



Dr. Brock Lectures™

Learning / Leadership / Knowledge

Facebook: Brock Post – Post 2 How Sweet is Inflammation?

Written by: Dr. Ryan Cedermark, DC, DACNB, RN, BSN, FNP Student (Chief Resident, CHC)

Reviewed by: Dr. Brandon Brock, MSN, BSN, RN, NP-C, DCN, DCM, DAAIM, BCIM, DACNB, FICC

Structural content edited by: Tara Brock

Sweet Inflammation

Dysregulation of blood sugar has been shown to create inflammatory responses in the body and brain.

Notes for Apex:

Several controls to regulate glucose are found in the hypothalamus, hippocampus and the Mesencephalic Reticular formation of the brainstem. When circulating glucose drops, sensors in the lateral nucleus of the hypothalamus activate the thalamus

Notes from papers:

The brainstem dorsal vagal complex (DVC), which includes as primary components the nucleus tractus solitarius (NTS) and dorsal motor nucleus of the vagus nerve (DMV), plays a critical role in the autonomic parasympathetic control of energy homeostasis, through activation of the vagus nerve. Neurons controlling the vagus nerve functionally regulate gastrointestinal motility as well as liver, pancreas, and other organs, and these functions appear to be significantly altered in diabetes ([Fig. 2](#)). The NTS is the first site of central synaptic contact for sensory afferent fibers of cranial nerves VII, IX, and X, including viscerosensory vagal afferent

