
# The Sugar Comparison ¤ Sucrose vs. Trehalose

Smart Sugars Lesson #20

*No medical claims are intended or implied for treating or curing any disease*

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This lesson could easily be 145 lessons but I have kept it short with a link to an expended Lesson with references for your continual use. You may click here for the more detailed edition: http://www.endowmentmed.org/pdf/SmartLesson20detail.pdf

This short version is a very brief look at research data comparing the bad sugar, sucrose, with one good sugar, trehalose. There are about twenty truly good sugars. Always use references and the more detailed version when education others.

## Sucrose Warning

**Studies show that sucrose can cause or contributes to: obesity,** diabetes**, infectious diseases,** the body's ability to handle fat and cholesterol**, promotes LDL,** increased blood pressure**, enlarged liver,** increased liver fat**, suppressed the immune system,** hypoglycemia**, upset mineral relationships in the body,** hyperactivity**, anxiety**, crankiness**, rise in triglycerides**, ages skin**, tissue elasticity loss,** chromium deficiency**, cancer of the ovaries**, copper deficiency**, absorption of calcium & magnesium**, weaken eyesight**, raise the level of neurotransmitter's: dopamine, serotonin, and norepinephrine,** an acidic digestive tract**, rapid rise of adrenaline levels in children,** malabsorption**, premature aging,** lead to alcoholism**, tooth decay,** risk of Crohn's disease**, and ulcerative colitis,** gastric and duodenal ulcers**, arthritis,** asthma**,** yeast infections**, heart disease,** osteoporosis**, salivary acidity,** lower vitamin E in the blood**, decreased growth hormone**, triglycerides**, kidney diseases,** drowsiness**, interference with protein absorption,** food allergies**, toxemia during pregnancy,** cardiovascular disease**, alters gene expression,** change protein structure**, headaches**, **including migraine,** pancreatic cancer in women**, learning disorders,** reduced learning capacity**, contributed to Alzheimer's disease,** increased platelet adhesiveness**, hormonal imbalance,** dizziness**, increased production of free radicals and oxidative stress**, feeds cancer**, increased the concentration of bile acids in stools and bacterial enzymes in the colon,** increased estradiol (the most potent form of naturally occurring estrogen) in men**, destroys alkaline phosphatase enzyme**, risk gallbladder cancer**, an addictive substance,** exacerbate PMS**, worsens ADHD**, adversely affects urinary electrolyte composition**, slowed adrenal glands**, slow or stop oxygen to the brain**, dehydrates newborns**, low birth weight babies**, increased risk of breast cancer**, induced salt and water retention**, contributed to mild memory loss,** caused constipation**, caused brain impairment in prediabetic and diabetic women,** increased stomach cancer risk**, metabolic syndrome,** increased neural tube embryo defects**, irritable bowel syndrome (IBS),** caused liver tumors**, caused myocardial infarction.**

## Trehalose Benefits

**Studies show that trehalose is or can: inhibit fat cell enlargement,** inhibit progression of Type 2 Diabetes and **metabolic syndrome,** protect cells from electron beam damage**, more stable than other sugars,** provide sustained energy**, inhibit Alzheimer's,** fight neurodegenerative diseases**, help in diabetes,** triglycerides**, and kidney diseases,** instrumental in hormonal regulation **and gene function in plants,** is hot ingredient in the cosmeceutical and neutraceutical markets - because of its anti-aging functionality**, extend shelf life of other sugars,** improve stress tolerance in organisms used in cryopreservation of human fetal skin for transplantation**, proved effective kinetic advantages,** puts life on hold**, may be Huntington's Hope,** works well with alkaline-earth metal ions**, solution to refrigeration's soggy mash,** can be added to every recipe**,** alleviated polyglutamine-mediated pathology in mouse model of Huntington's disease**, better for teeth than regular sugar,** trehalose glycolipids have amazing function**, inhibits inflammatory cytokine production,** plays a new role in nano-technology and research of cell walls**, plays role in cDNA research,** protects epithelial and endothelial cells**, stress protectant for proteins and membranes,** exceptional protein stabilizer**, aids stability of human insulin,** reduces aggregate formation and delays pathology in a transgenic mouse model of oculopharyngeal muscular dystrophy**, inhibits aggregation and neurotoxicity of beta-amyloid 40 and 42 as in Alzheimer's,** multiple effects of trehalose on protein folding in vitro and in vivo**, gene expression pattern in Huntington's transgenic rats and HD - in mice: specific effects of trehalose treatment,** trehalose in yeast: stress protectant rather than reserve carbohydrate**, extraordinary stability of enzymes dried in trehalose.**

References are available at the Link above and in the glycomics / brain function in ***The Trehalose Handbooks*** Vol. 1, 2, and 3 available at www.endowmentmed.org.