ATHT 4950
Pathology Competencies
General Medical Conditions

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Pathology — Fall Semester Competencies

General Medical Conditions — Peer Review Competency

1. **Medical History** _____ _____
   A. the student is thorough in gaining a medical history and includes:
      1. previous medical history
      2. previous surgical history
      3. pertinent family medical history
      4. current medication history
      5. relevant social history
      6. chief medical complaint

2. **Integumentary System** _____ _____
   A. Student recognizes the signs and symptoms as well as predisposing conditions associated with the following diseases or conditions:
      1. abscesses
      2. acne vulgaris
      3. carbuncle
      4. cellulites
      5. molluscum contagiosum
      6. dermatitis
      7. eczema
      8. folliculitis
      9. frostbite
      10. furunculosis
      11. herpes simplex
      12. tinea versicolor
      13. pediculosis
      14. herpes zoster
      15. hives
      16. impetigo
      17. psoriasis
      18. ringworm
      19. scabies
      20. sebaceous cysts
      21. tinea cruris
      22. tinea pedis
      23. verruca plantaris
      24. verruca vulgaris
      25. tinea capitis

   B. Acts quickly to contain skin infections that are potentially contagious and refers when appropriate.
   C. Recognizes and takes appropriate steps to manage and control a common contagious viral and infectious disease.

3. Eyes, Ears, Nose, and Throat

A. Student recognizes the signs and symptoms as well as predisposing conditions associated with the following diseases or conditions:
   1. common cold
   2. conjunctivitis
   3. laryngitis
   4. pharyngitis
   5. rhinitis
   6. sinusitis
   7. tetanus
   8. tonsillitis

4. Respiratory System

A. Student recognizes the signs and symptoms as well as predisposing conditions associated with the following diseases or conditions:
   1. asthma
   2. bronchitis
   3. hyperventilation
   4. hay fever
   5. influenza pneumonia
   6. upper respiratory infection (URI)

5. Cardiovascular System

A. Student recognizes the signs and symptoms as well as predisposing conditions associated with the following diseases or conditions:
   1. hypertension
   2. hypertrophic myocardiopathy
   3. hypotension
   4. migraine headache shock
   5. syncope
   6. lyme disease
   7. iron deficiency anemia
   8. sickle cell anemia

6. Endocrine System

A. Student recognizes the signs and symptoms as well as predisposing conditions associated with the following diseases or conditions:
   1. diabetes
   2. hyperthyroidism
   3. hypothyroidism
   4. pancreatitis

7. Gastrointestinal Tract

A. Student recognizes the signs and symptoms as well as predisposing conditions associated with the following diseases or conditions:
   1. appendicitis
   2. colitis
   3. constipation
   4. diarrhea
   5. esophageal reflux
   6. gastritis
   7. gastroenteritis
   8. indigestion
   9. ulcer
   10. irritable bowel syndrome

8. Eating Disorders

A. Student recognizes the signs and symptoms as well as predisposing conditions associated with the following diseases or conditions:
   1. anorexia
   2. bulimia
   3. obesity
   4. What are some interventions you would include with these conditions?

9. Sexually Transmitted Diseases

A. Student recognizes the signs and symptoms as well as predisposing conditions associated with the following diseases or conditions:
   1. HIV/AIDs
   2. hepatitis
   3. Chlamydia
   4. genital warts
   5. gonorrhea
   6. syphilis

10. Genitourinary Tract and Organs

A. Student recognizes the signs and symptoms as well as predisposing conditions associated with the following diseases or conditions:
   1. kidney stones
   2. spermatic cord torsion
   3. candidiasis
   4. urethritis
   5. urinary tract infection
   6. hydrocele
   7. varicocele

11. Gynecological disorders

A. Student recognizes the signs and symptoms as well as predisposing conditions associated with the following diseases or conditions:
   1. amenorrhea
   2. dysmenorrheal
   3. oligomenorrhea
   4. pelvic inflammatory disease
   5. vaginitis

12. Viral Syndromes

A. Student recognizes the signs and symptoms as well as predisposing conditions associated with the following diseases or conditions:
   1. infectious mononucleosis
   2. measles
   3. mumps

13. Neurological Disorders

A. Student recognizes the signs and symptoms as well as predisposing conditions associated with the following diseases or conditions:
   1. epilepsy
   2. syncope
   3. meningitis
   4. Reflex sympathetic dystrophy

14. Nutritional Concerns

A. Student can recommend nutritional guidelines for the following:
   1. pre-participation meal---endurance vs. power athlete diet choices differ
      a. purpose is to provide fluid and energy during performance yet not interfere
      b. 3-4 hours before event to avoid nausea/some athletes will vary from this. This keeps risk of injury from being hit in the stomach low, gastric distress down, diarrhea unlikely from anxiety, high intensity sports don't need a full stomach
      c. Carb loading—3 days of a high carb diet with tapering exercise the week before a competition and complete rest the day before helps enhance muscle glycogen in a long term aerobic endurance exerciser. Side effects include increased water retention and wt gain, flatulence and diarrhea.
   2. weight loss—can be found in Essentials of Strength Training and Conditioning
   3. weight gain—Can be found in Essentials of Strength Training and Conditioning
   4. fluid replacement—Essentials of Strength Training and Conditioning

B. Student can demonstrate ability to use the nutritional food pyramid.
   1. Five food groups: bread, cereals, rice, pasta; fruit; vegetables; milk, yogurt, cheese; meat, poultry, fish, dry beans, eggs, and nuts
   2. **Pyramid guidelines vary due to sex, age, and level of activity**
   3. Fats, oils, and sweets used sparingly
   4. Milk, yogurt, cheeses--- ~2-3 servings
   5. Vegetables-- ~3-5 servings
   6. Meat, poultry, fish-- ~2-3 servings
   7. Fruit group -- ~2-4 servings

8. Bread, cereal, pasta-- ~6-11 servings
9. Maximum number of servings from the food guide pyramid provides about 2800 kcal.

C. Student can assess the following nutritional intake values:
   1. RDA or equivalency—recommended daily allowance based on a 2000 calorie diet
   2. Protein intake-- ~20%, caloric intake and biological value of the protein needs to be considered. If a person is in a state of negative caloric balance, protein is a source of energy. If caloric intake goes down, protein intake needs to go up. Foods of animal origin are high in biological value. The higher the biological value, the lower the protein requirement. RDA is .8 grams per kg of body weight. 1.5-2.0 grams per kg body weight is recommended for athletes.
   3. Fat intake-- ~30%, in elite athletes it is common to see greater than a 30% intake and it does not effect them negatively, upper limit for active people is 35%, minimal intakes are 15% for adults and 20% for women of reproductive age.
   4. Carbohydrate intake-- ~50-55%, training factor plays a role in determining recommendation levels. If aerobic endurance athletes train for longer than 90 minutes daily, they need 8 to 10 g/kg of body weight (2400-3000 kcal from carbohydrate in a 165lb athlete). Strength, sprint, and skill athletes need only 5-6 g/kg per day.
   5. Vitamin intake---needed in small amounts
   6. Mineral intake---needed in small amounts, calcium and iron sodium, potassium, and chloride are the major minerals.
   7. Fluid intake—2-2.7 quarts needed per day to replace urine and feces loss, sweat, lungs, etc. Athletes sweating profusely for several hours a day may need an extra 3-4 gallons.

D. Student is able to determine energy expenditure and caloric intake.
   1. The number of calories an athlete needs depends on body size, demands of the sport, length of training, training conditions and age. Energy requirement is defined as energy intake equal to expenditure.
   2. Highest caloric intakes are found in male swimmers, cyclists, triathletes and are as much as 6000 kcal/day. Lower intakes found in female figure skaters, gymnasts, and dancers who consume less than 1200 kcal/day. The best way to know whether the athlete is consuming adequate calories is to monitor body weight. In the absence of dehydration, constant body weight indicates balance.
   3. Energy expenditure depends on resting metabolic rate, thermogenesis, and physical activity. Resting metabolic rate is the largest contributor at 60-75% of daily expenditure. Second largest is physical activity. 7-10% is accounted for by thermogenesis.

E. Student is capable of calculating the basal metabolic rate of energy expenditure.
   1. **Formula:** BMR for males = 66 + (13.7 x **w**) + (5 x **h**) - (6.8 x **y**)
      BMR for females = 655 + (9.6 x **w**) + (1.8 x **h**) - (4.7 x **y**)

      where:
      h = height in centimeters (inches x 2.54)
      w = weight in kilograms (pounds ÷ 2.2)
      y = age in years

2. **The amount of calories needed by the body to maintain heart rate, breathing, and normal body temperature. It measures the body at rest (not asleep) at room temperature.**