

Clinical Champion Update

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Fiber - Not Just for the Gut

"Where do you get your fiber?" This is probably one of the most important questions we can ask our patients about their lifestyle habits. Recall Hippocrates' statement that all disease starts in the gut. The condition of the gut microbiome has significant effects throughout the body. Our gut bacteria outnumber our "own" cells ten to one. They depend on prebiotics – fiber – to maintain their (and our) health.

Why is this so important? Our microbes run the show! This includes mental health (reducing anxiety and depression), cardiovascular / cerebrovascular and metabolic health (improving blood lipid profiles, lowering blood pressure, decreasing risk of stroke, improving glycemic control and insulin sensitivity, lessening the risk of diabetic microvascular and macrovascular complications, and preventing the progression of chronic kidney disease), intestinal health (decreasing risk and severity of conditions ranging from diverticulosis to inflammatory bowel disease to GI cancers), liver health (including fatty liver and cirrhosis), skin health, weight management, immunity, and osteoarthritis ... among others. Researchers are learning more about the significance of a healthy gut microbiome almost daily.

Many of these effects are due to fiber's ability to decrease inflammation. When we eat foods rich in fiber – legumes, whole grains, vegetables, and fruits (only plants provide fiber) – our gut microbes turn them into short-chain fatty acids, which have powerful anti-inflammatory effects on numerous compounds and processes in the body.

How much fiber do we need? The *Dietary Guidelines for Americans, 2020-2025* notes that more than 90% of women and 97% of men fail to meet the recommended daily intakes for dietary fiber: 25g for women and 38g for men. (On the other hand, 97% of Americans consume more protein than recommended.) Based on national surveys, however, most people think they're eating enough fiber. Various authors have commented that our evolutionary ancestors routinely consumed at least 100g of fiber daily from a diverse range of plants.

What types of fiber should we eat? Data from the American Gut Project suggest that people with the healthiest gut microbiomes consume more than 30 different plants per week. Aiming for the widest possible variety of fiber from legumes, whole grains, vegetables, and fruits helps to feed the diverse microbiome needed to process all of it to optimize our health. (There are 400,000 plants on earth, 300,000

of which are edible – so plenty of options are possible.) Maximizing diversity ("eating the rainbow") should be the goal for all of us.



Physicians Committee for Responsible Medicine

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