

## Amino Acids and Proteins In Our Foods

The four main nutrients found in foods are \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_.

List 3 functions proteins are involved in:

- 1) \_\_\_\_\_.
- 2) \_\_\_\_\_.
- 3) \_\_\_\_\_.

Proteins are built up of smaller units called \_\_\_\_\_.

The sequence of the amino acids determines the \_\_\_\_\_ of the protein.

Sources of amino acids/proteins include: (circle the correct choices)

fruits                      vegetables                      nuts                      fish  
eggs                      butter                      candy                      protein bars  
rice                      water                      soda                      peanut butter

What can happen if enough amino acids/proteins are not consumed?

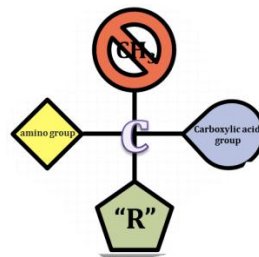
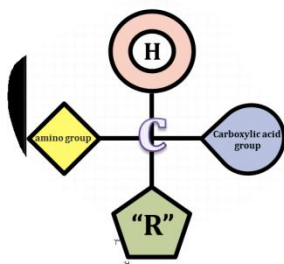
- 1) \_\_\_\_\_.
- 2) \_\_\_\_\_.
- 3) \_\_\_\_\_.
- 4) \_\_\_\_\_.
- 5) \_\_\_\_\_.

Every amino acid contains an \_\_\_\_\_ group, or  $\text{NH}_2$ , a \_\_\_\_\_ group, or  $\text{CO}_2\text{H}$ , and a hydrogen.

The amino acids differ in their "R" groups or \_\_\_\_\_.

The unnatural amino acid I work with substitutes a \_\_\_\_\_ group for the hydrogen atom.

Identify the natural amino acid. Identify the unnatural amino acid.



The test we are using in lab is called the **Buuret test**. In this test, foods with proteins turn the solution \_\_\_\_\_. Foods without proteins turn the solution color \_\_\_\_\_.

We will be using a 2M solution of sodium Hydroxide (NaOH). How would you prepare this solution?

What are the safety hazards in this lab?