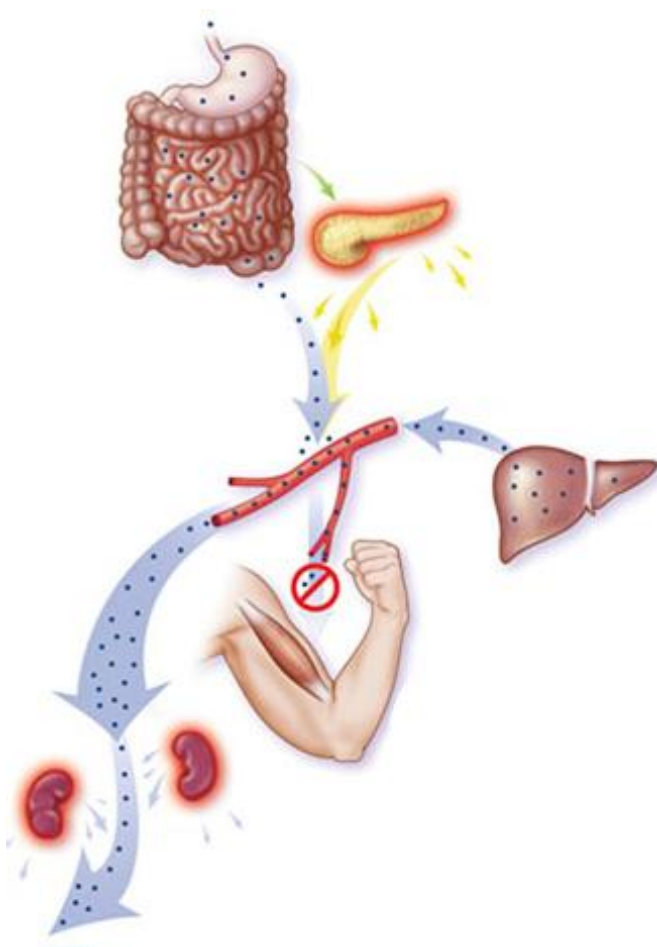


diabetes and fucoidan

HOW IT WORKS

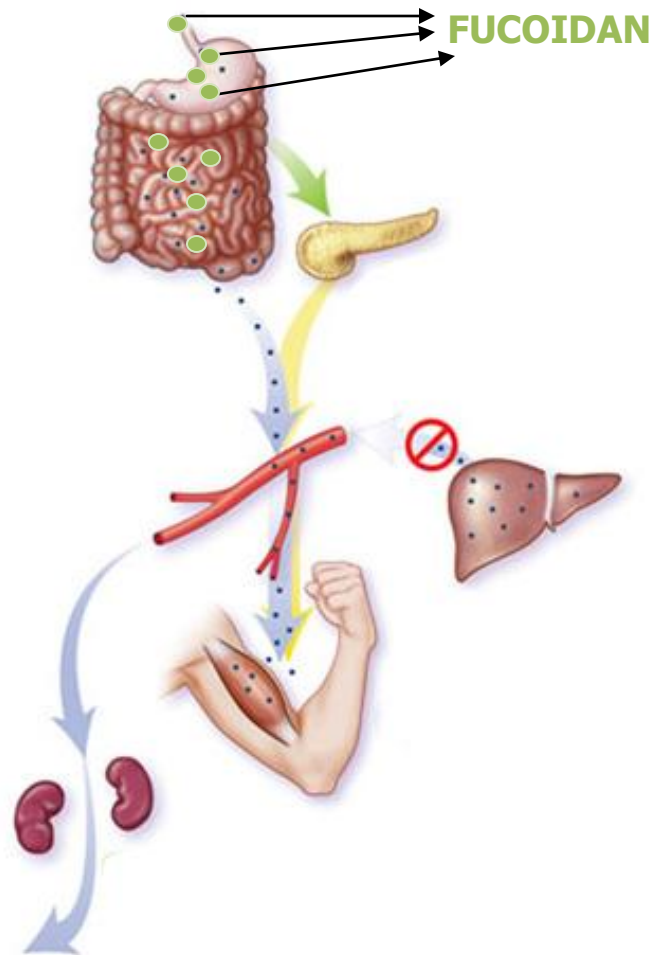
Fucoidan is an indigestible dietary fiber that "aids" digestion by absorbing water and pushing food along the digestive tract, making bowel movements easier. For this reason, the speed of glucose is being absorbed slowly as well. Blood sugar levels go up right after a meal, but when people are taking fucoidan, it helps them prevent a sudden rise in their blood sugar level. Furthermore, when the blood sugar level rises, the secretion of insulin is higher, but when fucoidan is being consumed, it aids the body to use insulin adequately. This is the reason why fucoidan helps control the blood sugar levels.

PERSON WITH DIABETES **NOT** TAKING **FUCOIDAN**



- **Low immunity**
- **Pancreatic cells will be destroyed**
- **No insulin will be produced**
- **Glucose stays in the blood**
- **Insulin not used properly**

PERSON WITH DIABETES TAKING **FUCOIDAN**



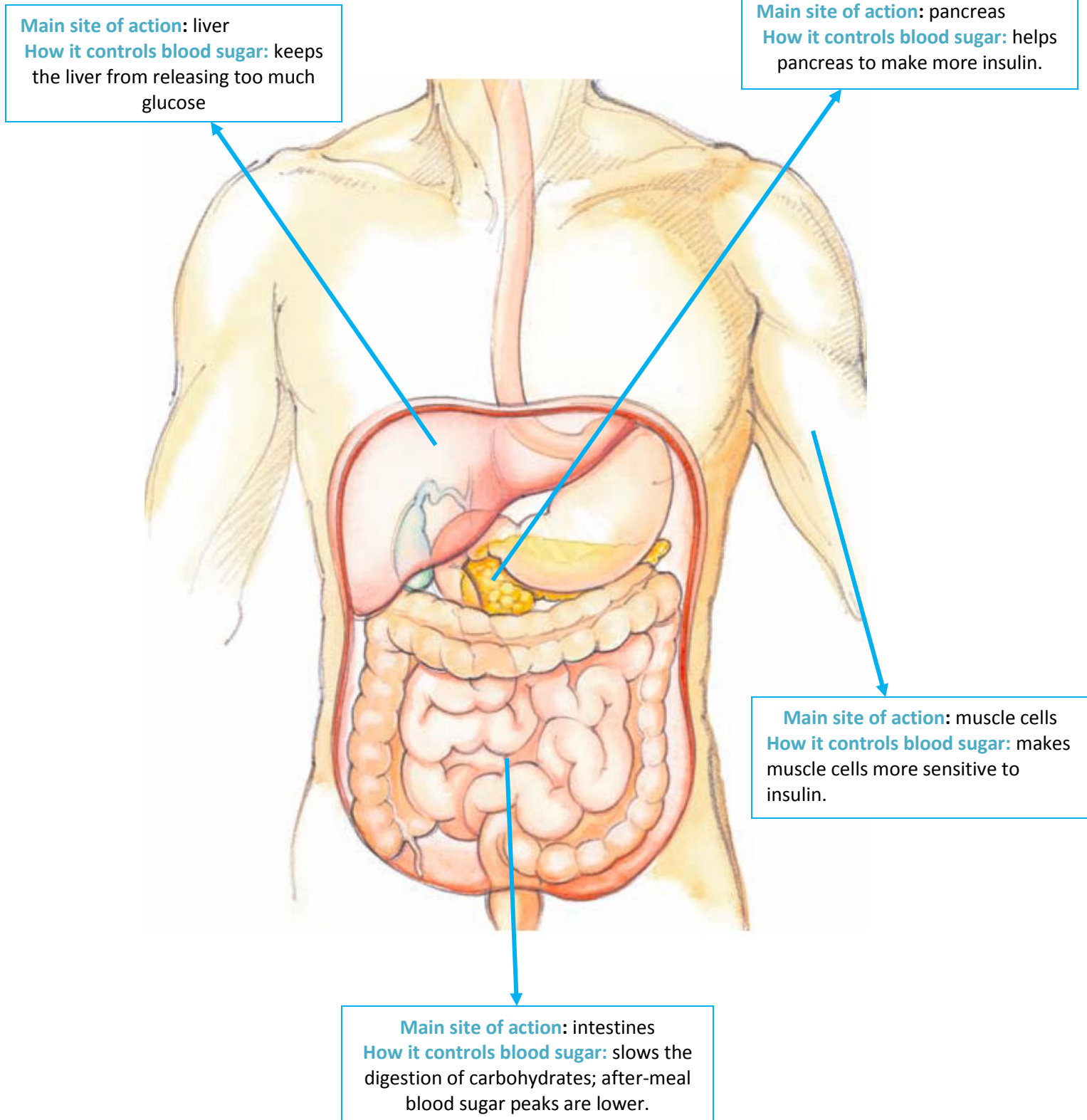
- **Better IMMUNITY**
- **Body uses insulin appropriately**
- **Better digestion**
- **Better organ functions**
- **Better overall health**

Fucoidan can help control the symptoms while at the same time reducing the diabetes itself. As for type I diabetes, since normally the body's immune system fights off foreign invaders, like virus or bacteria. Type I diabetes occurs when the immune system destroys the insulin-producing cells in the pancreas called beta cells. Fucoidan can help type I diabetic people because it will help boost up their immunity and it will help balance their immunity overall.*

Information to remember about diabetes and fucoidan

- **Fucoidan** helps to lower high blood sugar levels. It does not take the place of healthy eating and exercise.*
- **Fucoidan** will help boost up the immunity.*
- **Fucoidan** will aid the body to use insulin adequately.*
- **Fucoidan** will help promote better digestion.*

FUCOIDAN AND DIABETES



Diabetes Facts

According to the American Diabetes Association, there are a total of 25.8 million children and adults in the United States- 8.3 % of the population with diabetes. 1.9 million new cases of diabetes are diagnosed in people aged 20 years and older.² Diabetes is a number of diseases that involve problems with the hormone insulin. While not everyone with type II diabetes is overweight, obesity and lack of physical activity are two of the most common causes of this form of diabetes.

What is insulin?

Insulin is a hormone that is central to regulating carbohydrate and fat metabolism in the body. Insulin causes cells in the liver, muscle, and fat tissue to take up glucose from the blood, storing it as glycogen in the liver and muscle. Without insulin, you can eat lots of food and actually be in a state of starvation since many of our cells cannot access the calories contained in the glucose very well without the action of insulin.

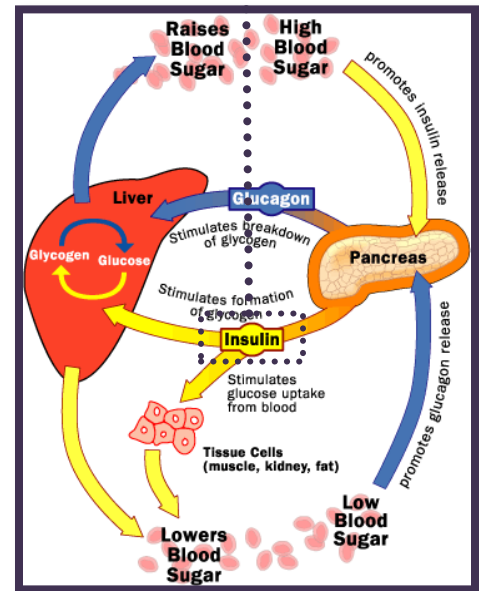
Type I Diabetes

Type I diabetes, also called juvenile diabetes or insulin-dependent diabetes, is a disorder of the body's immune system-that is, its system for protecting itself from viruses, bacteria or any "foreign" substances. Type I diabetes occurs when the body's immune system attacks and destroys certain cells in the pancreas, an organ about the size of a hand that is located behind the lower part of the stomach. These cells are called beta cells and they are the ones that produce insulin. When a beta cell is destroyed, no insulin is produced. Therefore, the glucose stays in the blood instead, where it can cause serious damage to the organ system of the body.

Type II Diabetes

Unlike people with type I diabetes, people with **type II diabetes** produce insulin; however, either their pancreas does not produce enough insulin or the body cannot use the insulin adequately. This is called insulin resistance. When there is not enough insulin or the insulin is not used as it should be, glucose (sugar) cannot get into the body's cells. When glucose builds up in the blood instead of going into the cells, the body's cells are not able to function properly.

Fucoidan
can further help lower high blood sugar levels by boosting up the immunity and helping the body use insulin properly.*



References

1. "Effect of Kaisou Fucoidan" Dr. Tachikawa, Noah Publisher, Tokyo 2008.
2. "Type II Diabetes." Mayo Foundation for Medical Education and Research. July 8, 2010. www.diabetes.webmd.com
3. "Type 2 Diabetes." American Diabetes Association. www.diabetes.org



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