

## **Subject: Functions of the 8 Essential Monosaccharides**

### Functions Of The Eight Essential Monosaccharides

In addition to improving cell-to-cell communication, research shows that these sugars work in the body in the following ways:

#### **MANNOSE**

- \* Prevents bacterial, viral, parasitic and fungal infections
- \* Eases inflammation in rheumatoid arthritis
- \* Lupus patients are deficient in this saccharide
- \* Lowers blood sugar and triglyceride levels in diabetic patients

#### **FUCOSE**

- \* Influences brain development
- \* Improves brain's ability to create long-term memories
- \* Inhibits tumor growth
- \* Metabolism of this saccharide is abnormal in cystic fibrosis, diabetes, and cancer and during episodes of shingles, which is caused by the herpes virus
- \* Active against other herpes viruses, including herpes I and cytomegalovirus
- \* Guards against respiratory infections
- \* Inhibits allergic reactions

#### **GALACTOSE**

- \* Enhances wound healing
- \* Increases calcium absorption
- \* Triggers long-term memory formation

#### **GLUCOSE**

- \* Potent fast-energy source
- \* Enhances memory
- \* Stimulates calcium absorption
- \* Too much or too little can be problematic
- \* Elderly Alzheimer's patients register much lower levels of this saccharide than those with organic brain disease from stroke or other vascular diseases
- \* Glucose metabolism disturbed in depression, manic-depression, anorexia and bulimia

**N-ACETYL GALACTOSAMINE**

- \* Heart disease patients have lower-than-normal levels of this saccharide
- \* Inhibits spread of tumor

**N-ACETYL GLUCOSAMINE**

- \* Immune modulator with antitumor properties and activity against HIV
- \* Vital to learning
- \* Glucosamine, a metabolic product of this saccharide
- \* Helps repair cartilage
- \* Decreases pain and inflammation
- \* Increases range of motion
- \* May also help repair mucosal-lining defensive barrier implicated in Crohn's disease, ulcerative colitis and interstitial cystitis

**N-ACETYL NEUROMINIC ACID**

- \* Important for brain development and learning
- \* Abundant in breast milk
- \* Repels bacteria, virus and other pathogens

**XYLOSE**

- \* Antibacterial and antifungal
- \* May help prevent cancer of the digestive tract

**Presented by Dr. Douglas Willen**