We have been taught since our early school days that Health is our real Wealth. But wait, do we take this statement by heart? I doubt. At some point in time we all realize that we become little fatty, obese, underweight. According to WHO more than 2.8 million people died because of obesity every year in the world. All these death somehow relates to the unhealthy choices of food we make, consciously or unconsciously. We often heard the term Protein, Carbohydrate, Fat. But we didn't pay much attention to it. If we had to take control of our physical state, we must understand the importance of these three important nutrients and their functions in our body.

Fat, Carbohydrate and Protein are 3 nutrients that fall into the category of macro-nutrients. Because our body needs it more, these three vital nutrients have been given a prefix macro.

Generally, people think that fat is heavily responsible for making them obese and gain weight. Not only fat contributes to obesity and weight gain, but it is also necessary for our body for various important functions such as to keep our body warm and help maintain the level of fat-soluble vitamins.

Now let's talk a little bit about them individually.

Fat: Fat is a form of lipids that's present in our body. It is made of up various groups of fatty acids. Some fatty acids are synthesized by our body and some need to be supplemented from the food we eat.

Fat can be further divided into 2 categories namely: Visible Fat and Invisible Fat.

Oils, butter, and ghees, etc fall in the Visible fat category while foods like milk, eggs, meat, and liver fall in the category of invisible fat.

When the fat is broken down through metabolism some of it is used to supply energy and the rest is stored as fat in the adipose tissue(tissue made up of fat itself in the various parts of the body) for future use.

So enough now, let's talk about some major function of Fat in our body:

1. Food fat is a good source of essential fatty acids(EFA) and fat-soluble vitamins such as (A, E, and K). Hence fat helps in the transport and absorption of fat-soluble vitamins in our body.

2. Fat helps in carrying nutrient materials across the cell membranes.

3. Vital organs of our body are protected through the web-like padding of adipose tissues.

4. A layer beneath the skin helps conserve body heat and regulate body temperature as fat is a poor conductor of heat.

5. As fat is digested slowly in our body, it results in a feeling of satisfaction.

Recommended Daily Allowances (RDA) for fat: 20 gm/day for adults and 25 gm/day for children.

Carbohydrate: It is one of the most commonly used macro-nutrient especially in the diet we follow in Nepal and India. We can't imagine our meal without rice, potato,sukka roti/chapati, and more which are loaded with carbohydrates. Carbohydrate is readily available and also economic, that might be the primary reason why it is being used so widely.

In our diet 65-70% of the energy comes from carbohydrates. It is packaged and exported to different places easily due to it's longer shelf-life in dry storage.

Here are some important functions of carbohydrate:

1. The primary source of energy for physical activity and also the work of body cells.

2. Carbohydrate acts as a reserve fuel supply in the form of glycogen stored in muscles and liver.

The glycogen level in the body must be maintained above 300 gm with the frequent supply of

the carbohydrate to prevent the breakdown of fat and protein tissues.

3. Carbohydrates aid the absorption of calcium and phosphorous thus helping bone growth and maintenance.

4. A low carbs diet may cause involuntary dehydration.

5. Dietary Fiber helps the smooth movement of food waste through the digestive tract and wastes are comfortably eliminated.

RDAs for Carbohydrate hasn't been set exactly as it's a primary nutrient easily available in our diet.

Protein: Protein is the second most abundant component in our body which accounts for the one-sixth of our live body weight.

Like carbohydrate and fat, it also contains carbon, hydrogen, and oxygen and in addition to that it contains nitrogen and this is what distinguishes it from the two.

All the proteins are built from Amino Acid which combines using peptide bond. Our body with 60% water and 19% fat is held together by only 17% of protein and 4% of minerals.

Some important functions of proteins are:

1. Body Building or building new tissues requires amino acids which are provided through protein.

2. The regulatory function of protein: Haemoglobin, a protein and iron complex, ensures the smooth running of the respiratory cycle by being the vital oxygen carrier in the RBC.

3. Some proteins are also used in synthesizing enzymes, hormones, and antibodies.

4. Protein also helps in transporting nutrients across cell membranes.

5. Part of the Body's need for energy(about 6-12%) is supplied by protein.

RDAs for Protein is 1g/kg of body weight.

We get to know about some important functions of all three kinds of macro-nutrient now let's see what are the foods that might help us hack our healthy lifestyle by providing all the nutrients mentioned above. Here I will list the foods and mention them according to their content as high in fat, carbs, or protein.

How to read and implement this table in real life?

Reading the label of foods and their nutrient is a good thing. Rather than going for numbers I feel it comfortable to read what the food contains the most and what less. Although it sounds vague, that's a pretty good way to drive yourself to a healthier lifestyle without knowing much details of food and nutrition naturally.

In the table above I have mentioned a higher amount of nutrient the particular food contains in (rich in) column and lower amount in (lower in )section. Organizing a food table like this helped me track my nutritional intake. If I had to pick a food with high protein from the table, I would certainly go for either meat or eggs if I am non-veg(rich in with protein).

If I am vegetarian it is a little hard to avoid carbohydrates naturally, though having foods like moong-daal/Arhar daal would be one of my best choices to make as they are less calorie dense and provides more nutritional value. Chickpea would be my second choice with a good amount of protein and dietary fiber as well.

Similarly, if I had to reduce my weight I would certainly not choose food with loaded carbohydrate as it might hamper my weight loss goal, I would go for lean protein diet like an egg(only white part) and some amount of meat and I would usually avoid having white rice as part of my meal every day.

The other thing to care about is, adding some healthy fat in our diet is also important even in our weight loss journey, so having a tablespoon of ghee might be natural and healthy as well.

Choosing a part of our carbohydrate intake from fruits is one of the best choices we could make. Fruits contain sugar mostly in the form of carbohydrate, these sugar are naturally present in fruits and is healthier options to make, so when organizing my diet with carbohydrate I wouldn't forget to include natural sugar that comes from various fruits like apple and banana, these fruits also provides various vitamins and minerals needed for the proper functioning of our body.

Bottom line: We do not need to take care of every gram of nutrient that goes into our body. Simply choosing food from the different nutrient categories will help us reach our goal of a healthier lifestyle. We must not miss out on providing our bodies with RDA of every macronutrient. All 3 nutrient have their important functions in our body, but as fats and carbohydrate are the readily available source of food in our day to day life, it's hard to keep the balance of protein, so focusing on having more protein daily might satisfy our daily requirement of all the macronutrient.