

IMMUNOLOGY: INTRODUCTION

GENERAL CONCEPTS

IMMUNITY

IMMUNOLOGY

IMPORTANCE OF THE IMMUNE SYSTEM

WHY IMMUNOLOGY IS COMPLICATED

DEFENDING AGAINST MANY ENEMIES

CONTROL OF A KILLING MACHINE

FUNCTIONAL DIVISIONS OF IMMUNOLOGY

NONSPECIFIC IMMUNITY

SPECIFIC IMMUNITY

HUMORAL IMMUNITY

CELLULAR IMMUNITY

BASIC MECHANISMS: SELF / NONSELF RECOGNITION

DISORDERS: AUTOIMMUNITY

TO LISTEN TO A CLINICAL CASE THAT SHOWS THIS DISORDER OF THE IMMUNE SYSTEM TRY
http://podcast.broward.edu/~sobenauf/Vital%20Signs_%20The%20Trendy%20Error.mp3

DISORDERS: HYPERSENSITIVITY

COMPONENTS OF THE IMMUNE SYSTEM

IN SERUM

ANTIBODIES

COMPLEMENT

LEUKOCYTES (WHITE BLOOD CELLS)

NEUTROPHIL

EOSINOPHIL

BASOPHIL

MONOCYTE & MACROPHAGE

LYMPHOCYTE

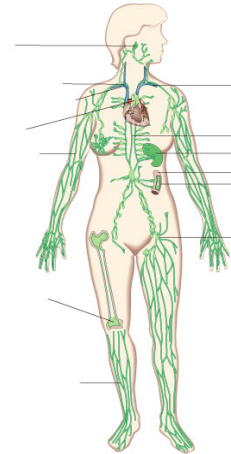
LYMPHOID ORGANS

BONE MARROW

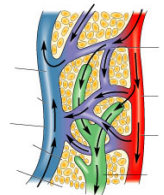
THYMUS

LYMPH NODES

SPLEEN



(a)



(b)

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TO LISTEN TO A CLINICAL CASE THAT DEALS WITH LYMPH NODES CLICK

http://podcast.broward.edu/~sobenauf/Vital%20Signs_%20The%20Truth%20in%20the%20Fibs.mp3

NONSPECIFIC IMMUNITY

ANATOMICAL BARRIERS

SKIN

MUCUS

NORMAL FLORA

STOMACH ACID

LYSOZYME

BARRIERS IN THE RESPIRATORY TRACT

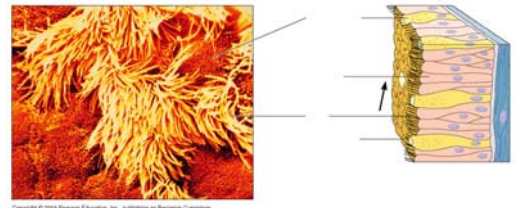
NORMAL FLORA

NASAL HAIRS

TURBINATE BAFFLES

MUCOCILIARY ESCALATOR

ALVEOLAR MACROPHAGES



COUGHING & SNEEZING

BARRIERS IN THE DIGESTIVE TRACT
STOMACH ACID & ENZYMES

BILE

NORMAL FLORA

MUCUS LINING

PERISTALSIS

BARRIERS IN THE URINARY TRACT
URINARY pH

URINE PRODUCTION

BARRIERS IN THE EYE
LYSOZYME

TEARS

BARRIERS IN THE ORAL CAVITY
LYSOZYME

SALIVARY ENZYMES

SALIVA

TO LISTEN TO A CASE STUDY THAT DEALS WITH PROBLEMS THAT CAN HAPPEN WHEN YOU ARE MISSING ONE OF YOUR BARRIERS CLICK http://podcast.broward.edu/~sobenauf/Vital%20Signs_%20No%20Protection.mp3

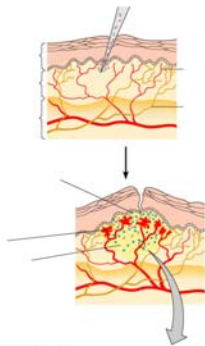
FOR AN OVERVIEW OF HOW YOUR NORMAL FLORA PROTECT YOU CLICK <http://webhome.broward.edu/~sobenauf/mcb2013/podcasts/Epidemio%20-%20Probiotics.mp3>

MECHANISMS

INFLAMMATION
WHAT IS IT?

WHAT ARE THE SIGNS?

THE EVENTS
INCREASED BLOOD SUPPLY / VASODILATION

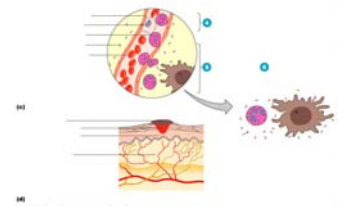


INCREASED VASCULAR PERMEABILITY

PHAGOCYTE ACCUMULATION – CHEMOTAXIS

CONNECTIVE TISSUE

PUS



PHAGOCYTOSIS
PHAGOCYTES

PROCESS

INTERFERON
PRODUCTION

MECHANISMS

FEVER
