



ProPectin® **Your Butyrate Source** How It Can Improve Brain Health and Enhance Your Mood

Butyrate plays an important role in maintaining a healthy environment in the gut.



What is Butyrate?

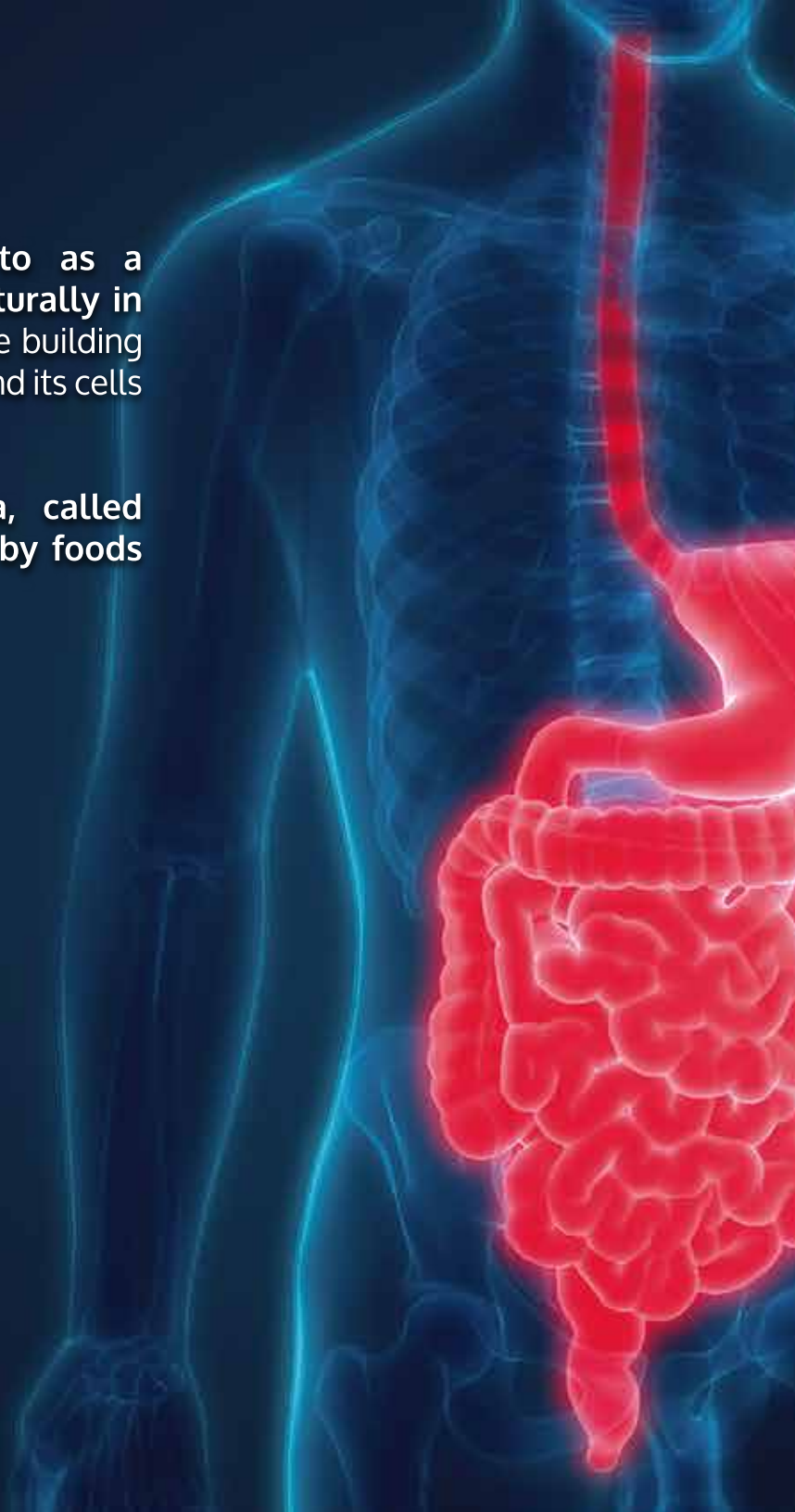
Butyrate is a molecule referred to as a short-chain fatty acid that occurs naturally in the body. Fatty acids are considered the building blocks of fats, or lipids, which the body and its cells cannot live without.

Butyrate is made by the bacteria, called Firmicutes, living in our gut, mostly by foods high in fiber.



ProPectin®

one of the best sources
of Fiber and Butyrate



A High Fiber Diet Helps to Support Butyrate Levels and Healthier Brain Function

Butyrate has been shown to benefit the body in many significant ways—from colon health to mitochondrial function—cutting-edge brain health research focusing on butyrate and its importance to brain health has recently been appearing in scientific journals¹.

Butyrate is used for energy, especially, by mucosal cells that line the wall of the colon. These cells get about 70 percent of their energy needs from butyrate. High fiber diets have been shown to increase butyrate circulating in the bloodstream, therefore supporting brain health.

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Pharmacologically, butyrate has had a profoundly beneficial effect on brain disorders ranging from neurodegenerative diseases to psychological disorders.

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Researchers have discovered that butyrate appears to have multiple modes of action in the brain, including:

Brain Cellular Health



by working as an HDAC (histone deacetylase) inhibitor by protecting the DNA wrapped around proteins called histones. Bourassa states it works to “promote the expression of prosurvival, proregenerative and proplasticity genes” and support brain cellular health by helping genes survive, adapt and grow rather than getting damaged.



Providing Immune benefits to the brain

when diets were enriched with soluble fiber to increase the probiotic population in the gut.



Promotes brain-derived neurotrophic factor (BDNF), a substance that increases the growth and differentiation of healthy neurons in the brain.



Sodium butyrate was able both to prevent and reverse the hyperactivity behavior and may support the formation of long-term memory.ⁱⁱ

Brain-derived neurotrophic factor is a
"Miracle-Gro for the brain"



Mechanisms where butyrate may influence brain health

by eating a high fiber diet

Histone
Acetylation



Mitochondrial
Activity



G-protein
Coupled
Receptors

Microbiome
Homeostasis



Butyrate and the bacterial organisms found in your gut have a dynamic relationship. As a short-chain fatty acid, butyrate is most commonly produced by probiotics (the good bacteria) found in the colon. To have enough butyrate you need to eat plenty of dietary fiber. That's because certain probiotics use dietary fiber as their food source for producing butyrate and other beneficial substances.

One of the best sources of fiber is apple pectin. And one of the best sources of apple pectin is ProPectin®

ProPectin® has four important advantages over other apple pectin products:

- ✓ It is the only product that is pharmaceutical-grade apple pectin.
- ✓ It is the only product that can provide a daily dose of up to 9 grams of high-grade apple pectin due to a 6-step patented process and formula
- ✓ It is the only product that is 100 percent soluble, which results in a significantly higher absorption rate
- ✓ And, it tastes great—like delicious mild apple nectar

250Kg
of Apples
=
1 Kilo
of ProPectin®

4.5 x
Times more effective
than any other pectin
product on the
market.

Consuming



=

Per Day

You'll receive

9 grams
of Fiber

In the form of pharmaceutical-grade
apple pectin that "can help support
healthy butyrate levels"



ORDER YOUR SUPPLY NOW

www.propectin.com