INTRODUCTION:

Clients with disorders of the peripheral vascular and lymphatic system experience a wide variety of circulatory deficits. As the heart ejects blood with each beat, a closed system of blood vessels transports oxygenated blood to all body organs and tissues and then returns it to the heart for reoxygenation in the lungs. This branching network of vessels is called the peripheral vascular system. Nursing care should be planned and implemented to meet the needs of the client and individualized according to the client’s response to alterations in peripheral and lymphatic blood flow.

OBJECTIVES:

Upon completion of this unit, the student will be able to:

A. Theory
   1. Identify and describe the structure and functions of the arterial and venous networks of the peripheral vascular system.
   2. Describe the physiologic dynamics of blood flow, peripheral resistance, and blood pressure.
   3. Identify and describe the major factors influencing arterial blood pressure.
   4. Identify and describe the structures and function of the lymphatic system.
   5. Identify interview questions pertinent to the assessment of the peripheral vascular and lymphatic systems.
   6. Describe physical assessment techniques for peripheral vascular and lymphatic function.
   7. Identify manifestations of impairment in the function of the peripheral vascular and lymphatic systems.
   8. Describe variations in assessment findings for the older adult.

B. Clinical – See NURS B85LV and NURS B86LV

ASSIGNMENT: LeMone-Burke Chapter 31
CHAPTER 31
LECTURE OUTLINE

ASSESSING CLIENTS WITH PERIPHERAL VASCULAR
AND
LYMPHATIC DISORDERS

I. Anatomy and Physiology
   1. Arterial circulation
   2. The lymphatic system

II. Assessment of Peripheral Vascular and Lymphatic Function
   1. The health assessment interview
   2. The physical assessment
      1. The peripheral vascular system
      2. The lymphatic system
   3. Variations in assessment findings for the older adult
CHAPTER 31
LECTURE OUTLINE

ASSESSING CLIENTS WITH HEMATOLOGIC, PERIPHERAL VASCULAR, AND LYMPHATIC DISORDERS

I. Anatomy and Physiology

II. Arterial and Venous Networks
   A. Arterial
   B. Veinous
   C. Structure of Blood Vessels
      1. Arteries
      2. Veins

Blood Pressure is the force exerted against the walls of the arteries by the blood as it is pumped from the heart

III. Factors Influencing Blood Pressure
   A. Sympathetic Nervous System
   B. Parasympathetic nervous System
   C. Kidneys
   D. Temperature
   E. Medications
   F. Diet
   G. Age, gender, exertion, weight, emotions
IV. Lymphatic System

A. Organs of the Lymphatic System
   1. Lymph nodes
   2. Spleen
   3. Thymus
   4. Tonsils
   5. Peyer’s patches

V. Assessment of Peripheral Vascular and Lymphatic Function

A. Health Assessment Interview – subjective
   1. Peripheral Vascular System
   2. Lymphatic System

B. Physical Assessment
   1. B/P, palpation of pulse points, inspection of skin for changes
   2. Abnormal Findings
      a. pallor
      b. cyanosis
      c. edema
      d. varicose veins
      e. enlarged lymph nodes
      f. atrophic changes
      g. gangrene
      h. pressure ulcers
Nursing Care of Clients with Peripheral Vascular and Lymphatic Disorders

Introduction:

Clients with disorders of the peripheral vascular and lymphatic systems require nursing care centered on relieving pain, improving the circulation of peripheral blood flow or lymphatic fluid, preventing tissue damage, and promoting healing. The major processes that interfere with the normal flow of peripheral blood and lymphatic fluid include constriction, obstruction, inflammation, and vasospasm.

Objectives:

Upon completion of this chapter, the student will be able to:

A. Theory

1. Relate physiology assessment of the peripheral vascular and lymphatic systems to commonly occurring disorders of these systems.

2. Describe the pathophysiology of commonly occurring peripheral vascular and lymphatic disorders.

3. Identify laboratory and diagnostic tests used to identify and assess peripheral vascular and lymphatic disorders.

4. Explain the nursing implications of the medications prescribed for treating clients with peripheral and lymphatic disorders.

5. Describe the pre- and postoperative care of clients having surgery for the treatment of an aortic aneurysm.

6. Provide client and family teaching that contributes to the promotion and maintenance of health in clients with common peripheral vascular and lymphatic disorders.

7. Use the nursing process as a framework for providing individualized care to clients with peripheral vascular and lymphatic disorders.

B. Clinical - See NURS B85LV and B86LV

Assignment - LeMone-Burke Chapter 33
I. Disorders of Blood Pressure Regulation
   A. The client with hypertension
   B. The client with secondary hypertension
   C. The client with a hypertensive crisis

II. Disorders of the Peripheral Arteries
   A. The client with peripheral arteriosclerosis
   B. The client with arterial thrombus or embolism
   C. The client with Buerger’s disease
   D. The client with Raynaud’s disease

III. Disorders of the Aorta and its Branches
   A. The client with an aneurysm

IV. Disorders of Venous Circulation
   A. The client with thrombophlebitis
   B. The client with chronic venous insufficiency
   C. The client with varicose veins
   D. The client with leg ulcers

IV. Disorders of the Lymphatic System
   A. The client with lymphedema