

Metabolism and its Interactions with the Body

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ABSTRACT

Metabolism is an important phenomenon in the human body as it is the only source for allowing the body to gain the energy through the food we take by performing the process.

The process of metabolism can be named under the bioenergetics. The term “bioenergetics” is a biochemical pathway or a metabolic pathway in which the cell attains the energy. In the process of metabolism, the arrangement of the energy plays a crucial part.

Keywords: Metabolism; Catabolism; Anabolism; Bioenergetics; Hemoglobin; Glucose

INTRODUCTION

Metabolism is a process of breaking down of the food particles into the small molecules in order to convert in to the glucose and further used by the cells for the energy production. The process of metabolism can be happened by two forms.

Catabolism

It is metabolic processes which breaks down the large molecules into small molecules and produce the energy that is utilized by the body for functioning.

Anabolism

It is also a metabolic process or the synthesis of the complex molecules in the cells from the modified one.

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By the process of metabolism, the nourishment takes place where by taking the food and supplements, the breakdown of them into glucose and further they combine few particles like new proteins and certain nucleic acids like DNA and RNA.

The certain supplements that are related with the metabolism process include the certain process like the substantial necessities also, the capacity for the body to sustain including the sum of the energy required as the low energy levels will be leading to the weakness further providing strength to the body.

As our human body is completely dependent on the glucose the carbohydrates and the sugars yield into glucose for the common physical activity. The proteins are the basic compounds that help to develop the tissues and cells in the body. Therefore, proteins play the integral part in the body as it builds the cells and the functioning of the body. They help in the cell structure, hemoglobin, supply of the oxygen and also with hold the stamina in the body. Proteins also provide the nitrogen to the nucleic acids such as DNA and RNA as they need them for their structure formation or build up.

Fats also play the important part which has the thickest molecules and tends to the production of the energy by the end. The fat includes the elements such as the cell structure that gives structure to the cell, the defensive pad that gives the basic protection to the cell, the solvents that retain the fat etc. In general, the fats reserve the more energy than the other cells. These must be included in the diet that helps for tending or generating the energy and by the end provide strength to the body. If the levels of the energy are less, it gives illness.

In the varieties of the food that we take, the minerals do not

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Received: July 6, 2021; **Accepted:** July 20, 2021; **Published:** July 27, 2021

Citation: James U. Bowie (2021) Metabolism and its Interactions with the Body. Clin Med Bio Chem. 7:106

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directly provide the energy. It need the certain or significant metabolic pathways. About the 25 components have been reported till date.

The response to the metabolic pathways coordinate and give access for the nourishment of the body as well as the helps in the processing the compounds for the succession of the chemical changes or the modifications. Therefore, the process of metabolism plays the crucial role for burning the energy from the

food we take. For the body to respire, digest, circulate blood, the metabolism rate plays the crucial role.

ACKNOWLEDGMENT

The authors are grateful to the journal editor and the anonymous reviewers for their helpful comments and suggestions.

DECLARATION OF CONFLICTING INTERESTS

The authors declared no potential conflicts of interest for the research, authorship, and/or publication of this article.