Topics

- Type I hypersensitivity
- Type II hypersensitivity

Type I hypersensitivity

- Immediate IgE – mediated
- Localized anaphylaxis
- General anaphylaxis
- Immunotherapy

Generalized anaphylaxis

- Antigens become widespread
- Shock (reduced blood pressure)
- Ex. Bee stings, peanuts and penicillins

Figure 18.1 - Immediate IgE – mediated

Figure 18.2 Localized anaphylaxis

Figure 18.3 Immunotherapy
Type II hypersensitivity

- Cytotoxic
- Transfusion reactions
- Hemolytic diseases

Cytotoxic

- Complement lysis
- Antibody – dependent cellular cytotoxicity (ADCC)

Table 18.2 - Transfusion reactions

<table>
<thead>
<tr>
<th>Blood Type</th>
<th>Antigen Present on Erythrocyte Membrane</th>
<th>Antibody in Plasma</th>
<th>Incidence of Type in United States</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>A</td>
<td>Anti-B</td>
<td>43%</td>
</tr>
<tr>
<td>B</td>
<td>B</td>
<td>Anti-A</td>
<td>11%</td>
</tr>
<tr>
<td>AB</td>
<td>A and B</td>
<td>Neither</td>
<td>4%</td>
</tr>
<tr>
<td>O</td>
<td>Neither</td>
<td>Anti-A and anti-B</td>
<td>4%</td>
</tr>
</tbody>
</table>

Figure 18.4 Hemolytic disease