

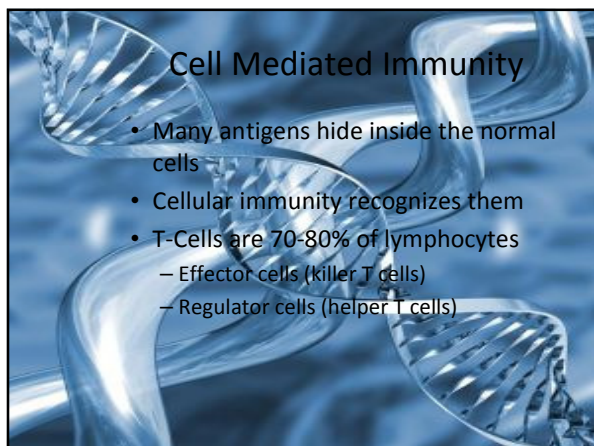
Human Leukocyte Antigens

- **Unique universal product code**
- **Personal cellular finger prints**
 - 40 major HLA(s)
 - Constant contact with other cells
 - Each encounter determines whether the cell is self
 - If not self the immune system takes action
 - Neutralize
 - Destroy
 - Eliminate Invader



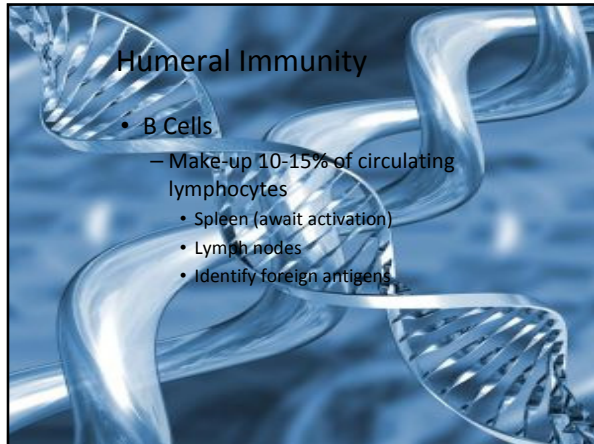
Organization of the Immune System

- Some immune cells mature in the bone marrow then release to circulation
- Other immune cells leave the bone marrow and mature in different body sites



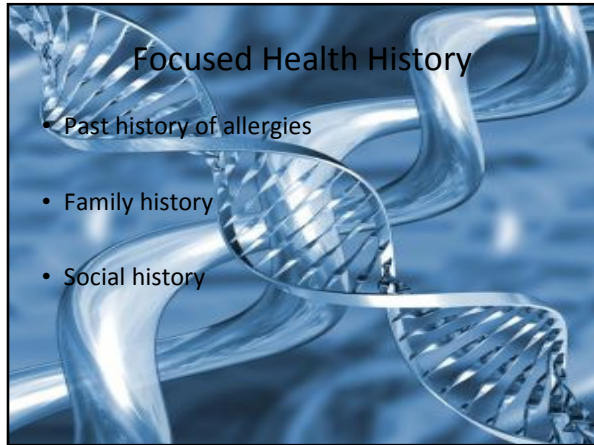
Cell Mediated Immunity

- Many antigens hide inside the normal cells
- Cellular immunity recognizes them
- T-Cells are 70-80% of lymphocytes
 - Effector cells (killer T cells)
 - Regulator cells (helper T cells)



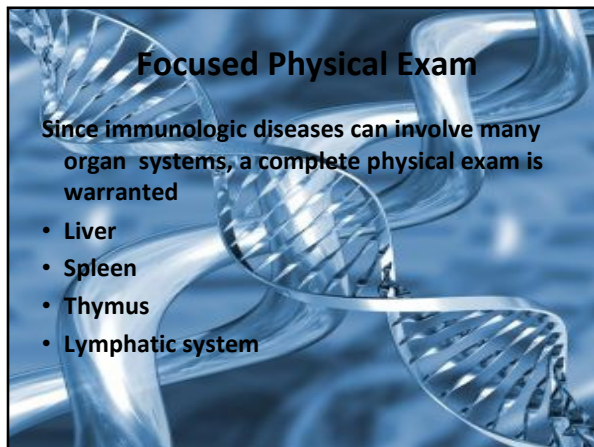
Humeral Immunity

- B Cells
 - Make-up 10-15% of circulating lymphocytes
 - Spleen (await activation)
 - Lymph nodes
 - Identify foreign antigens



Focused Health History

- Past history of allergies
- Family history
- Social history

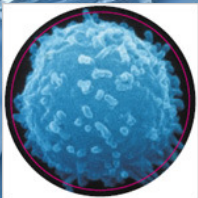


Focused Physical Exam

Since immunologic diseases can involve many organ systems, a complete physical exam is warranted

- Liver
- Spleen
- Thymus
- Lymphatic system

Physiological Changes in Aging

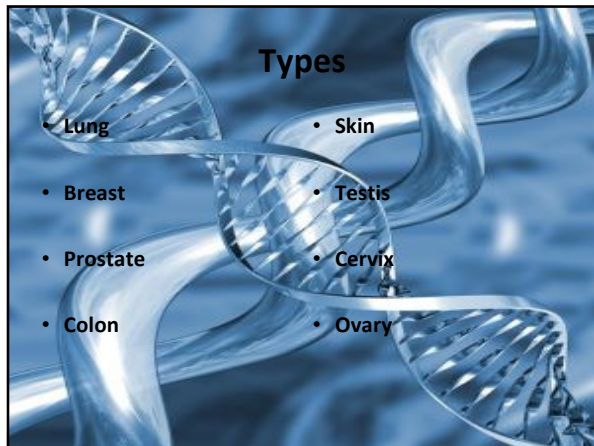


- With age, white cells or lymphocytes become less active, making the body more vulnerable to bacteria, viruses and other pathogens.

Diagnostics

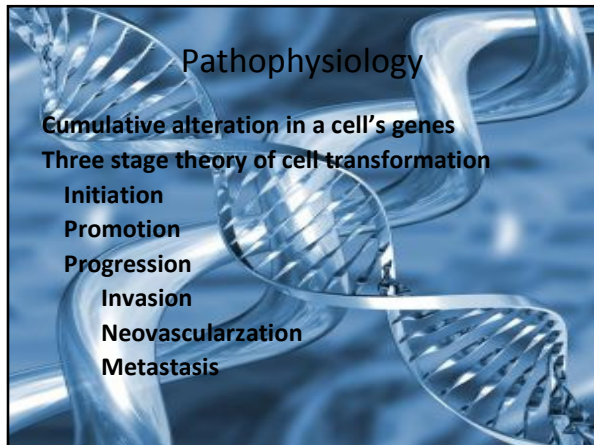
- Carcinoembryonic antigen test (CEA)
- C reactive Protein (CRP)
- Calcium
- Red blood cells
- Hematocrit and Hemoglobin
- Estrogen
- BUN
- ALT/AST
- White blood cells

Neoplasms



Types

- Lung
- Breast
- Prostate
- Colon
- Skin
- Testis
- Cervix
- Ovary



Pathophysiology

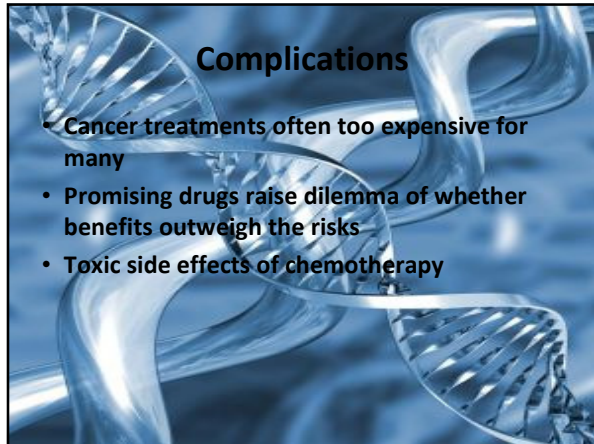
Cumulative alteration in a cell's genes
Three stage theory of cell transformation

- Initiation
- Promotion
- Progression
- Invasion
- Neovascularization
- Metastasis



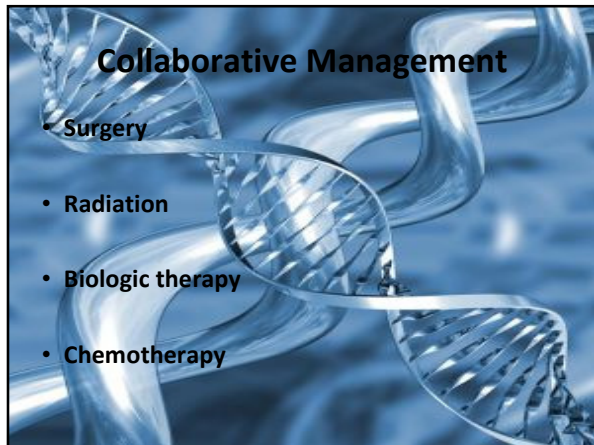
Clinical Manifestations

- Change in bowel and bladder habits
- A sore that does not heal
- Unusual bleeding or discharge
- Thickening or a lump in the breast or elsewhere
- Indigestion or difficulty in swallowing
- Obvious change in a wart or mole
- Nagging cough or hoarseness



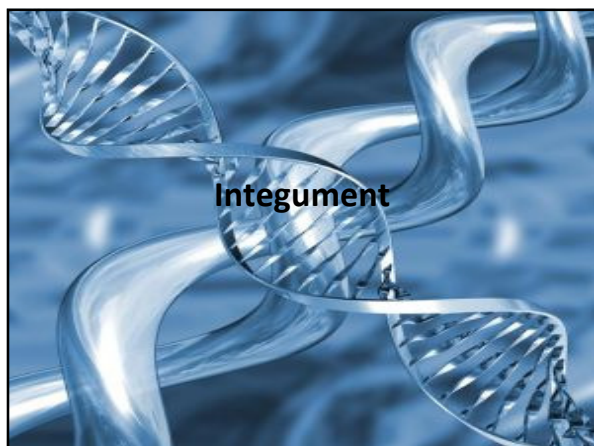
Complications

- Cancer treatments often too expensive for many
- Promising drugs raise dilemma of whether benefits outweigh the risks
- Toxic side effects of chemotherapy

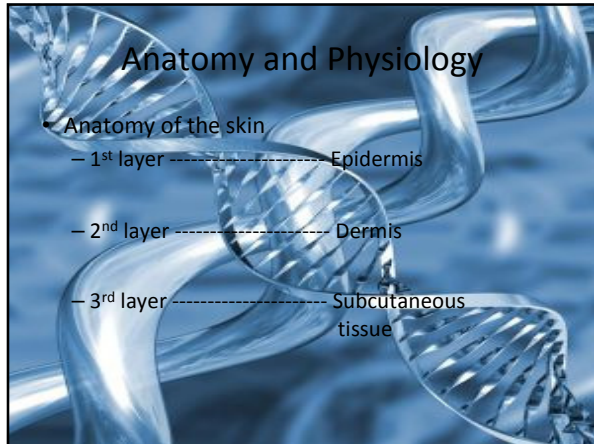


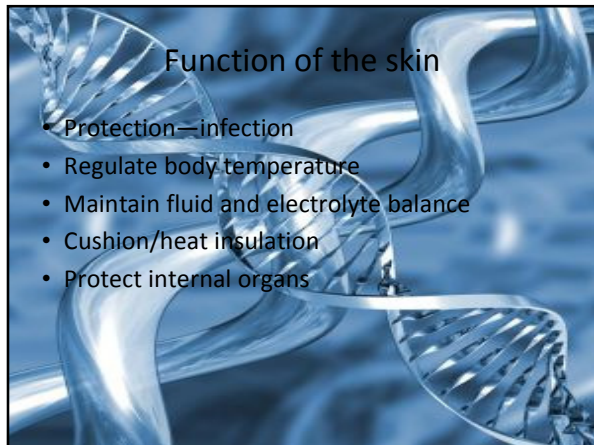
Collaborative Management

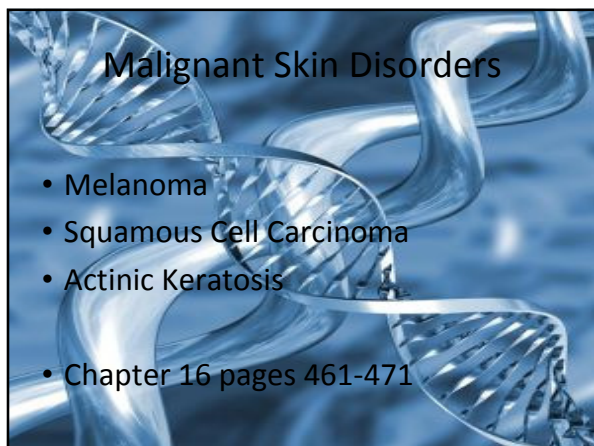
- Surgery
- Radiation
- Biologic therapy
- Chemotherapy



Integument



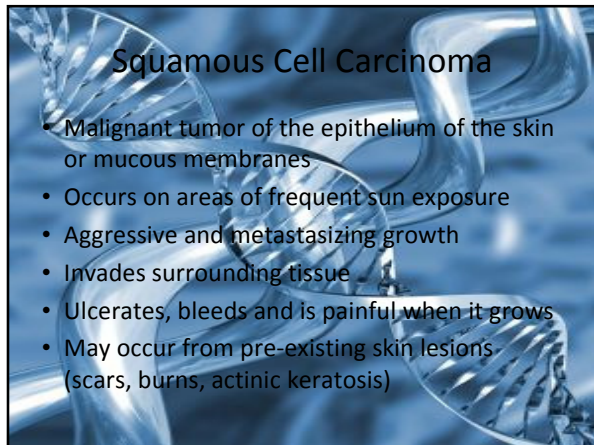






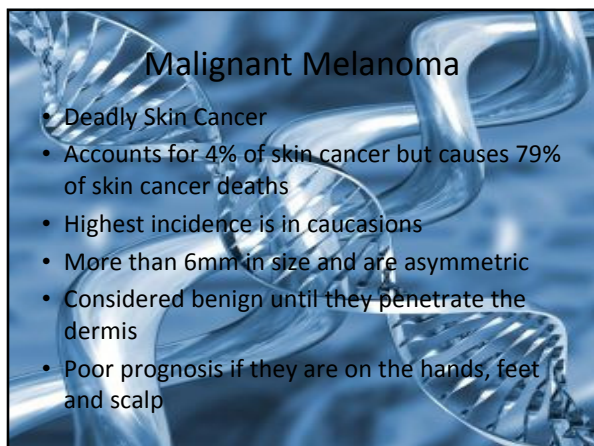
Actinic Keratosis

- Also called solar keratosis
- Epidermal skin lesion
- Directly related to sun exposure
- Highest prevalence in fair skin, rare in dark skin people
- Classified as premalignant but may progress to squamous cell
- Erythematous rough macules



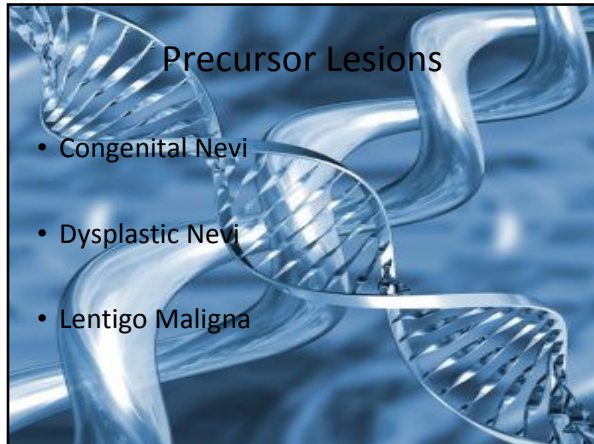
Squamous Cell Carcinoma

- Malignant tumor of the epithelium of the skin or mucous membranes
- Occurs on areas of frequent sun exposure
- Aggressive and metastasizing growth
- Invades surrounding tissue
- Ulcerates, bleeds and is painful when it grows
- May occur from pre-existing skin lesions (scars, burns, actinic keratosis)



Malignant Melanoma

- Deadly Skin Cancer
- Accounts for 4% of skin cancer but causes 79% of skin cancer deaths
- Highest incidence is in caucasians
- More than 6mm in size and are asymmetric
- Considered benign until they penetrate the dermis
- Poor prognosis if they are on the hands, feet and scalp



Precursor Lesions

- Congenital Nevi
- Dysplastic Nevi
- Lentigo Maligna



Classification of Melanoma

- Superficial Spreading Melanoma: most common; flat, scaly and crusty come from nevi
- Lentigo Melanoma: comes from precursor lesion, appear in shades of brown
- Nodular Melanoma: may look like a blood blister, arise in unaffected skin
- Acral Lentiginous Melanoma: more common in dark skin, found on palms of hands and soles of feet. Women and men in their 50-60's



The ABCD Rule

- A = asymmetry (one half of the nevus does not match the other)
- B = border irregularity (edges are ragged, blurred, or notched)
- C = color variation or dark black color
- D = diameter greater than 6mm (size of a pencil eraser)

Risk Factors for Non-Melanoma

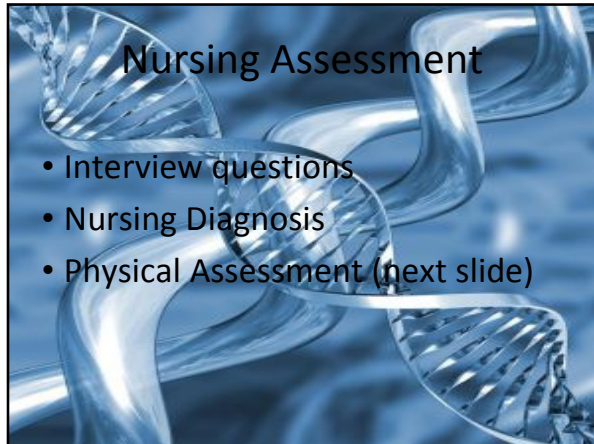
- Fair skin, blue or green eyes, blond or red hair
- Family history
- Sun exposure or UV radiation (natural or artificial)
- Radiation treatment
- Occupational exposures to coal, tar, arsenic or radium
- Severe sunburns as a child

Risk factors for Malignant Melanoma

- High number of moles or large moles
- Fair skin, freckles, blond hair and blue eyes
- Family history (close relative)
- Exposure to sun or UV radiation (tanning beds)
- Over 50
- Past history of melanoma

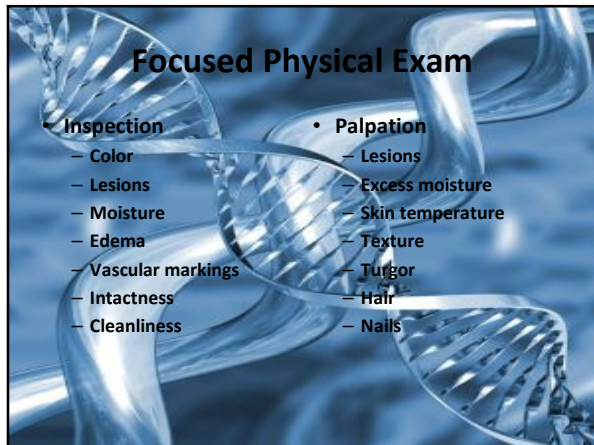
Treatment

Non-malignant Melanoma	Malignant Melanoma
<ul style="list-style-type: none">• Surgical excision• Mohs surgery• Curettage and Electrodesiccation• Radiation therapy	<ul style="list-style-type: none">• Surgery• Immunotherapy• Radiation therapy• New methods of treatment



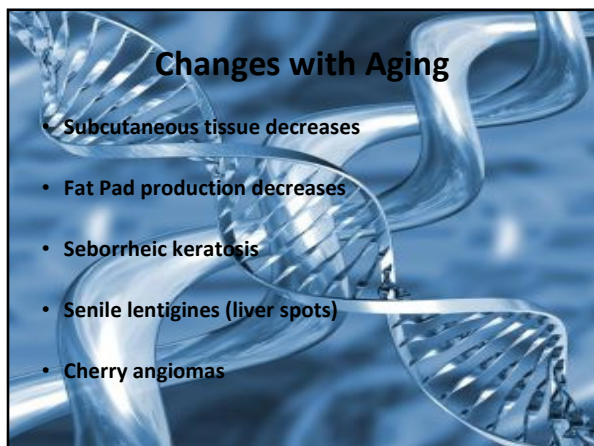
Nursing Assessment

- Interview questions
- Nursing Diagnosis
- Physical Assessment (next slide)



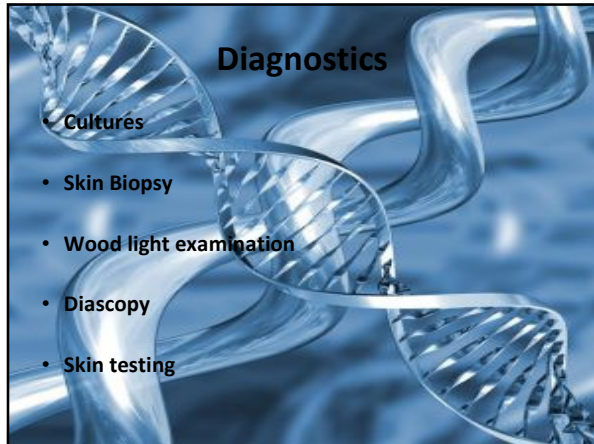
Focused Physical Exam

<ul style="list-style-type: none">• Inspection<ul style="list-style-type: none">– Color– Lesions– Moisture– Edema– Vascular markings– Intactness– Cleanliness	<ul style="list-style-type: none">• Palpation<ul style="list-style-type: none">– Lesions– Excess moisture– Skin temperature– Texture– Turgor– Hair– Nails
---	---



Changes with Aging

- Subcutaneous tissue decreases
- Fat Pad production decreases
- Seborrheic keratosis
- Senile lentiginos (liver spots)
- Cherry angiomas



Diagnostics

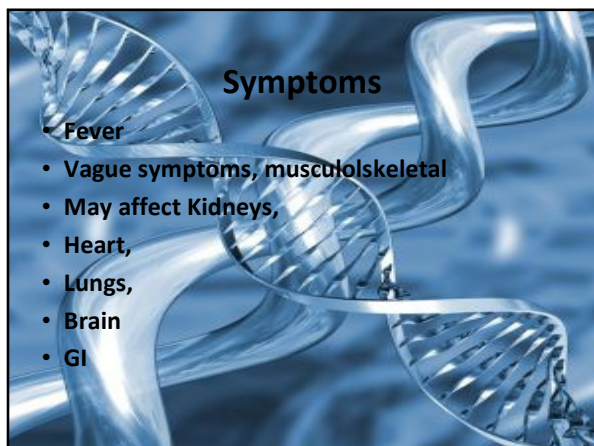
- Cultures
- Skin Biopsy
- Wood light examination
- Diascopy
- Skin testing



SLE- Systemic Lupus Erythematosus

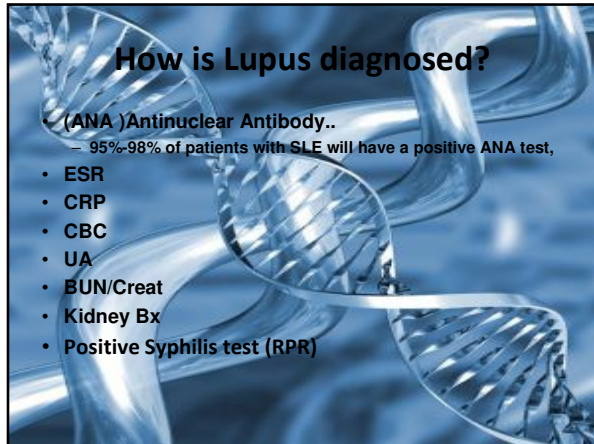


© Copyright 1997 Mayo Foundation for Medical Education and Research



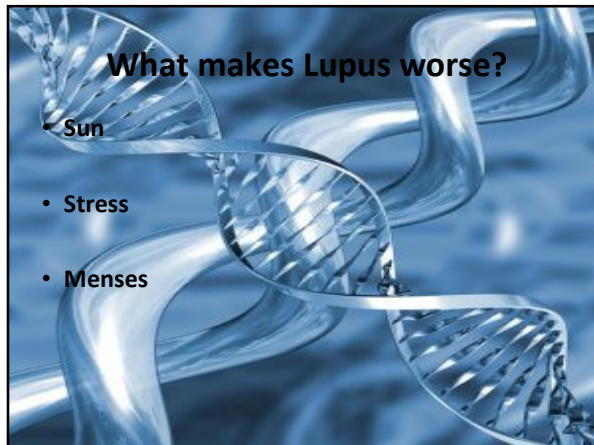
Symptoms

- Fever
- Vague symptoms, musculoskeletal
- May affect Kidneys,
- Heart,
- Lungs,
- Brain
- GI



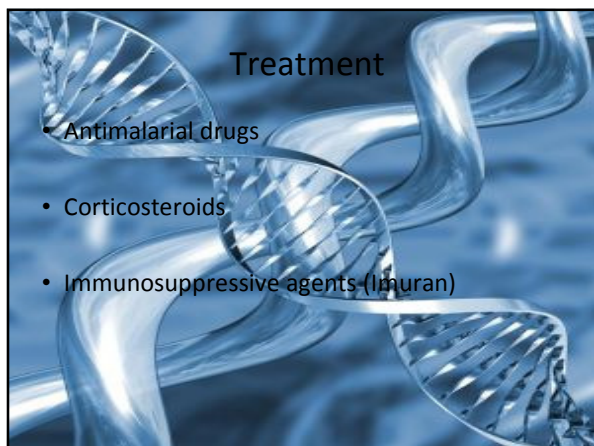
How is Lupus diagnosed?

- (ANA)Antinuclear Antibody..
 - 95%-98% of patients with SLE will have a positive ANA test,
- ESR
- CRP
- CBC
- UA
- BUN/Creat
- Kidney Bx
- Positive Syphilis test (RPR)



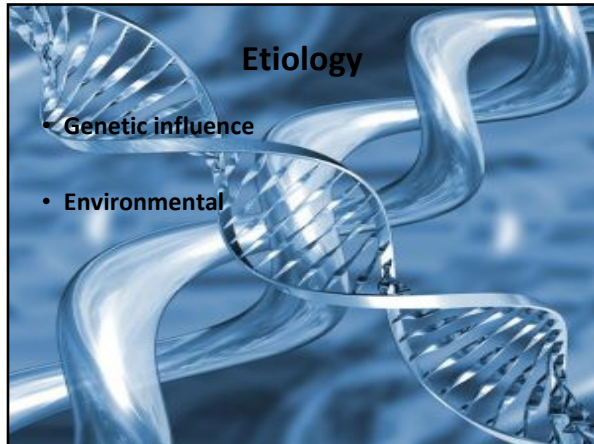
What makes Lupus worse?

- Sun
- Stress
- Menses



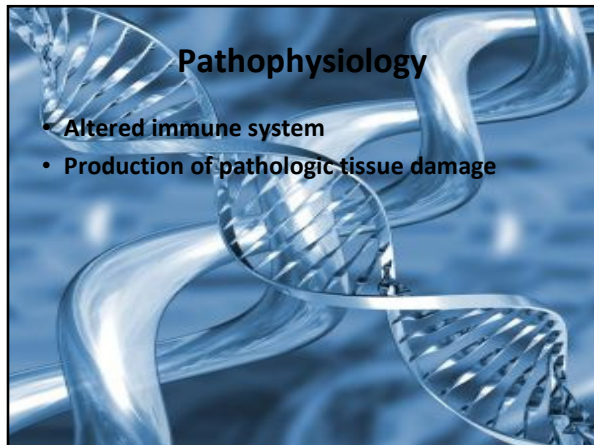
Treatment

- Antimalarial drugs
- Corticosteroids
- Immunosuppressive agents (Imuran)



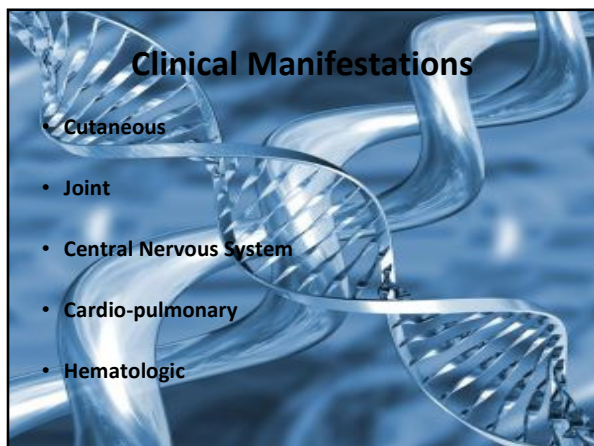
Etiology

- Genetic influence
- Environmental



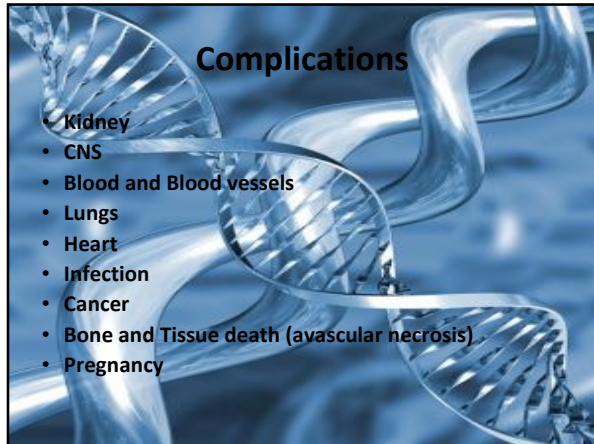
Pathophysiology

- Altered immune system
- Production of pathologic tissue damage



Clinical Manifestations

- Cutaneous
- Joint
- Central Nervous System
- Cardio-pulmonary
- Hematologic



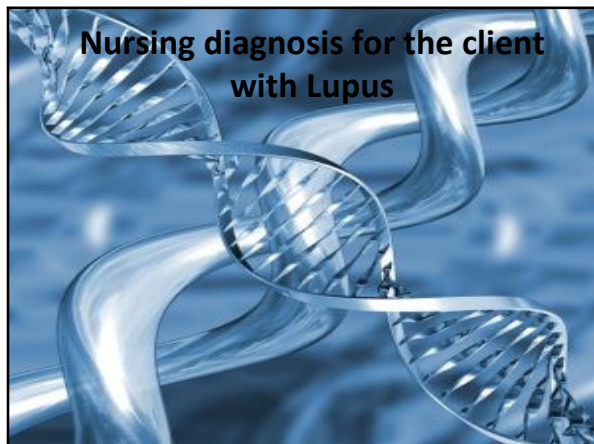
Complications

- Kidney
- CNS
- Blood and Blood vessels
- Lungs
- Heart
- Infection
- Cancer
- Bone and Tissue death (avascular necrosis)
- Pregnancy



Collaborative Management

- Physical therapy
- Dietician
- Pharmacy
- Dialysis



Nursing diagnosis for the client with Lupus
