It's time to talk about

PROBIOTICS

But which one should you take? And how much? And how do they work? And while we're at it, why do they have such unpronounceable names? Find all the answers right here

BY BETH JANES

These days, probiotics seem to be everywhere— touted in the soft-serve at your local fro-yo joint and the kimchi on your fancy-schmancy sandwich. And yet, seemingly inexplicably, you probably aren't getting enough of them: Only 20% of Americans incorporate probiotics into their diets, according to a recent survey by market research firm Mintel. That's surprising when you consider that, unlike with some other nutritional trends, there's solid research confirming probiotics' benefits. "We all live on a bandwidth of health," says Colin Hill, Ph.D., president of the International Scientific Association for Probiotics and Prebiotics. "Probiotics can shift you in the right direction or delay a progression in the wrong direction, especially if you take them prophylactically." In other words, this is one bandwagon worth jumping on.→

SO WHAT ARE THEY?

To put it simply, probiotics are live microorganisms, such as strains of bacteria, that in adequate amounts give you a health benefit. They can be developed and grown in a lab and put in pills, powder, yogurt or other foods or drinks. When probiotics are present in your gut, they act like peacekeepers, helping to restore order and keep things humming. And scientists are finding that using probiotics to tinker with the gut's bacteria balance may offer a new way of treating illness and keeping people healthy.

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THE PROS OF PROBIOTICS:

- ✓ *Help digestion*
- ✓ *Ward off bugs*
- ✓ *Treat high cholesterol*
- ✓ *Ease anxiety*
- ✓ *Alleviate allergies*

ALL WITH *NO* HARMFUL SIDE EFFECTS!

HOW PROBIOTICS WORK

Here's what happens after you ingest "good bacteria"

THEY TAKE UP TEMPORARY RESIDENCE IN YOUR GUT.
Probiotics don't move in permanently—you have to keep consuming them for maximum benefits. It requires about five days of habitual ingestion for probiotics to build up a presence, says Daniel J. Merenstein, M.D., a probiotics expert and an associate professor of family medicine at Georgetown University. (Taking them in less frequently may help a little.)

THEY SUSS OUT THE ENVIRONMENT.
Probiotics are smart. "Some of the ones that help with diarrhea also help with constipation. We think they go in, figure out what's needed and respond by either downregulating inflammation or upregulating your immune response," says Gregor Reid, Ph.D., director of the Canadian Research & Development Centre for Probiotics.

THEY NEGOTIATE WITH "TERRORISTS."
Most pathogens don't want to do real harm; they're happy to just eat and hang out. In layman's terms, probiotics might say, "We'll let you live, but you can't release your toxin." Then they might produce compounds that prevent a toxin's release, rendering bad bugs harmless, Reid says.

THEY IMPROVE THE GUT'S BARRIER.
"In your gut, only one layer of cells stands between you and death," Reid says. Although dramatic, that accurately describes your GI tract's ultrathin barrier, which allows nutrients from food to pass through and repels toxins. If that barrier is disrupted, pathogens could enter your bloodstream, making you very sick. Probiotics tighten the binding between cells and may stimulate mucus production, shoring up the barrier and making it difficult for problematic bugs to wreak havoc.

THEY CLEAN UP THE SLIME. "In the case of an infection, bacteria often create a biofilm, which is like the slime that builds up on the underside of a boat. Certain probiotics produce a soaplike material that breaks up that film," Reid says.

THEY STARVE OUT PATHOGENS.
Since they compete with the bad guys for food, probiotics keep harmful bacteria in check by making it hard for them to thrive.

KNOW THE BENEFITS

Two of the biggest reasons to take probiotics are to prevent or manage GI issues and to lower your odds of catching a bug. "If you're traveling or stressed, or not eating or sleeping well, that's when you'll notice that probiotics really work," Dr. Merenstein says. But newer research suggests that probiotics also have the potential to help prevent or treat other conditions, such as high cholesterol, allergies and even anxiety. Probiotics have such far-reaching effects because your gut does, too: It houses more nerve endings than any place in the body (besides the brain), and it's ground zero for your immune system's function. As you may know, to build a strong immune system, people need exposure to a wide variety of microorganisms, something modern-day Americans don't typically get. Plus, we use antimicrobials—found in some soaps and even toothpaste—that kill good bacteria as well as bad. Probiotics may fill the gap, says Hill. And unlike disease-causing germs, probiotics create almost no harmful side effects (some people experience gas or a change in bowel movements). Nearly everyone can take probiotics, but if you have a digestive disorder such as leaky gut or celiac disease, talk to a doctor first.

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FIND THE RIGHT STRAIN

A high dose of virtually any reputable probiotic has the potential to help you stay healthy. But if you're trying to solve a specific problem, try one that—per research—may help just what ails you. GH dug through studies to find your, uh, *pro*scription.*

YOUR PROBLEM	YOUR *PRO*SCRIPTION
You've got the runs. It could be stomach flu or food poisoning. Either way, it's definitely the pits.	*Florastor or Culturelle* Specific strains: Saccharomyces boulardii; Lactobacillus rhamnosus GG
The only thing regular about your GI function is that you regularly have constipation, bloating and/or diarrhea.	*Align, Activia yogurt or TruBiotics* Specific strains: Bifidobacterium infantis 35624; B. animalis subsp. lactis DN-173010; B. animalis subsp. lactis BB-12
You'll soon travel to a country with irresistible street food and subpar sanitation.	*Florastor* Specific strain: S. boulardii (Take the first dose five days before your trip, and continue taking it until two to three days after you return.)
You've been prescribed an antibiotic.	*Culturelle, Florastor, DanActive yogurt* Specific strains: L. rhamnosus GG; S. boulardii; L. casei DN-114 001
You're prone to bacterial vaginosis (a common vaginal infection).	*Fem-Dophilus; RepHresh Pro-B* Specific strains: A combination of L. rhamnosus GR-1 and L. reuteri RC-14
If someone within 100 feet of you sniffles or sneezes, you seem to catch his or her cold.	*DanActive yogurt, Culturelle* Specific strains: L. casei DN-114 001; L. rhamnosus GG

*Other probiotic strains and products can also help these conditions. For more information, go to scienceofprobiotics.ca and search for "Clinical Guide to Probiotic Supplements."

CHEAT SHEET

PROBIOTICS vs. PREBIOTICS

These aren't bacteria at all, but rather naturally-occurring soluble fibers (such as inulin and oligofructose) that feed the good bacteria already living in your gut, helping expand their populations. You get them through your diet (see "The Food Fix," *next page*).

vs. LIVE & ACTIVE CULTURES

A product with "Live & Active Cultures" on the label contains significant levels of beneficial bacteria and may include specific tested strains shown to have probiotic potential.

NAME GAME!

Bet you can't say a probiotic strain's name five times fast. Here's why: Probiotics have first, middle and last names, and—wait for it—they involve a lot of Latin! So what about those shorter, snappier names you see on some products? Manufacturers often develop proprietary strains and give them trademarked "nicknames." For example, Dannon renamed the probiotic in its Activia products "Bifidus Regularis," but its scientific name is Bifidobacterium lactis DN-173 010. It doesn't exactly roll off the tongue, but look closely: You'll see it hiding on the yogurt's label.

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GET THE MOST OUT OF YOUR PROBIOTIC

1 **TAKE IT CORRECTLY.** Know your dose. Probiotics are measured in CFUs (colony-forming units). Follow storage guidelines to a T; some need to be refrigerated.

2 **MAKE IT A DAILY HABIT.** If you don't take probiotics continually, the bacteria will leave your system. It's OK to miss a day here and there, but aim to take them at least five days a week.

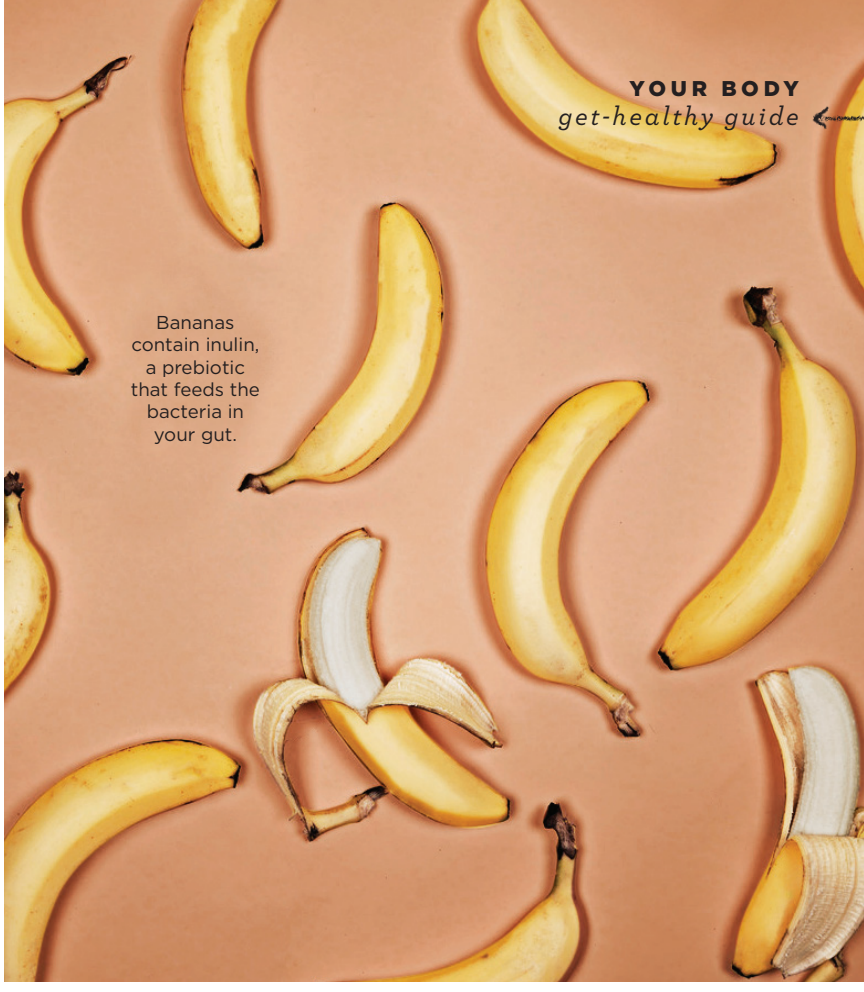
3 **ADD DAIRY.** Delivering the good bugs with food helps keep them alive on the trip through your stomach. Yogurt, milk and cheese in particular neutralize stomach acid and bile acid, increasing the probability that probiotics will reach the intestines.

4 **GO FOR QUALITY OVER QUANTITY.** A product with 10 different strains isn't necessarily superior to others with fewer, Reid says. You're better off with one strain in a formula that's been tested.

5 **TAKE MULTIPLE PRODUCTS IF NECESSARY.** For example, if you have IBS, try Align and then, to help resist colds, add DanActive yogurt. Ingest them at least a few hours apart.

6 **BE A BRAND SNOB.** Try the products in the GH chart (page 131); vet others at consumerlab.com. One report from the site found that five of the 19 products tested had only a fraction of the promised live bacteria.

7 **STAY THE COURSE.** It takes four to five days for probiotic levels to build up in your system, so don't expect instant results. If you're taking them for GI issues, it could be as long as three weeks before you feel a difference.



Bananas contain inulin, a prebiotic that feeds the bacteria in your gut.

THE FOOD FIX

Not into pills and powders? Extensive research supports the delivery of beneficial bacteria in many different forms, including through yogurt and fermented foods like kefir, sauerkraut and kimchi, says Tamara Melton, R.D. You can also increase the good bacteria in your gut by ingesting foods that contain prebiotics, which serve as nourishment for the good bacteria already living there. (Prebiotics are special because your body doesn't digest them until they reach the colon, where they become fermented.) You'll find prebiotics in high-fiber foods like bananas, oatmeal, beans and asparagus. And long-standing research has established that filling up on colorful fruits and veggies as well as whole grains is fundamental to boosting gut health.

From Our Nutrition Lab

EAT YOUR "GOOD BACTERIA"

KOMBUCHA

Keep sugar to 2 g per serving in this fermented tea.

Lab pick: Health-Ade Kombucha in Original, $5 for 16 oz.

YOGURT

Look for "Live & Active Cultures" on the label; limit sugar to 12 g per serving.

Lab pick: Fage 2% Plain Greek Yogurt, $1.50 for 7 oz.

KEFIR

Same rules as yogurt: The magic words are "Live & Active Cultures," and cap sugar at 12 g.

Lab pick: Lifeway Plain Kefir, $4 for 32 oz.

SAUERKRAUT

Go raw. The pasteurized kind does *not* contain live cultures.

Lab pick: Farmhouse Culture Classic Caraway Kraut, $8 for 22 oz.

Offset (top)