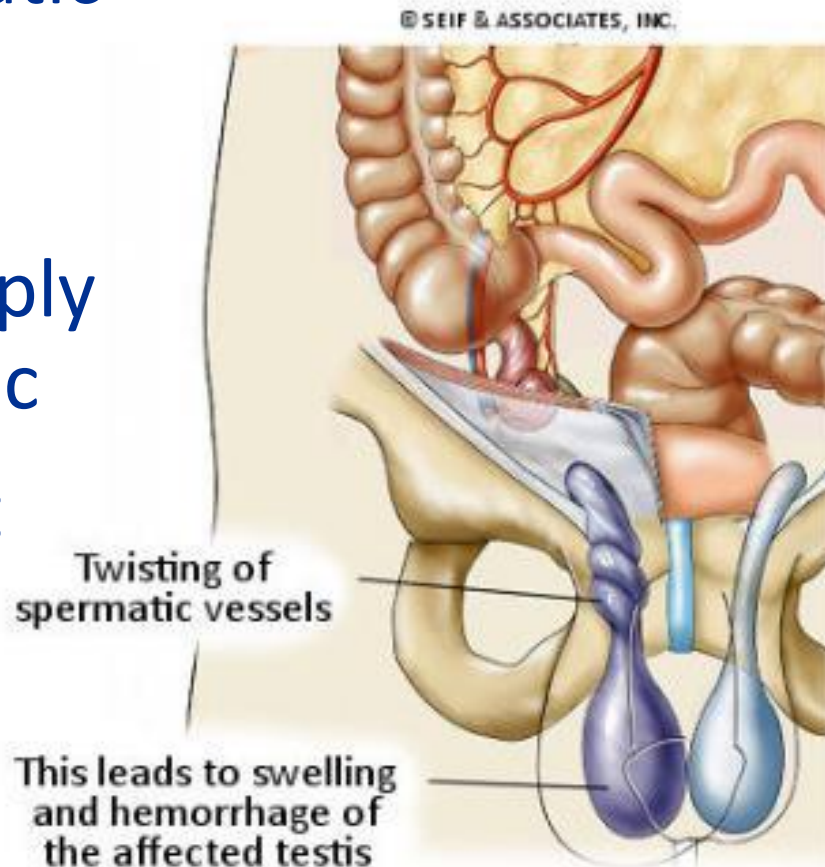
Ruptured Ectopic Pregnancy (Cont.)

- Get help right away if:
 - Develop worsening pain
 - Fever or chills
 - Vaginal bleeding.
 - Redness and swelling at the incision site.
 - Nausea and vomiting.
 - Feeling dizzy or weak.
 - Feeling light-headed or if they faint



Testicular Torsion

- Twisting of the spermatic cord, artery, and vein that go to the testicle
- Cuts off the blood supply to everything in the sac
- Can be caused by a hit on the scrotum or by certain movements during exercise

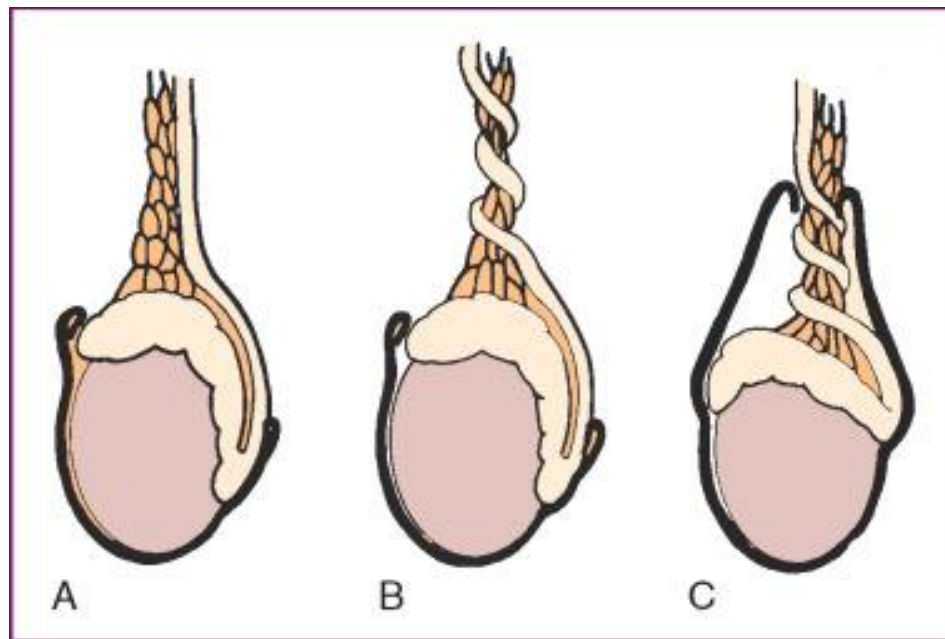


Patient Education. Published May 22, 2017/My Athens



Testicular Torsion (Cont.)

- Signs or Symptoms:
 - Pain, swelling, erythema, hard and tender
 - Excess fluid in the tissue
 - One testis may be higher
 - Scrotum may be stuck to the testicle
 - Nausea, vomiting, and fever



Emergency and Trauma Care for Nurses and Paramedics. Published January 1, 2016.



Testicular Torsion Plan

- Plan:
 - Manual untwisting of the testicle may be done when the testicle is still mobile and the maneuver is not too painful
 - Surgery usually is necessary and should be done as soon as possible after torsion occurs
 - The testicle is untwisted and evaluated and possibly removed



Strangulated Hernias

- Emergency Surgery
- Signs or Symptoms:
 - A bulge in the groin that is very painful and tender to the touch
 - A bulge that turns red or purple
 - Fever, nausea, and vomiting
 - Inability to have a bowel movement or to pass gas



(Patient Education. Published February 1, 2018/ MyAthens)



Summary and Review

- 1.34 Describe genitourinary system anatomy
- 1.35 Describe genitourinary system physiology
- 1.36 Describe gathering history from a patient with common genitourinary disorders and sexually transmitted infections (STIs)
- 1.37 Describe the basic components of a genitourinary system examination



Summary and Review (Cont.)

- 1.38 State signs and symptoms of common genitourinary disorders and STIs
- 1.39 State treatments for common genitourinary disorders and STIs
- 1.16 State Red Flag criteria



Questions



R³

Relevant, Responsive, Requested

2.5-2-68