LYMPHAT11IC SYSTEM

PART 3

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CONDITIONS OF THE LYMPHATIC SYSTEM

- Lymphedema and Edema
- Lymphangitis
- Lymphadenopathy and Lymphadenitis

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LYMPHEDEMA AND EDEMA

- Lymphedema
  - Abnormal accumulation of fluids caused by obstruction in lymph flow causing swelling
    - Primary: due to lymph vessel or nodal malformation; rare
    - Secondary: due to a condition or medical procedure
- Edema
  - Abnormal accumulation of fluids in the interstitial space.
  - Can be caused by tissue injury e.g. swollen ankle or damage to circulatory system e.g. venous insufficiency

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Lymphedema and Edema (cont'd.)

Primary lymphedema

From Seidel HM et al: *Mosby's guide to physical examinations,* ed 6, St. Louis, 2006, Mosby.

Secondary lymphedema

From Seidel HM et al: *Mosby's guide to physical examinations,* ed 6, St. Louis, 2006, Mosby.

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Lymphedema and Edema (cont'd.)

- Peripheral edema – Edema of an extremity
- Dependent edema – Type of peripheral edema found in gravity-dependant areas of the lower extremity
- Angioedema – Edema seen in allergic reactions
- Pitting edema – Edema that leaves a pit or dent in skin once compressed and released
- Non-pitting edema – Does not leave a dent after skin is compressed and released

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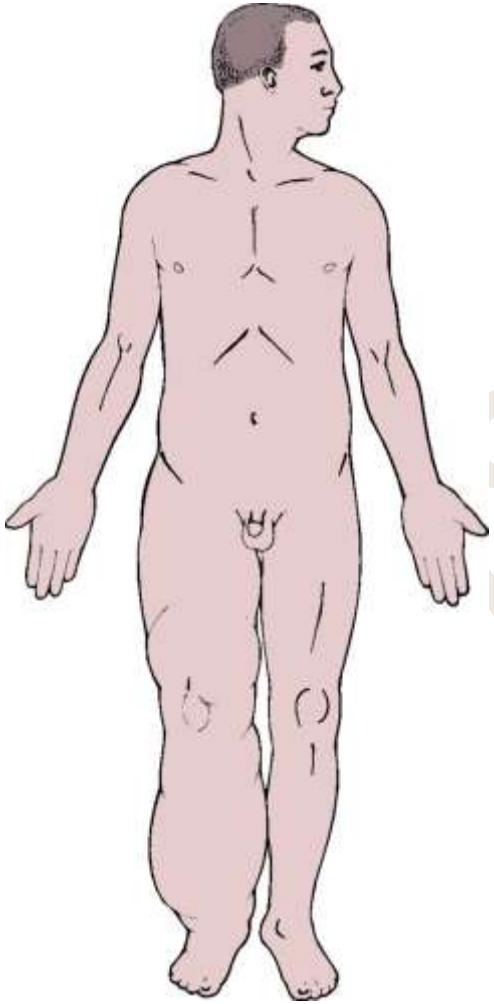
Lymphedema and Edema (cont'd.)



From Frazier MS, Drzymkowski J: *Essentials of human disease and conditions,* ed 3, 2004, St. Louis, Saunders; Callen JP et al: *Color atlas of dermatology,* ed 2, Philadelphia, 2000, Saunders; and Bloom A, Ireland J: *Color atlas of diabetes,* ed 2, London, 1992, Mosby-Wolfe.

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Lymphangitis

- Infection of lymphatic vessels; usually an indication that a primary infection is spreading
- D.D: thrombo-phlebitis

From Stone DR, Gorbach SL: *Atlas of infectious diseases,* Philadelphia, 2000, WB Saunders.

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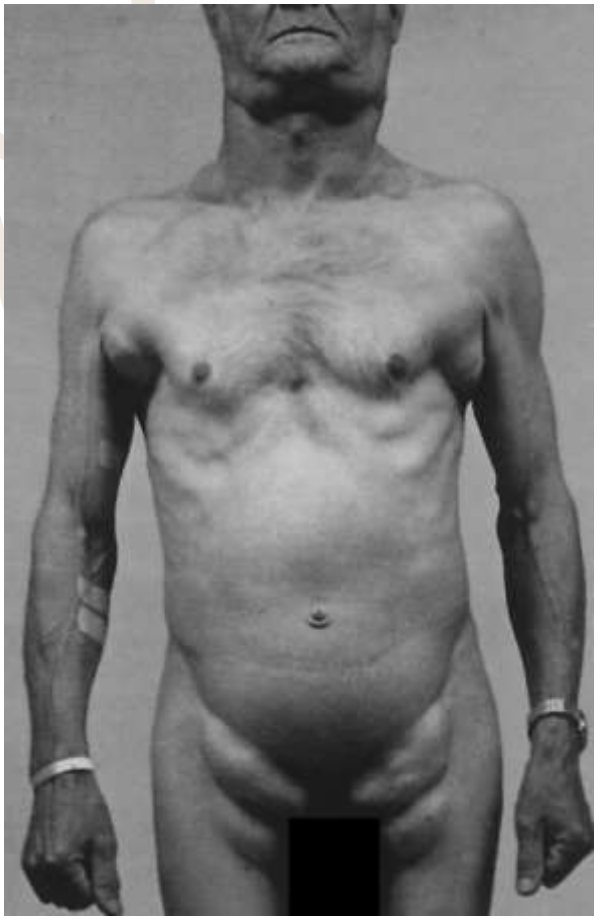
Lymphadenopathy and Lymphadenitis

- Lymphadenopathy – Enlarged lymph nodes
- Lymphadenitis – Infected lymph nodes
- Associated S & S: skin may be red, hot and tender



Courtesy Dr. A.R. Kagan, Los Angeles. In Del Regato JA, Spjut HJ, Cox JD: *Ackerman and del Regato's cancer,* ed 2, St. Louis, 1985, Mosby.

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Conditions of Immune System

- Allergy
- Chronic fatigue syndrome
- Systemic lupus erythematosus
- Acquired immunodeficiency syndrome

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Allergy

- Overreaction of immune system to otherwise harmless agents; also called a **hypersensitivity reaction Type I**
- Anaphylaxis is the least common, but most serious reaction
  - Caused by insect sting, ingestion of nuts or shellfish, or drug reaction

- An allergen is a substance that promotes allergic reactions. What are some examples?
- Pet dander, lubricants that contain nut oils, and latex gloves are all possible allergens. The therapist should ask clients with known allergies to review the ingredients list before applying a massage lubricant

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Emergency Measures for Anaphylaxis

- Call 911 i.e. **RED FLAG**
- Calmly reassure the person
- Check for special medications, such as injectable epinephrine; administer medication
- Have person lie flat; elevate feet 12 inches (30 cm)
- Cover person with coat or blanket; loosen tight clothing

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Emergency Measures for Anaphylaxis (cont'd.)

- Do not give anything to drink
- If person is vomiting or bleeding from mouth, place on side to prevent choking
- Perform CPR if person is not breathing or does not have a pulse (if you are CPR certified)

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OTHER IMMUNE CONDITIONS

- CHRONIC FATIGUE SYNDROME
- SYSTEMIC LUPUS ERYTHEMATOSUS
- AIDS

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CHRONIC FATIGUE SYNDROME

- Disease characterized by prolonged and severe fatigue not relieved by rest and may worsen with physical or mental activity
- Reduce treatment time and pressure if client is overly fatigued
- CFS is often accompanied by flulike symptoms such as low-grade fever, sore throat, headaches, unexplained muscle soreness, joint pain, and lymph node tenderness

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SYSTEMIC LUPUS ERYTHEMATOSUS

- Chronic inflammatory disease affecting skin, bones and joints, nervous system, kidneys, lungs, and other organs
- There are three main types of lupus, with systemic lupus erythematosus being the most common. The two other types are discoid lupus erythematosus and drug-induced

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A, Courtesy the Department of Dermatology, University of North Carolina at Chapel Hill. In Goldstein BJ, Goldstein AO: *Practical dermatology,* ed 2, St. Louis, 1997, Mosby. B, from Hill MJ: *Skin disorders—Mosby's clinical nursing series,* St. Louis, 1994, Mosby.

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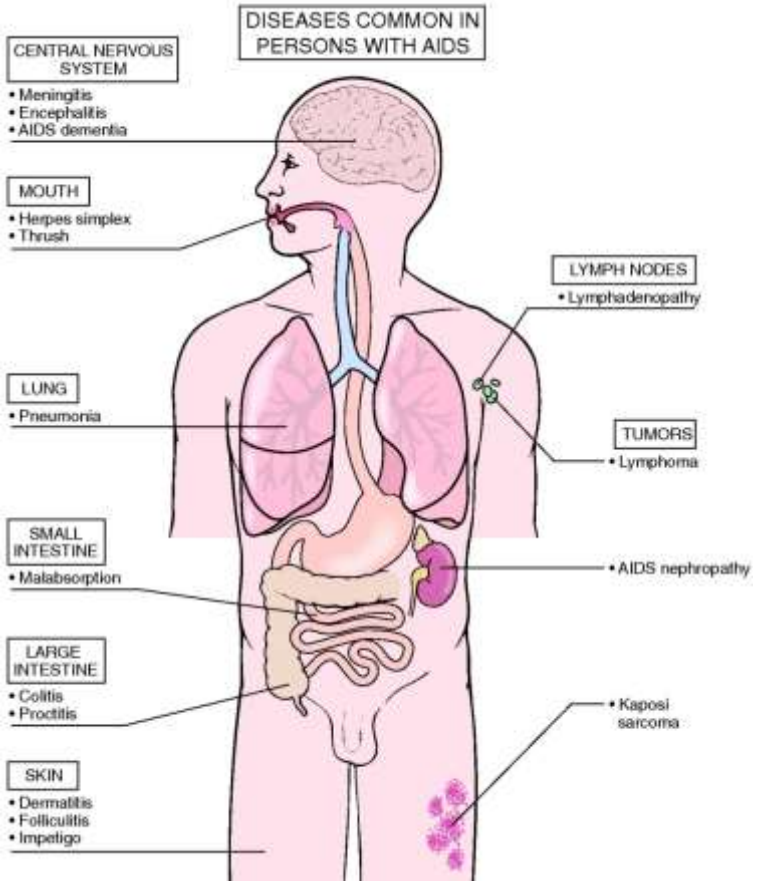
Acquired Immunodeficiency Syndrome (AIDS)

- Viral disease causing progressive impairment of immune system
- AIDS is the final stage (Stage IV) of HIV infection



From Salvo S: *Massage therapy: principles and practice,* ed 2, Philadelphia, 2003, WB Saunders.

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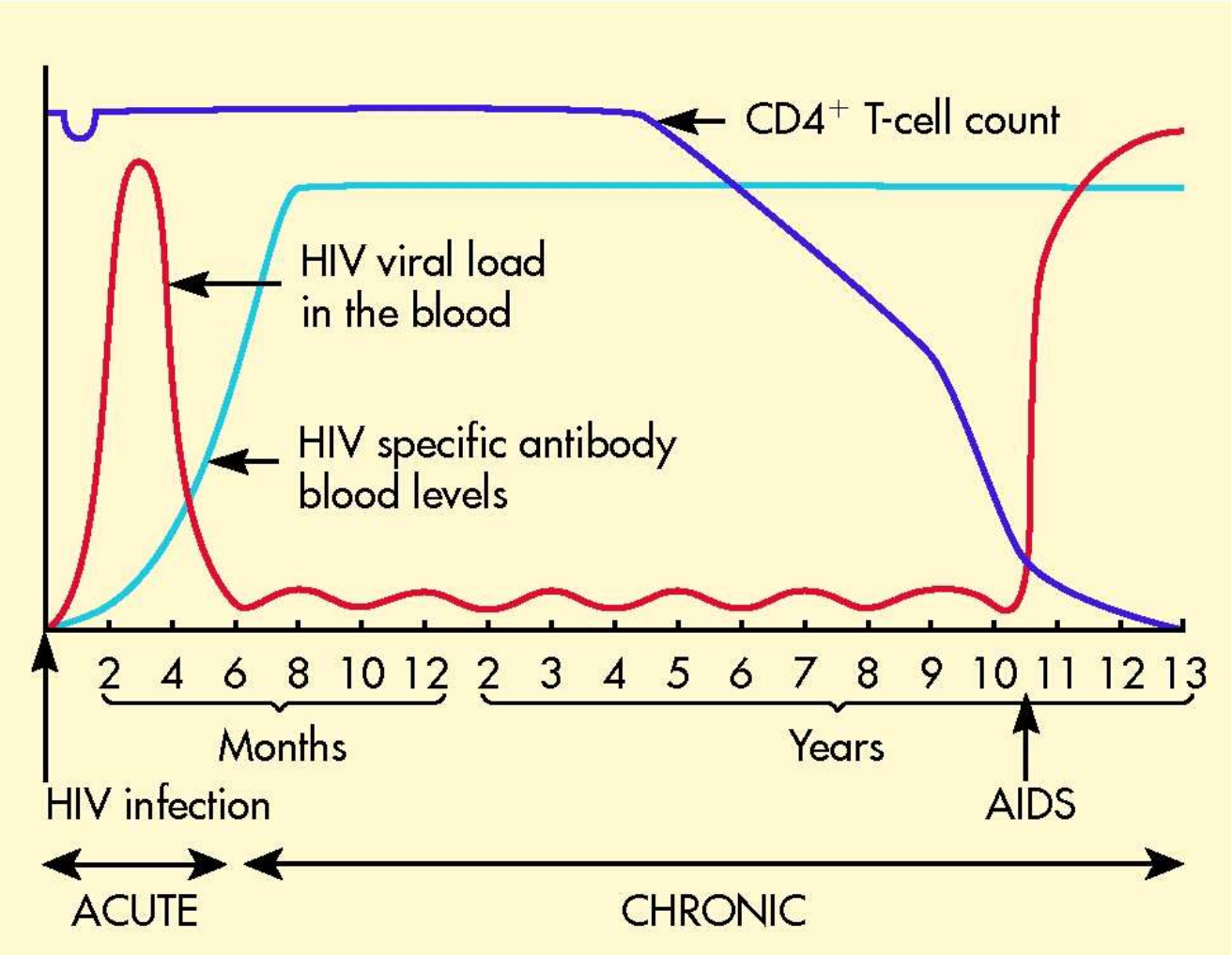

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