Autism, Probiotics and Dietary Fiber: Q&A with GI Specialist Tim Buie

- Autism Speaks ATN gastroenterologist Tim Buie answers your questions from last week’s “Office Hours” video on probiotics and dietary fiber

Thank you for your response to “Autism and Probiotics” the second segment in Autism Speaks’ “Office Hours” series with GI specialist Timothy Buie. (See video above.) Dr. Buie is the director of pediatric gastroenterology and nutrition at MassGeneral Hospital’s Lurie Center for Autism, in Boston. The center is one of 14 sites in the Autism Speaks Autism Treatment Network.

We asked Dr. Buie to answer as many of your follow-up questions as possible (below).

Stay tuned for Dr. Buie’s next Office Hours video segment – “GI-related Sleep Issues” – next Wednesday, Feb. 3, followed by its Q&A the following Wednesday, Feb. 11. Also see the series’ first video and Q&A: “Autism and Acid Reflux.”

Disclaimer: The following information is for educational purposes only. It is not intended to diagnose or treat, nor should it take the place of personal consultation with a medical professional. Always seek the advice of your physician or other qualified healthcare provider before starting any new treatment or discontinuing an existing treatment. Talk with your healthcare provider about any questions you may have regarding a medical condition.

Question: My son is 39 year and has autism. I gave him Florastor for Kids probiotic. I loved it because it was easy to dissolve in his juice. He showed a lot of positive improvements, such as calmer, less stimming and greater comprehension. Overall my husband and I both noticed the positive changes. Unfortunately he had issues with the yeast in the product. He practically scratched his eyeballs out. So we stopped it. Could you recommend another probiotic without yeast? He does not like pills or capsules. Your response would be greatly appreciated.

Dr. Buie: Thanks for your question. Yours is a good example of seeing benefits from a particular probiotic, but also recognizing a side effect or reaction. Many probiotic products have ingredients that some individuals won’t tolerate. This can include a variety of allergens, or substances that provoke allergic reactions.

Florastor is among the probiotics I often recommend. It’s clearly labeled with attention to potential allergens, including the live yeast that is among its active ingredients. You may be able to get similar benefits from a yeast-free, bacterial probiotic. Some good ones contain organisms in the lactobacillus or bifidobacterium groups.

When trying a new probiotic, I recommend choosing products that have a single strain of organism rather than multiple strains. This will help you determine whether your son has sensitivity to any one type of organism. Of course, you may find success with a product that contains multiple strains. It’s just more difficult to identify sensitivities when there are multiple ingredients.
In addition, some probiotics contain an added ingredient called a prebiotic. Prebiotics are designed to encourage the growth of the live probiotic organisms. But they can also increase unwanted gassiness.

Many pediatric probiotics come in powdered versions that you can mixed with food or drink to avoid having to swallow a capsule or pill. You can also get smaller amounts of probiotic organisms in cultured foods such as live-culture yogurts and kefirs. Some individuals with autism tolerate these foods better than supplements.

**Q:** Do probiotics help with acid reflux? If so, do you take probiotic for a certain length of time then stop taking for a certain length of time? Then start over?

**Dr. Buie:** I’m not aware of research showing benefits to using probiotics for treating acid reflux. Most evidence of benefits involves conditions such gastrointestinal infections, irritable bowel syndrome, inflammatory bowel disease and certain immune conditions such as food allergies and eczema. For chronic conditions, the probiotic is typically taken long-term. However, a limited course of probiotics is usually involved in preventing or treating acute diarrhea related to intestinal infection.

It might be possible that a probiotic could indirectly improve acid reflux by reducing chronic bloating, constipation or diarrhea. If so, continued use of the probiotic would likely be needed. These “good” bacteria don’t take up permanent residence in the colon. So they generally disappear from the body within a few days or weeks of stopping the product.

**Q:** Our child has a restricted diet. I’ve read that we shouldn't give a daily fiber supplement like Miralax or additional probiotics. What should we do to help with constipation and other GI issues?

**Dr. Buie:** It sounds like there may be some confusion here. Like your child, many individuals with autism eat restricted diets that set them up for GI difficulties including constipation. But Miralax is not a fiber supplement. Miralax contains a long-chain molecule that – like fiber supplements – softens stools by holding liquid in the colon. There is little dispute that Miralax is effective for many children with constipation. Recent discussions about the product have focused on an FDA-funded study evaluating the safety of using the product long-term in children. (To learn more, see “Researchers Scrutinizing Safety of Laxative Used by Many with Autism.”)

Miralax is probably the most commonly used agent for chronic constipation in children. It will continue to be used frequently. But whenever possible, I prefer natural alternatives. Fiber and probiotics are among these alternatives. However, each child needs personalized evaluation and treatment. So I don’t think it’s appropriate for me to suggest that everyone use any one fiber product or probiotic. When I discuss these issues with families in my office, I say “I want you to pick the one that works! Finding the right match takes an investment of time and trial.”

**Q:** My 17 year old son has been on a gluten-free, dairy-free diet for years. While he doesn't suffer from GI issues, I do have him take a probiotic every day to supplement for deficiencies due to this diet. Any advice?

**Dr. Buie:** Removing gluten and dairy products from the diet may result in changes in the body’s intestinal flora, or “good germs.” In fact, these changes appear to be positive for some
individuals. What we do know is that dietary fiber is a kind of natural “prebiotic” that fosters a healthy intestinal flora. So it’s important to ensure that your son’s diet includes plenty of fiber. I recommend getting fiber in the diet over fiber supplements, and many individuals tolerate cooked high-fiber foods better than raw ones. In other words, baked fruits and steamed vegetables are likely to produce less gassiness than fresh fruit and salads in sensitive individuals.

I don’t see a problem with using a probiotic in conjunction with a gluten-free, dairy-free diet. However, I don’t believe a probiotic would compensate for any nutritional need created by such a diet. Rather, the dietary restrictions would raise the importance of making sure that the individual is getting enough calcium, vitamin D and B vitamins.

Q: Is it important to have chitinase in the probiotic? I’ve heard that it breaks through the exoskeleton of Candida yeast cells to kill them off.

Dr. Buie: Chitinase is a type of enzyme sometimes used in medical treatments, particularly in anti-fungal creams and lotions. I don’t know of any research supporting its value as an additive to probiotic supplements or foods.

The makers of many probiotics include additional ingredients with the hope of making their products more effective. And often times, they can make a good case for a particular ingredient. Take, for example, prebiotics, which are designed to provide nutrient support to the probiotic organism or otherwise improve its survival in the digestive tract. Prebiotics include inulin, oligosaccharides and various types of dietary fibers.

Some prebiotics are sold separately from probiotic organisms in order to foster the good organisms naturally present in the intestinal tract. These prebiotic products may be particularly helpful for those who don’t tolerate probiotics well. But just like probiotics, prebiotics can have side effects such as increased gassiness and unwanted stool changes such as diarrhea or constipation.

Q: My son is 5 years old and has non-verbal autism. We have suspected GI and acid reflux issues but never seem to find a doctor who understands autism enough to explore any deeper than prescribing Miralax and antacids and sending us on our way. Your first video was incredibly eye-opening, as our son presents with many of the same symptoms you described. My question is: Can incredibly bad breath, especially upon waking in the middle of the night, be a sign of acid reflux? If so, what would the best treatment options be to help him? Thank you!

Dr. Buie: I’m sorry that you haven’t been able to find a provider willing to keep working to resolve your son’s GI issues. Foul breath can have several causes, including reflux. Reflux-related bad breath is often most common in the morning and at night, as you describe with your son. There are a number of ways to evaluate for and treat reflux. If reflux treatments, including antacids, have been somewhat helpful, I would suggest working with a specialist to fine tune, or adjust, these treatments. I caution against discounting reflux if one or more reflux medication has failed to help. Further evaluation may be needed. My hope with this video series is to help more physicians recognize and treat GI conditions in patients with autism. So you might also consider sharing the “Autism and Acid Reflux” video with your son’s doctor.

I also highly recommend looking for an autism GI specialist within the Autism Speaks Autism Treatment Network (ATN). You can find the center nearest you here.
Working with Your Medical Provider
I’d like to add one last comment in regard to discussing these and related issues with your medical providers. Office visits are complicated by many needs including medicine reconciliation, developmental screening and helping your child tolerate the appointment. If reflux or headache or any other medical concern is occurring, a problem-focused visit may be a way to narrow in on a particular issue. Make the appointment and come with your specific concerns including videos or behavioral logs illustrating the signs and symptoms that concern you. Don’t try to get other business done during that visit. Allow the provider adequate time to address how one might treat your child’s GI issue and discuss if referral to a specialist might be in order.