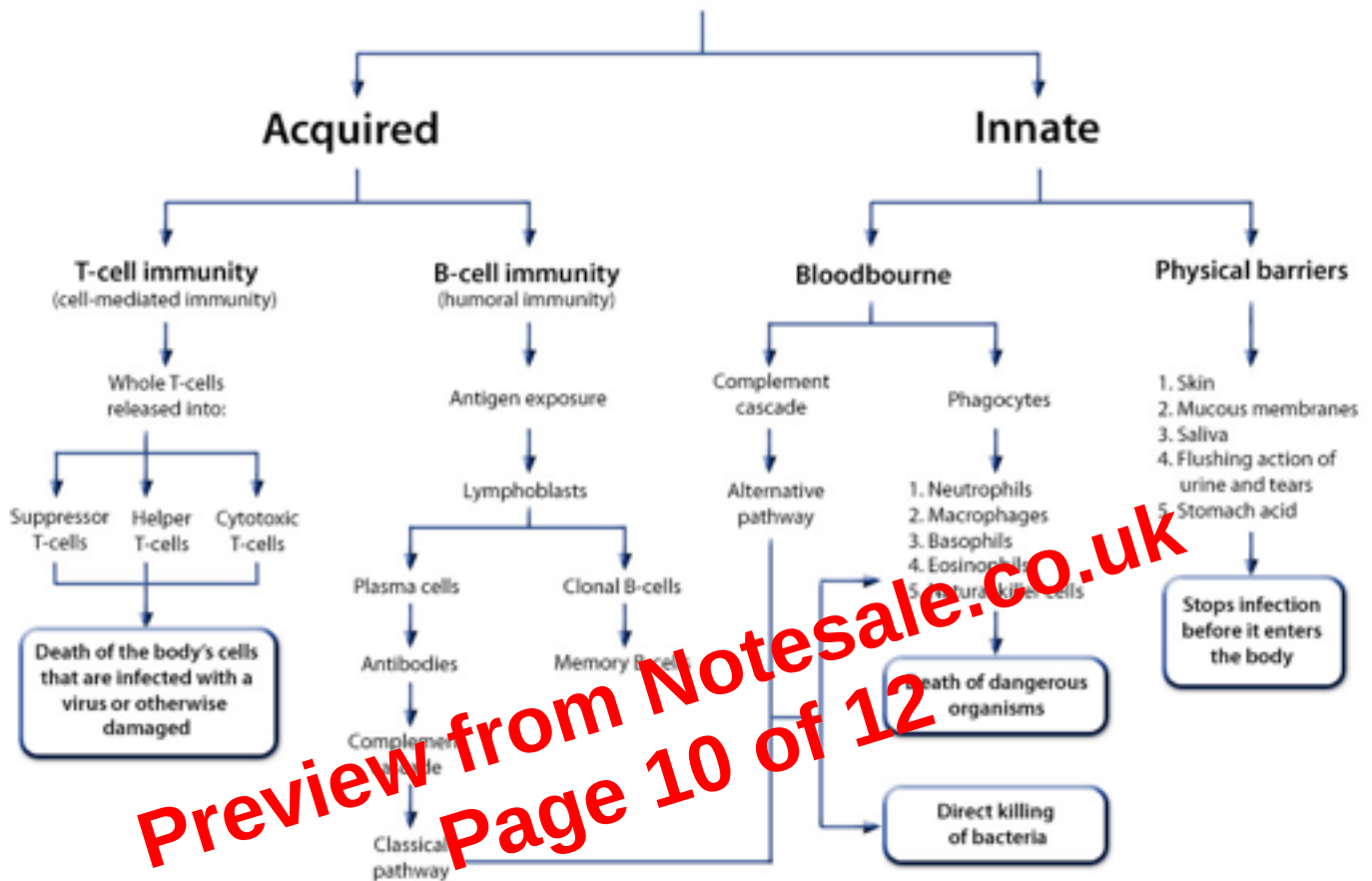


Chapter 4: Antigens + Antibodies

- **Antibody-antigen binding site**
 - specificity of antibody recognition is exact; bond may as well be covalent
- **receptor for B-cell is antibody (immunoglobulin)**
 - B-cells can recognize soluble antigens (T-cells cannot)
- **B-cells mostly recognize protein**, one antibody only recognize a single epitope
- **receptor for T-cell is T-cell receptor (need MHC)**
- **Epitope**: structure on antigen that is recognized by antibody; has many turns, B-cell favors carboxy domain (T-cell favors amino domain)
 - outside is hydrophilic
- **protein must be in a specific orientation to be recognized**
- **Immunogenicity**: ability to induce an immune response (B-cells + T-cells)
- **Antigenicity**: ability to combine with final products of an immune response
 - Experiment: Hen egg lysosome
 - make synthetic loop peptide, don't allow disulfide bond in open loop so **anti-body will not recognize it**
 - **antibodies have to encounter those regions in tact to recognize epitope**
- B-cells initially carry IgM and IgD, but will class switch if activated by a cytokine
- **IgM = primary immune responses**
- **IgG = secondary immune responses**

Immune system



Virtualmedicalcentre.com®