

## Extract from Mulberry fruits and Extract from Mulberry leaf

works together in controlling the level of sugar in blood which can prevent the risk of having diabetes. Moreover, they could potentially reduce the level of sugar in blood and cholesterol in patient with high cholesterol and high level of sugar in blood. The effects of mulberry leaf is reducing the process of carbohydrate digestion and the process of digesting big sugar molecules to small sugar molecules which would help those who want to diet a lot because all the consumed carbohydrates would not be digested, decreasing chances of having obesity and controlling weight at the same time.

Extracts from mulberry fruits also stimulate cells to make them more sensitive to insulin and help repair a damaged pancreas caused by high level of sugar as well.



### References :

1. Ariya S. et.al, , Preventive effects of Morus alba L. anthocyanins on diabetes in Zucker diabetic fatty rats, Experimental and Therapeutic Medicine 6: 689-695, 2013
2. Inhibitory effects of extractives from leaves of Morus alba on human and rat small intestinal disaccharidase activity, British Journal of Nutrition (2006), 95, 933-938

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## Mulberry Fruit & Leaf

Sugar balancing nutrients And blood lipids,  
helping to control weight, ideal nutrients  
of metabolic syndrome

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### Extracts from mulberry fruit (*Morus alba* L.)

provide various kinds of anthocyanin in large amount. It is a group of high antioxidants included with Cyanidin 3-rutinoside and Cyanidin-3 glucoside. In patients with diabetes in addition to insulin resistance, the performance of the pancreas is reduced because pancreatic cells die gradually. The research conducted by Ariya Sarikaputi and her team published in the medical journal "EXPERIMENTAL AND THERAPEUTIC MEDICINE" 6: 689-695, 2013. An experiment on mice that are genetically modified to has diabetes, imitating models of the human type 2 diabetes, taking mulberry extract for 5 weeks. It appears that the sugar in rats decreased to its normal state, Insulin level in blood increase caused by the better performance of pancreas work and self repair of the pancreas which bring the cells back to life.

In a human experiment, volunteers with diabetes who never took any conventional medicine (level of sugar between 101 - 125 mmol / dl). Taking mulberry powder 1,500 mg / day for 3 months, the results showed that blood sugar in volunteers reduce to normal rate which is lower than 100 mmol / dl and HbA1C values returned to its normal state (less than 5.7%).

In addition to reducing level of sugar in blood, accumulation of sugar and repairing a pancreas. Other researches on mulberry fruit suggest that mulberry fruit also has potential in improving eyesight and treating lung cancer in petri dish.

### Extract from Mulberry Leaf

Extract from Mulberry leaf balances the level of sugar in blood. In Mulberry leaf there is an important substance named "DNJ" or 1-deoxynojirimycin which when activate, it inhibits  $\alpha$ -Glucosidase inhibitor which has the mechanism to prevent the body to digest carbohydrates into small sugar molecules. DNJ is only activated in small intestine.

Extract from mulberry leaf also acts as an antioxidant, balancing the level of fat in blood and an anti-inflammatory. The proper way to take Mulberry extract in patients with diabetes and for those who want to diet is take it prior every meal because mulberry extract would help reduce the carbohydrate absorption rate.

