

Infection, and Alterations in Immunity and Inflammation

1. Define allergy, autoimmunity, and alloimmunity.
2. Compare and contrast the four hypersensitivities (I, II, III, and IV).
3. Describe the likely causes of autoimmune disease: exposure to a previously sequestered antigen, development of a neoantigen (tumor antigen), complications of an infectious disease, and alteration of suppressor T cells.
4. Describe the pathophysiology of Systemic Lupus Erythematosus (SLE): clinical signs and symptoms, complications, and laboratory testing.
5. Characterize alloimmune graft rejection and categorize a graft rejection as hyperacute, acute, or chronic based on the immune response.
6. Describe the relationships between humans and infectious agents: symbiosis, commensalism, mutualism, and parasitism.
7. Describe the mechanisms of infection and cellular injury by bacteria, viruses, and fungi.
8. Characterize examples of congenital or primary immunodeficiencies: DiGeorge syndrome, Bruton agammaglobulinemia syndrome, Wiskott-Aldrich syndrome, and selective IgA deficiency.
9. Describe the reasons a patient may develop graft-versus-host (GVH) disease.
10. Cite examples of acquired or secondary immune deficiencies.
11. Describe the immune deficiency disorder, AIDS: signs, symptoms, pathophysiology, and laboratory testing.
12. Describe some therapies for immune deficiencies: gamma globulin administration, fresh-frozen plasma administration, bone marrow transplants, and gene therapy.