### What You Should Know About Blood Sugar and Weight Loss

Blood sugar level is an indicator of amount of sugar or glucose present in the blood from the food we consume. The blood sugar is not a constant and it keeps fluctuating throughout the day depending on the type of physical activity performed and also on the kind of food consumed.

Both high and low levels of blood sugar have their own health implications. High blood sugar levels are clearly linked to diabetes, obesity etc and low blood sugar level to extreme tiredness and fatigue.

It is imperative to adopt a healthy eating habit which do not cause the blood sugar levels to fluctuate to extremes and rather maintain it at a steady pace. Healthy eating implies consuming plenty of fiber rich fruits and vegetables, refraining from simple carbohydrates (sugars), fats and avoiding junk foods.

Clinical studies have clearly evidenced that following a healthy eating habit reduces the risk of weight gain, promotes weight loss among obese and overweight individuals. The key dietary factors that help in weight loss are low fat, complex carbohydrate, nutrient rich foods. A low fat diet ward off unnecessary fat accumulation in the body, complex carbohydrates maintain a steady increase in blood sugar levels and nutrient rich foods regulate a healthy metabolism. Among the three factors, recent years have seen a lot of research work pertaining to blood sugar and its link to weight loss.

## How is blood sugar formed from carbohydrate intake?

A steady stream of blood glucose level helps to maintain the energy levels constant and ward off fatigue. Our blood sugar levels are largely dependent on the type of food we consume, especially the carbohydrates. Carbohydrates are obtained from our diet by consuming grains, cereals, fruits, sweets, starchy and fibrous vegetables.

Carbohydrates are the primary source of energy to our body because they are digested and broken down to yield glucose (energy). Once, the carbohydrates are converted to glucose, they are released into the blood. It is from here the glucose is transported to various tissues and cells for energy needs.

This function is efficiently carried out by the hormone insulin, secreted by the pancreas. They take up the glucose and transport them to cells, the excess is stored as fat in the body. This is the fate of carbohydrate in the body.



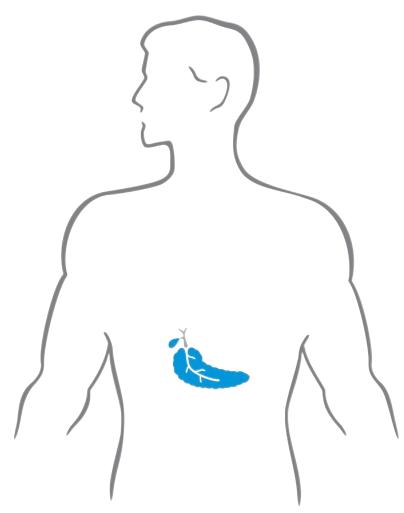
# Role of pancreas in processing blood sugar

A steady stream of blood glucose level helps to maintain the energy levels constant and ward off fatigue. Our blood sugar levels are largely dependent on the type of food we consume, especially the carbohydrates. Carbohydrates are obtained from our diet by consuming grains, cereals, fruits, sweets, starchy and fibrous vegetables.

Carbohydrates are the primary source of energy to our body because they are digested and broken down to yield glucose (energy). Once, the carbohydrates are converted to glucose, they are released into the blood.

It is from here the glucose is transported to various tissues and cells for energy needs. This function is efficiently carried out by the hormone insulin, secreted by the pancreas.

They take up the glucose and transport them to cells, the excess is stored as fat in the body. This is the fate of carbohydrate in the body.



# Role of pancreas in processing blood sugar

When there is rise in the blood glucose levels, the pancreas secretes the hormone insulin. The presence of insulin stimulates the receptors in the muscle tissues and cells in the body. The receptors open up in the presence of insulin and allow glucose from the blood to enter the cells. The glucose is then used by the cells for various functions in the body and the excess glucose is stored in liver and muscle.

During periods of low blood sugar, the pancreas secretes the hormone glucagon. Glucagon stimulates the release of glucose from the liver cells to the blood stream in order to prevent the blood glucose from dipping very low and prevent fatigue and extreme tiredness. Thus pancreas play an important role in maintaining the blood sugar levels at a normal range of 80 - 120 mg/dl.

### Why is knowing blood sugar important?

There are three types of carbohydrate that is important for a person considering weight loss - fiber, simple and complex carbohydrates.

#### Fiber:

Fibers are indigestible carbohydrates that yield no nutrients or energy to the body; however they play a significant role in our health by maintaining digestive health, reducing high cholesterol levels, regulating weight and maintaining heart health. They add bulk to food, provide feeling of fullness to the stomach and thus regulate appetite.

#### Simple carbohydrates:

Refined sugar, honey, fruit juices, sweet desserts, white bread, cakes etc are examples of simple carbohydrates. They are easily broken down by the body within minutes of consumption and they raise the blood sugar level sharply.

Simple carbohydrates are recommended in very minimal quantities because of their ability to rush the blood sugar levels to high levels. Studies reveal that this type of carbohydrate causes an increase in appetite as well as increase the risk of fat storage.

#### **Complex carbohydrates:**

Green leafy vegetables, nuts, seeds, whole grain, whole grain bread, oat meal, buckwheat, vegetables, fruits high in water content, fibrous fruits such as apricots, plums etc are few examples of complex carbohydrates.

These carbohydrates take longer to digest in our body and they tend to raise the blood sugar levels at a slower but steady pace. Studies reveal that such carbohydrates are important part of a weight loss program since they take longer to stimulate appetite and are less fattening.

## How does blood sugar level affect our appetite and weight loss efforts?

The influence of food consumed on the blood sugar level is indicated by the term glycemic index. Glycemic index range from 1–100, simple carbohydrates have a high glycemic index and complex carbohydrates have low to moderate glycemic index. Short term studies have shown that foods with high glycemic index may increase hunger and stimulate overeating in comparison with foods with low glycemic index.1

A research study from Tufts University, Boston reveals that foods with low glycemic index may be beneficial in delaying hunger and aid in weight loss among obese individuals<sup>2</sup>.

Fiber rich foods and complex carbohydrates are known to be beneficial for weight loss because of their influence over the signals of appetite in the body.

Fibrous foods that also contain complex carbohydrates create a feeling of fullness in the stomach and also take longer to digest the sugars. This consequently signals the appetite center in the brain to inhibit food consumption and control the portion size3.

### Food sources with high glycemic index

While embarking on a weight loss journey, it is necessary to be conscious of the type of food and carbohydrate consumed. Some foods that result in high blood sugar include the following:

- Refined sugar, honey, maple syrup
- Fruit juices, canned fruits, jellies, fruit spreads
- Fruits like bananas, pineapples, and all dried fruits
- Processed food products such as white crackers, white bread and bagels.
- Refined white flour, white rice etc.



## Dietary recommendations for healthy blood sugar levels

Here are a few guidelines to maintain healthy blood sugar levels which in turn keep the waist line in control:

- Consume plenty of fiber rich food, they add satiety value to the diet and the additional benefit is that to also reduces the risk of many diseases
- Snack on water-laden fruits, nuts, seeds in place of calorie-dense junk foods.

- Include plenty of complex carbohydrates in the diet, they raise the blood sugar at a steady and slow pace.
- Consume whole grain foods and whole grain products such as brown rice, whole grain pasta etc.
- Green leafy vegetables, all rainbow coloured vegetables should dominate the menu.
- Limit or cease from consuming sugary drinks, refined carbohydrates, processed food items etc that shoot your blood sugar levels over a short period of time.

Consuming healthy foods and planning your meal is the cornerstone in maintaining healthy blood sugar and sustaining weight loss. This depends on type of carbohydrate chosen and the glycemic load index of the food consumed.

In addition to the above mentioned dietary recommendations, it is imperative to adopt a regular exercise pattern that plays an important role in maintaining blood sugar levels.

### Your Blood Sugar and Alkaline Environment

One effective way to maintaining a healthy blood sugar level and keep your health in tip-top condition, maintain a healthy weight and lose weight healthily is by following an alkaline diet. When you are ready to take control of your health, you can try our alkaline diet <u>here</u>.

> Warmest Regards, Emma Deangela