

Lymphatic System and Immunity

I. Lymphatic System

A. Functions

Fluid recovery

Immunity

B. Structures

Lymph vessels

Lymph nodes

Thymus

Spleen

II. Defense and Immunity

A. 3 lines of defense

Physical & chemical barriers

Nonspecific cellular responses

Inflammation

Macrophages

Complement system

Specific immune responses

Lymphocytes: T-cells B-cells

B. Inflammation

Symptoms: redness, swelling, pain, fever

Outcomes:

Attraction of immune components

Tissue repair

Debris cleanup

Destruction of invading organisms

C. Phagocytes

Macrophages Neutrophils

D. Immunity

Active vs passive

Natural vs artificial

Cell-mediated immunity: T-cells

Antigen presenting cells

Helper T-cells

Cytotoxic T-cells

Humoral immunity: B-cells

Produce antibodies

Memory

Antibody titer following vaccines