

# METABOLIC CHANGE JANUARY 2022 NEWLETTER

## Healthy Balances & Unhealthy Tipping Points

### Salt & Potassium

From the website of the *Centers for Disease Control and Prevention (CDC)*:

#### Potassium, Sodium, and High Blood Pressure

- Increasing your potassium intake can decrease your blood pressure if you have high blood pressure.
- Consuming too much sodium can raise your blood pressure. This means that, on average, the more sodium you consume, the higher your blood pressure will be, especially if you already have high blood pressure, also known as hypertension.
- Consuming too little potassium in your diet and too much sodium can raise your blood pressure (The Role of Potassium and Sodium in Your Diet).

For more info on potassium and heart health found on the American Heart Association's webpage *A Premier on Potassium*, click [here](#).

### Collagen, Vitamin C & Sugar

"Vitamin C is a water soluble nutrient. Unlike most other animals who can make their own, we must get our Vitamin C from dietary sources. It is an antioxidant itself and supports glutathione (the body's "master antioxidant") recycling. It also provides collagen/connective tissue support and helps with immune function.

Insulin promotes vitamin C uptake at the cellular level. Most know insulin as an escort for glucose into the cells. The problem lies when blood sugar rises. **High blood sugar inhibits uptake of Vitamin C.**

Vitamin C takes part in collagen synthesis. If we are suboptimal in Vitamin C... collagenous structures could be at risk... Eating muscle meats and avoiding connective tissues skirts consumption... Our blood vessels also have a collagen component. The absence of sufficient Vitamin C impairs collagen formation in the vasculature, whereas Vitamin C can boost function" (Rescue Vitamin C from Sugar).

### Magnesium & Sugar

According to *Heathline*:

"Magnesium is a mineral that plays many important roles in your body, including

managing your insulin and carbohydrate metabolism. It's involved in your body's ability to secrete insulin and may help your cells use insulin more effectively.

Magnesium appears to help manage blood sugar levels among people with diabetes. Also, those who tend to consume less magnesium typically have poorer blood sugar regulation and a higher risk of type 2 diabetes than people who consume higher amounts.

For example, one review of 26 studies including 1,168 people found that those with the highest regular intake of magnesium had a 22% lower risk of developing type 2 diabetes than those who regularly consumed the least magnesium" (Is Magnesium Good for My Blood Sugar Levels If I Have Diabetes?).

## Low Sulfur Diet

According to *CNN Health*:

"New research shows limiting protein-rich foods that naturally contain high levels of sulfur amino acids, such as meats, dairy, nuts and soy, may reduce the risk for cardiovascular disease. If future research bears that out, it may be another stepping stone to better health and longer life.\*

One finding: Americans appear to be eating 2.5 times the amount of sulfur amino acid than the estimated nutritional requirement, said co-author Xiang Gao, director of the nutritional epidemiology lab at Penn State University. "Many people in the United States consume a diet rich in meat and dairy products," said Gao in a statement. "Therefore, it is not surprising that many are surpassing the average requirement when considering these foods contain higher amounts of sulfur amino acids" (Heard of the low sulfur diet? Eating low-protein may prolong your life, say researchers).

\*The health benefits studied in animals applied to fully-grown adults, whereas younger animals reaped the benefits but also experienced stunted growth.

## References

*Is Magnesium Good for My Blood Sugar Levels If I Have Diabetes?* (n.d.) Healthline. <https://www.healthline.com/nutrition/is-magnesium-good-for-my-blood-sugar-levels-if-i-have-diabetes#1>

LaMotte, S. (February 3, 2020). *Heard of the low sulfur diet? Eating low-protein may prolong your life, say researchers.* CNN Health. <https://www.cnn.com/2020/02/03/health/low-protein-low-sulfur-diet-longevity-wellness/index.html>

*Rescue Vitamin C From Sugar.* (January 16, 2020). Prescriptive Optimization. <https://prescriptiveoptimization.com/2020/01/16/rescue-vitamin-c-from-sugar/>

*The Role of Potassium and Sodium in Your Diet.* (n.d.) Centers for Disease Control and Prevention. <https://www.cdc.gov/salt/potassium.htm>