

## Allergic disorder

- hyperimmune response to weak antigens that are usually harmless
- characterized by entry of allergen into body & the intensity of response

### types:

- ingestants: food, drugs
- inhalants: house dust, mites
- contactants: latex
- injectants: drugs, bee venom

## anaphylaxis:

- vasodilation
- ↑ capillary permeability

### S/S of anaphylaxis: (vaso

- angioneurotic edema
- hypotension
- bronchoconstriction
- wheezing
- tachycardia

→ first exposure to an allergen doesn't produce symptoms

- **sensitization**: cellular & chemical events occur after a second or subsequent exposure to allergen

↳ once occurs 1 of 4 types of hypersens response occurs (immediate or delayed)

immediate hypersensitivity response

delayed hypersensitivity response

- **Type I: atopic / anaphylactic**

→ mediated by IgE antibodies (most severe)

- **Type II: cytotoxic**

→ mediated by IgM / IgG

- **Type III: immune complex**

→ mediated by IgG

- **Type IV: delayed**

→ antigens are initially phagocytized by macrophages; sensitized T cells then produce cytokines that cause inflammatory reaction

→ several hours or days

- **IgE** - most likely involved in allergic reactions! \***basophils**

} occur within mins

} within hrs

## AUTOIMMUNE DISORDERS

- killer T cells & autoantibodies attack or destroy natural cells
- considered autoimmune when they are characterized by unrelenting progressive tissue damage w/ no any verifiable etiology

### ex:

- hemolytic anemia
- myasthenia gravis
- multiple sclerosis
- ulcerative colitis

### cause:

◦ **tissue injury theory**: infection, trauma, or introduction to a drug that integrates itself into membranes of host cells

◦ ex: strep infections & rheumatic heart disease

◦ genetically predisposed to autoimmune disorders

◦ **S/S**: depend on tissues & organs affected

◦ characteristic of acute inflammatory response

◦ fever, malaise, fatigue, weight loss

◦ inflammatory symptoms: develop as antibodies attack normal tissue mistakenly as non self

## Chronic fatigue syndrome

- fatigue w/ no identifiable cause
- worsens with physical activity & doesn't improve w/ rest
- deficiency in ATP
- **S/S**:
  - flu-like / URI
  - muscle pain
  - headache