

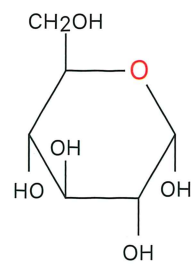
DNJ

Mulberry leaves contain substances that support well-being, and have been used in traditional medicine for a long time

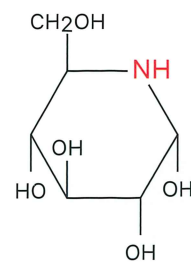
A recent research has revealed that mulberry leaves contain DNJ (1-deoxynojirimycin). DNJ may help in reducing blood sugar levels and preventing diabetes by inhibiting α -glucosidase activity.

DNJ (1-deoxynojirimycin) is a unique component. Because the chemical structure of DNJ is similar to glucose, DNJ inhibits decomposition of disaccharides to monosaccharides by antagonizing maltase and sucrase of the small intestine involved in carbohydrate absorption.

DNJ is similar to glucose

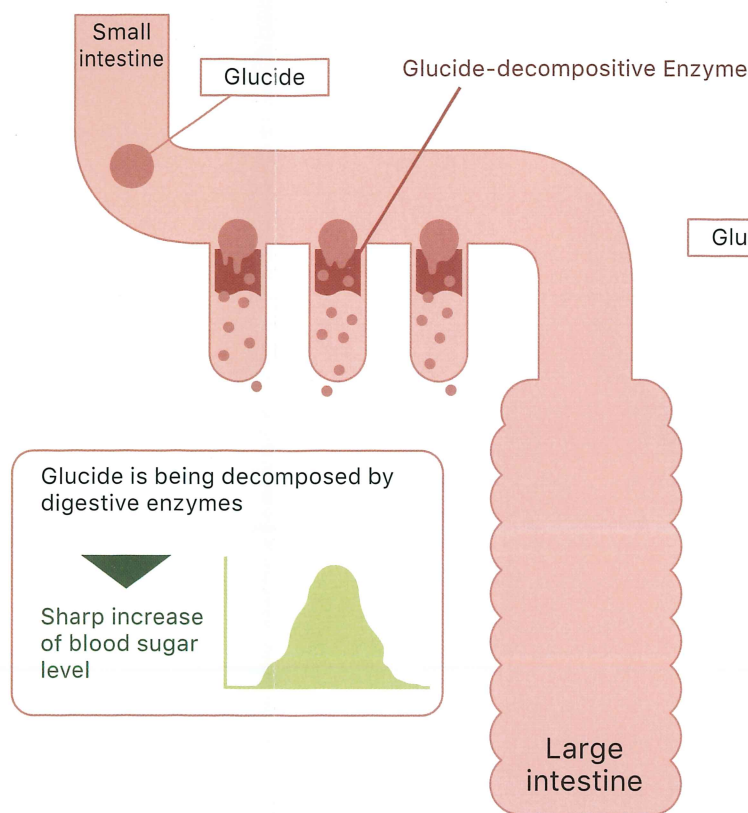


Glucose

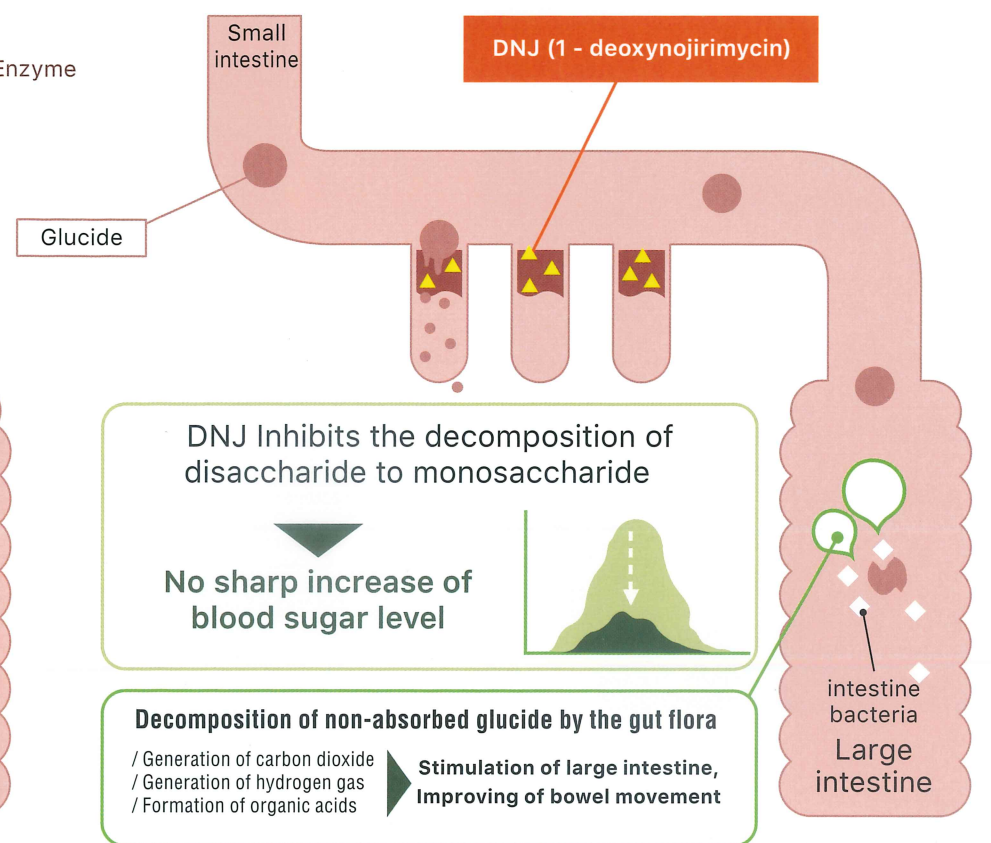


DNJ
1 - deoxynojirimycin

When you do not take DNJ

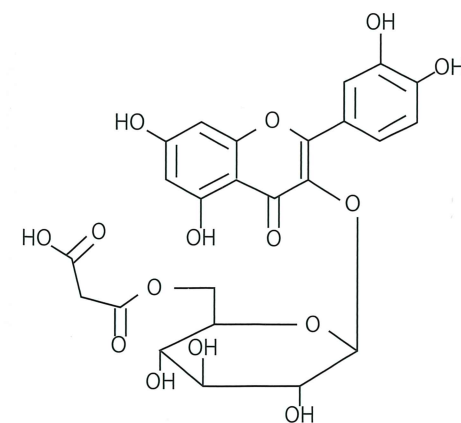


When you take DNJ



Glucose is decomposed by digestive enzymes and absorbed in the form of monosaccharides from the small intestine, but when it is inhibited by the DNJ from disaccharide to monosaccharide, it is not absorbed in the small intestine, so that the postprandial rapid rising of blood sugar level is suppressed.

Carbohydrates not absorbed in the small intestine are transported to the large intestine and are broken down by the bacteria, present in the large intestine. At that time the generation of carbonic acid gas and hydrogen gas, and the formation of organic acids such as acetic acid and lactic acid will cause stimulation of the colon and improve of bowel movement.



Q3MG Quercetin 3-(6-malonylglucoside)

Q3MG

Our mulberry leaves also contain Q3MG (Quercetin 3-(6-malonylglucoside)) according to the research we had conducted in collaboration with Shimane Institute for Industrial Technology and Faculty of Medicine at Shimane University. Q3MG may help in preventing arteriosclerosis and oxidation of LDL-cholesterol*. The content of Q3MG in mulberry leaves from Shimane in Japan is larger than that in mulberry leaves from any other places.

*1 J. Nutr. April 1, 2005 vol. 135 no. 4 729-734