

## **Raw Carrots --- What's Up Doc?**

When we talk about raw carrots, we are talking about the benefits of prebiotics. If you have read all our NUTRI-SPEC Letters and other articles on prebiotics, you know that they are absolutely essential to maintain a healthy microbiota. In fact, prebiotics are more important than probiotics in maximizing the production of butyrate and other short chain fatty acids along with minimizing the production of endotoxin. In other words, the reduction of Immuno-Neuro-Endocrine stress is better enhanced by proper prebiotic intake than any other form of supplementation or dietary modification.

The prebiotics in your Immuno-Synbiotic supplements (Chicory Root Inulin and Glucomannan) by far the best thing that can be taken in supplement form. Qualitatively they have specific effects on reducing stress responses in the 70+% of the immune system that resides in the gut lining. In other words, those prebiotics have a dual effect. The first effect is to feed the good critters in the gut maintaining a health-maintaining microbiota. But the second effect is that they have specific effects on immune reactivity beyond their role of feeding good critters.

When it comes to providing a great nutrient source for a healthy microbiota, the maximum benefit from diet modification comes from ingesting raw carrots. Obviously, raw carrots are a good source of "fiber" --- undigestible carbohydrate upon which a healthy microbiota thrives. But is a raw carrot superior to other forms of fiber such as wheat bran, psyllium, other raw vegetables, and other prebiotics that can be taken in supplement form? Absolutely yes.

Unlike the fiber in wheat bran and such vegetables as lettuce, the fiber in carrots is completely non-irritating to the gut lining. It will thus never stir up symptoms commonly experienced by those with irritable bowel problems in response to eating raw vegetables or ingesting bran or other fiber supplements. Furthermore, unlike bran, raw carrots will not bind nutrients and make them unavailable nutritionally.

For a non-irritating way to feed your healthy microbiota and thus minimize Immuno-Neuro-Endocrine stress, nothing beats raw carrots.