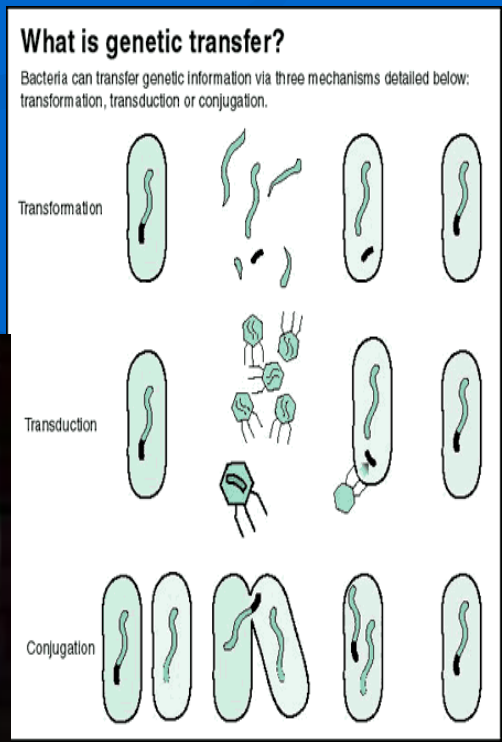
Stages of the Herd Treatment

- Correct diagnosis of the problem
- A review of treatment options
- Starting to treatment
- Ex-post evaluation



Disinfectants and Disinfection

Effective factors on the disinfection

- Disinfectant related causes
  - Density
  - Chemical structure
- **Microorganism related causes**
  - Characteristic of microorganisim
  - Concentration of microorganisim

Disinfectants and Disinfection

- **Other causes**
  - Time
  - Tempareture
  - pH
  - Organic matters
  - Osmotic pressure
  - Surface tension
  - oligodynamic effect
  - Chemical antagonism
  - In-direct contact
  - Using technique

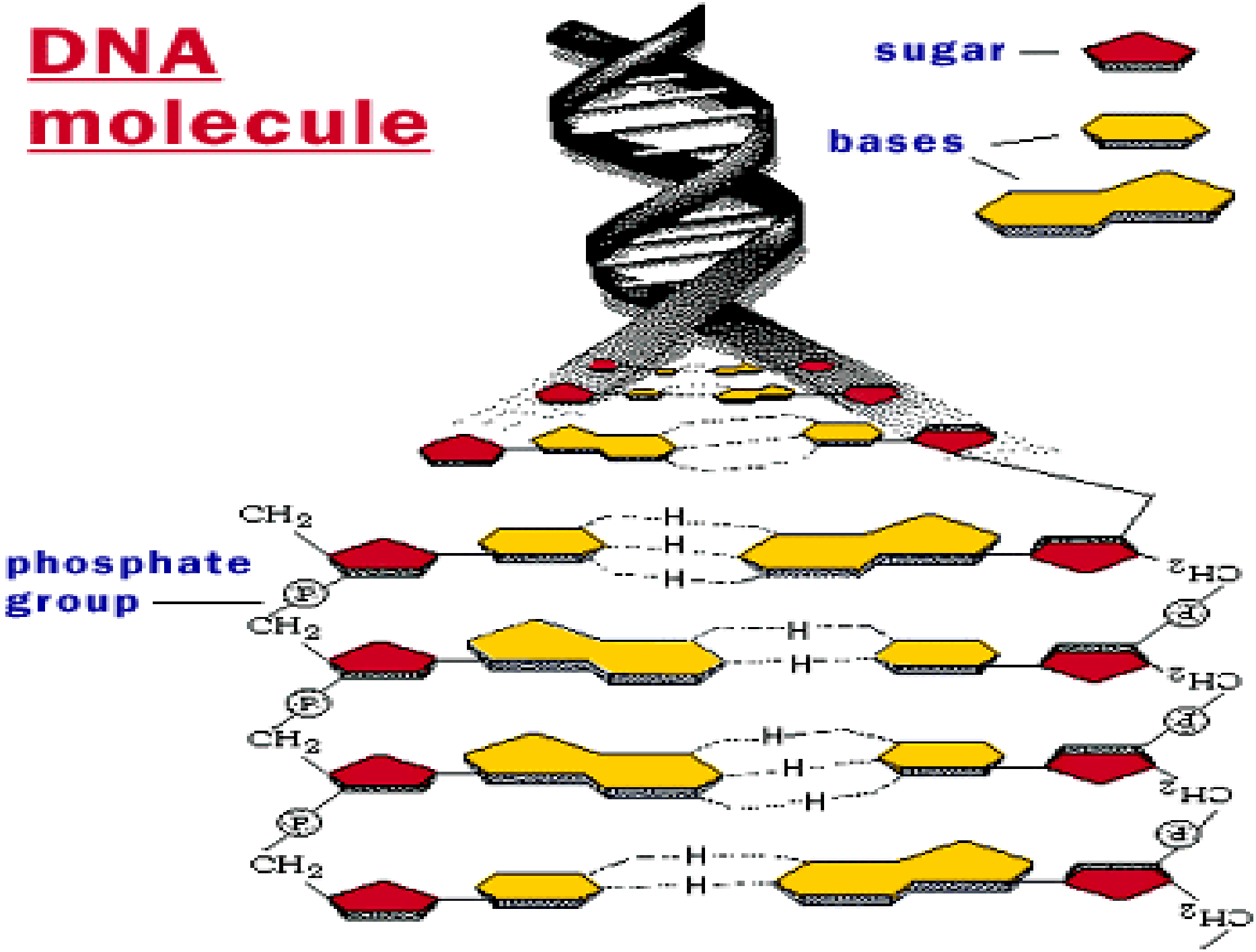
Disinfectants and Disinfection

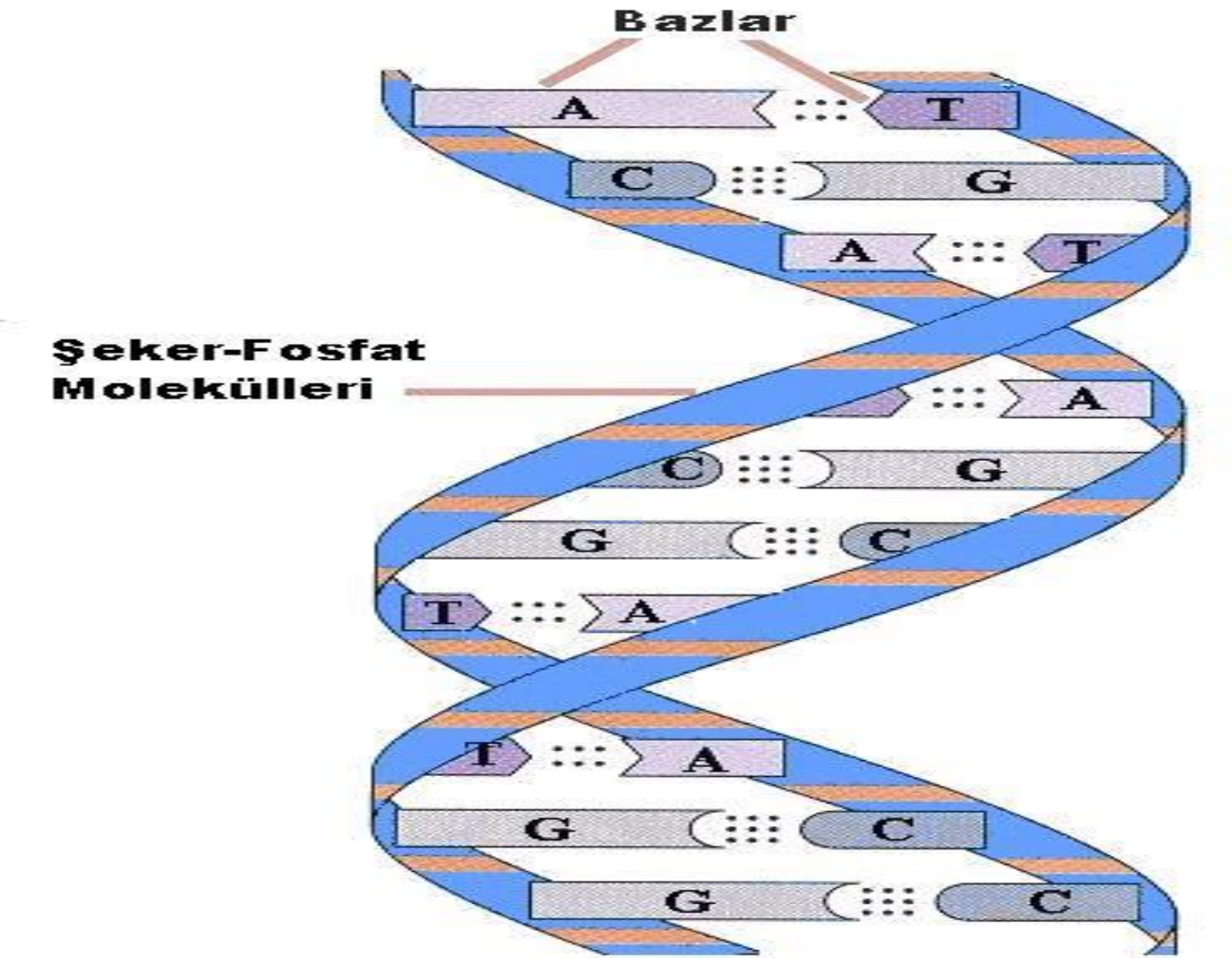
- **Affecting to cell membrane function**
  - Phenol, synthetic detergents, ethyl alcohol
- **Denature to proteins**
  - Acids, alkalis
- **Affecting to enzyme activity**
  - Heavy metals, salts, oxidizing agents, chlorides, iodine compounds, aldehydes
- **Affecting to nukleic acid**
  - Stains

NUCLEIC ACIDS

- DNA and RNA (m RNA, r RNA, t RNA)
- Pyrimidine ve Purine Bases
- Pentose sugars (Deoksiriboz- Riboz)
- Phosphate Molecules
- DNA: Double-stranded, Deoksiribosa, Tymine(A-T-G-C)
- RNA: Single-stranded, Ribose, Urasil, (A-U-G-C)
- Semikonservatif replication

DNA molecule





DNA Çift Sarmalı

VARIATION

- 1) Modification
- A) Morphological
- Colony
- Capsule
- Flagella, Fimbriae
- Spore
- Shape

- B) Culture
- C) Physical and Biochemical
- Staining
- Pigment
- Enzymatic
- Attenuation

MUTATION (GENOTYPIC)

- Deletion : removing a base pair
- Insertion : insertion of one base pair
- Taking a base pair instead of an other (Transitional mutation)
- The establishment of special ties between Pyrimidine Bases (C-T) DIMERISATION

MUTAGENIC SUBSTANCES

- PHYSICAL : Heat , UV, X rays, Ultrasonic Vibrations
- CHEMICAL : Nitrous acid, Hydroxylamine, Alkyl substances , Base analogs
- Acridines

MUTANT SPECIES

- Resistance Mutants
- Nutritional Mutants
- Fermentation Mutants
- Pigmentation Mutants
- Antigenic Mutants