

Review

- particular amino acid sequence of a protein determines how it folds into a particular shape
- Shape determines many of protein features, such as which molecules it will interact with.
 - same order of amino acids always makes same shape
- When a protein's shape is deformed, the protein loses its ability to function.

- genetic diseases → wrong DNA code

→ Enzymes are proteins that initiate and speed up/slow down chemical regulations.

- controls rate of chemical reaction
- too slow → dead.
- too fast → dead.

Lactase Enzyme breaks down lactose into Glucose

- Fit together perfectly

- Lactose intolerant → sickness from milk

- lack of enzyme to break down lactose

- to 70% milk is poison

- dependant on cultural background

- African Americans → Africans in general 100% intolerant ^{780%}

- determined by area of world/climate/ability to grow in different seasons - ancestors → genetic mutation = ability to digest

- sheep #1 milked animal in the world.

- Hispanics, Asians → 70% - 75% inability to process milk.

→ milk = fat = calories

- milk calcium worst way to resupply the body w/ calcium.

- Nucleic Acids

- store info on how to build + run a body

- owners manual

- controlled by DNA + RNA

- both play central roles in directing protein production in organisms