

**Featured Topic:**  
**Get Digestive Relief (and more) with Probiotics**  
**(5 slides)**

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# It All Starts with the Gut

- Our intestines contain trillions of microbes – tiny bacteria, fungi, and viruses – that make up our unique ‘microbiome’
- The microbiome does not just play a role in digestion!
- The makeup of our microbiome influences many body systems including:
  - Metabolism and risk of obesity
  - Mental function and risk of dementia
  - Colon cancer, depression, irritable bowel, high blood pressure, fatty liver, and even asthma!

# Probiotics Make Your Microbiome Healthier!

- Probiotics are **helpful bacteria**
  - Probiotics **prevent disease**, they don't cause it (bad bacteria are “pathogens”)
- Probiotics are **alive**
  - Live, active probiotics reproduce (replicate) to make more probiotics AND help the body fight against inflammation, harmful pathogens, and other diseases
- Probiotics are **normal residents** of the human intestinal tract
  - A baby receives its first exposure to probiotics from its mother when passing through the birth canal
    - Babies born via C-section have different microbes in their intestines than babies born via vaginal delivery and are at higher risk of obesity later in life

## 3 things probiotics do for you

- Reduce inflammation
- Strengthen the intestinal wall (reduce intestinal permeability)
- Influence the immune system
  - 70% of immune function comes from the intestines
- Plus: Aid in food digestion; keep harmful bacteria (pathogens) in check

# Some reasons to add probiotics

- Most well known benefit: **digestive issues**
  - 4 week clinical study (*Lactobacillus plantarum*): **reduced IBS symptoms** in 95% of those taking it versus only 15% of patients in the placebo group
  - Useful for any inflammatory digestive issue: bloating, gas, constipation/diarrhea, cramping from IBS, colitis, Crohn's, inflammatory bowel and more
- Other uses:
  - **Weight loss:** overweight women taking *Lactobacillus rhamnosus* for 12 weeks lost twice as much weight as women taking a placebo
  - **Recovery after colon surgery:** post-surgery colon cancer patients receiving probiotics had a 50% reduction in incidence of diarrhea and a 15% faster return of bowel function than patients taking placebo
  - **Eczema:** babies with eczema given probiotic (*Bifidobacterium bifidus*) had a 36% reduction in eczema symptom score versus only an 8% reduction in the placebo group
  - **Co-treatment with antibiotics:** 650 people treated with antibiotics and proton pump inhibitors for *H. pylori* infection; 15% more people in the probiotic group recovered completely, and had significantly fewer problems with nausea, gas, bloating, and diarrhea than the group receiving standard treatment only

## 3 things to think about when purchasing probiotic supplements

- Probiotics are alive – look for **guaranteed numbers at time of use**, not at “time of manufacture”
- The **right kind** is more important than a big number
  - Look for probiotics that are naturally found in the human gastrointestinal tract
    - Examples: *Lactobacillus plantarum*, *Lactobacillus rhamnosus*, and *Bifidobacterium bifidum*
- **Store them properly** – away from extreme heat and humidity

# **New Research on Curcumin (1 slide)**

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# Curcumin – protection against diabetes and Alzheimer's disease

- Researchers tested the effects of curcumin at reducing blood levels of 2 peptides (GSK-3beta and IAPP) associated with diabetes and Alzheimer's disease
- Obese individuals with insulin resistance at high risk of type 2 diabetes received either 180 mg of curcuminoids daily, or placebo, for 6 weeks
- Results – one of the markers went **up** in the placebo group and declined in the curcumin group; the second marker was four times lower in the curcumin group (versus placebo)
- Additionally, **fasting glucose** and **insulin levels** declined in the curcumin group versus no significant change in the placebo group

# Herb of the Day: Horsetail (4 slides)

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# Horsetail is a source of Silica

- *Horsetail* is a plant related to ferns
- It contains almost 80% silica – rich source of this mineral
- Silica is essential for bone formation/mineralization
- **Gets calcium into bones:** increases calcium absorption and retention in bones **by over 50%**
  - Stronger bones – less risk of fractures, faster recovery after a fracture
  - In an animal model of osteoporosis, supplemental silica was associated with a 30% increase in bone density

# Silica is not just for bones

- Silica is also required for collagen and connective tissue: hair, nails, and skin
- **Increases** collagen formation by **over 50%**
- In a study of women with fine hair, nine months of supplemental silica increased hair strength by almost 10%
- In women with sun-damaged skin, 20 weeks of silica treatment reduced skin roughness by almost 20%, and strengthened hair and nails

# What to know about silica

- Look for **plant-based** silica from horsetail
  - Did you know? Orthosilicic acid is synthetic, it is made from sand
  - Bamboo silica isn't easily absorbed – the silica molecules are much larger than silica from horsetail
- For skin, hair, nails, and basic bone support: take 20 mg daily
- If you have experienced a bone fracture, have osteoporosis, have had dental implants, or have any other bone concerns: 40 to 80 mg daily for 4 to 8 weeks

# Improved Absorption

- Proprietary extraction method – water and low temperature
  - discards the insoluble, abrasive compounds
  - Leaves silica bound to flavonoids, sugars, acids and phenols
    - much more soluble form
- Flavonoids enhance the solubility of the silica, increasing bioavailability
  - react with several intestinal transport systems to increase the cellular absorption of molecules bound to them
- Purification and marine lipids also increases absorption

**Taking Iron for Anemia?  
Add Zinc as Well  
(1 slide)**

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# Iron AND Zinc to treat anemia

- The most common type of anemia is iron-deficiency anemia
- However, people deficient in iron are also often frequently deficient in zinc
  - Zinc is critical for iron metabolism
- A recent study found that people who had both iron *and* zinc deficiency had worse heart and skin problems, and more cases of restless leg, than people deficient only in iron
- For better results in addressing iron deficiency anemia, consider adding 20-30 mg zinc (Bis-glycinate) daily

# A New Reason to “Think Positive” (1 slide)

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# Good Thoughts Keep Your Brain Healthy

- Negative thinking in later life is not good for your brain!
- Researchers studied a group of 350 people, all age 55 or older, for four years
  - They analyzed their mood – how often they dwelt on past problems or worried about the future, and if they had anxiety or depression
  - They also used brain scans to measure the level of protein deposits (associated with development of Alzheimer's disease) each person had developed
- Results: the people who spent more time thinking negative thoughts had **greater levels of protein buildup, worse memory and greater cognitive decline**
- **The researchers concluded that:** chronic negative thinking patterns over a long period of time can increase the risk of dementia

# **Vitamin K2 Reduces Your Risk of Heart Disease (1 slide)**

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# Vitamin K1 versus K2

- Which form of vitamin K is better for your heart – vitamin K1 or vitamin K2?
- Researchers followed almost 3,000 adults (ages 46-49) recording their diets and assessing their heart health, for 11 years
- Results: higher intake of vitamin K2 was associated with less instance of heart disease – there was no association for heart disease and vitamin K1 intake
- The study's lead author noted “these results mirror what we have seen in other studies – populations who consume a lot of dietary vitamin K2 have healthier hearts and more flexible arteries.”