



GUT MORNING!

GOOD GUT, GOOD LIFE

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NOURISH. REPLENISH. SUPPORT. NOURISH. REPLENISH. SUPPORT. NOURISH. REPLENISH. SUPPORT. NOURISH. REPLENISH. SUPPORT.

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Achieving Optimal Health

Optimal health is complete physical, mental, and social wellbeing. Modern lifestyles often neglect exercise, nutrition and self-care, which impacts overall wellbeing.

Health Begins In The Gut

Gut health is crucial for overall wellbeing. It affects digestion, nutrient absorption, waste elimination, stress, weight, immunity, performance and skin health.



HEALTH BEGINS IN THE GUT. HEALTH BEGINS IN THE GUT.



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What Is “The Gut”?

The gut includes the entire gastrointestinal (GI) tract: mouth, esophagus, stomach, small intestine, large intestine and anus.

It functions as the body's engine room, breaking down food, absorbing nutrients and eliminating waste. It ensures that your body is well-nurtured and functioning smoothly.





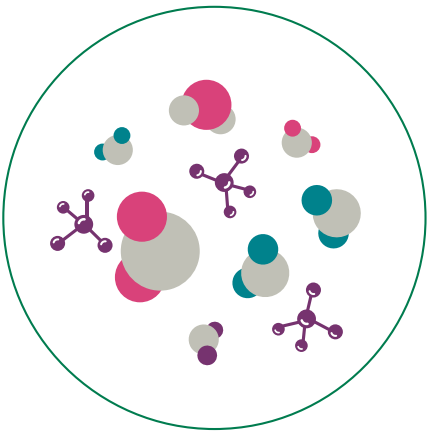
What Is Gut Microbiome?



The gut houses trillions of microorganisms, like bacteria, viruses and fungi, that influence digestion, immunity and overall health.



Each person's gut microbiome is unique and affects how we respond to food, medication, and our environment. It can be changed by diet and lifestyle.



Your gut microbiome influences the immune system, aids in nutrient metabolism and responds differently to foods and supplements.



DID YOU KNOW?

Our body contains around 40 trillion microbiome, with 95% residing in the gut.

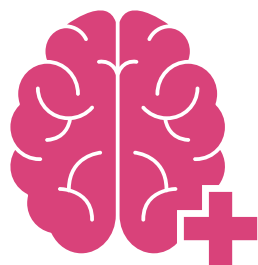




Key Functions Of The Gut Microbiome

The gut microbiome is responsible for more than just harvesting energy from food; it also produces crucial compounds like neurotransmitters, enzymes, and vitamins, which are essential for brain, immune, and metabolic functions.

BRAIN HEALTH



- Produces neurotransmitters (serotonin, dopamine) for mood and cognitive function.
- Influences brain function and behaviour, impacting conditions like depression and anxiety.

CARDIOVASCULAR HEALTH

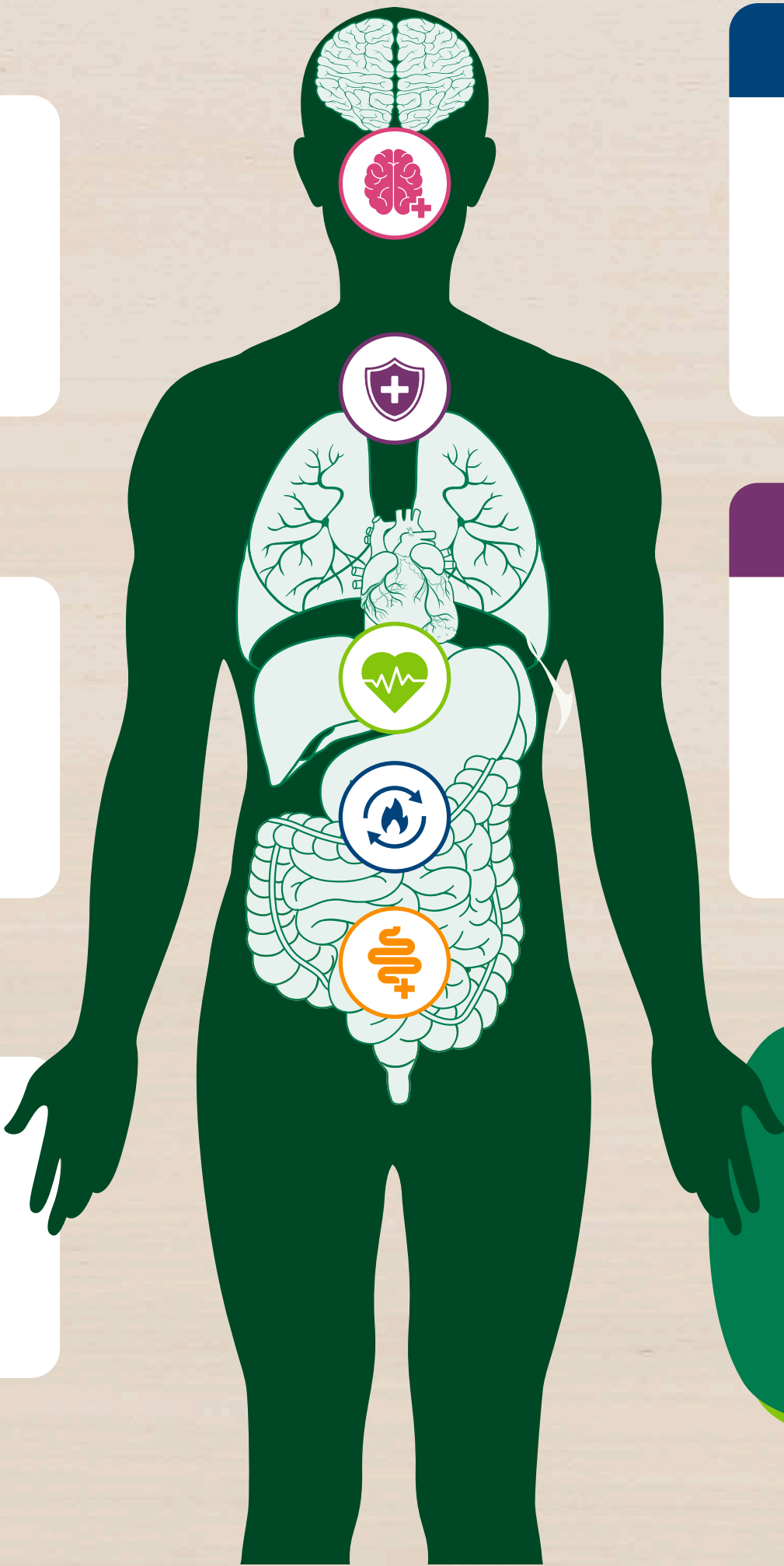


- Converts dietary fibers into short-chain fatty acids (SCFAs), reducing cholesterol and heart disease risk.
- Reduces systemic inflammation, lowering the risk of hypertension, heart attacks and strokes.

GUT HEALTH



- Supports the intestinal barrier, preventing leaky gut syndrome and inflammatory bowel disease.
- Produces antimicrobial compounds that protect against infections and maintain gut health.



METABOLISM



- Breaks down complex food molecules, aiding nutrient absorption and overall metabolism.
- Influences responses to foods and supplements.
- Supports effective weight management.

IMMUNITY



- Teaches our immune system to differentiate between harmful and harmless entities, preventing unnecessary immune responses and inflammation.

DID YOU KNOW?

The gut microbiome is often referred to as your Second Genome. While we can't change the genes we inherit from our parents—our First Genome—we can influence our Second Genome by enhancing our gut microbiome.

This means you can transform your health by prioritising gut health.



Gut Microbiome And Overall Health

The gut microbiome is a dynamic system that can change over time, impacting overall health. A diverse gut microbiome is crucial for a resilient and healthy gut, which supports overall wellbeing. Maintaining a balanced microbiome is key to optimal health.





A Healthy Gut = A Healthy You



EXPERIENCE THE BENEFITS OF GUT MORNING BOOSTERS



SUSTAIN OPTIMAL HEALTH



OPTIMISE GUT HEALTH



ENHANCE CONCENTRATION AND FOCUS



BOOST ENERGY LEVELS

1 SHAKE, EVERY MORNING, FOR LIFE! 1 SHAKE, EVERY MORNING, FOR LIFE!





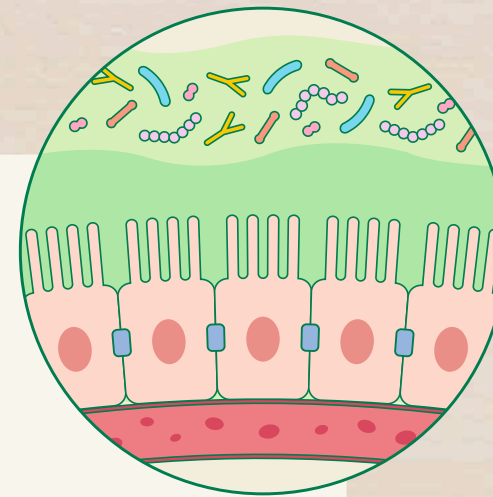
Gut Morning Boosters Support A Healthy Gut Foundation

The gut is a complex system with multiple layers crucial for overall health. The gut barrier acts as a defense between the gut microbiome and intestinal cells.

The **gut barrier** includes the mucosal lining and a protective mucus layer. It prevents harmful bacteria and toxins from entering the bloodstream while allowing beneficial nutrients to be absorbed.

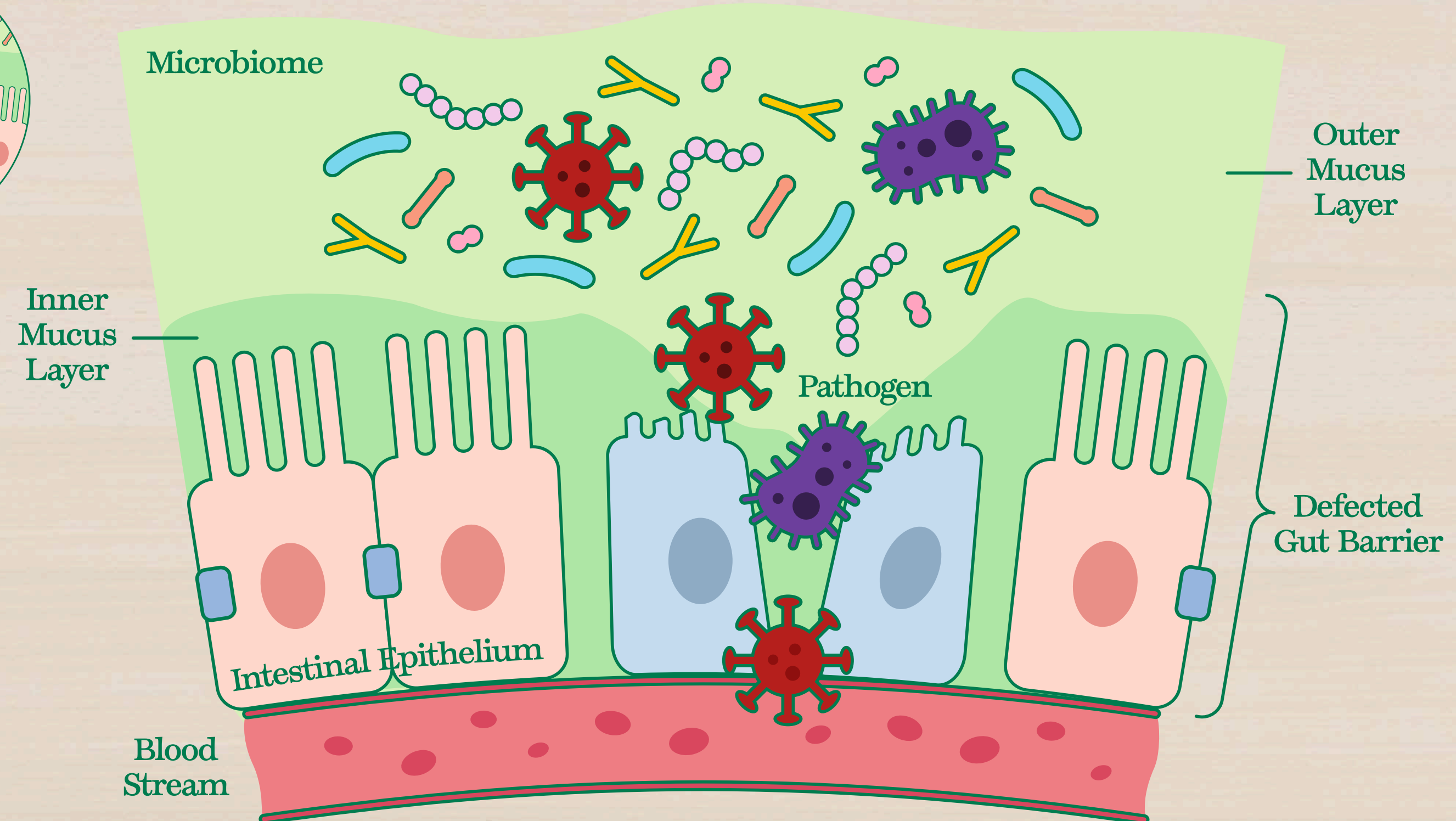
The **gut lining**, made of epithelial cells held together by proteins, helps absorb nutrients and separates gut contents from the body. It prevents pathogens from causing harm. **Proteins** are essential for maintaining and repairing this lining, preventing "leaky gut syndrome."

Dietary fiber, especially from plants, supports the growth of **probiotics** in the gut. These beneficial bacteria produce short-chain fatty acids (SCFAs) that nourish the gut lining and promote overall gut health.



Intestinal Dysfunction

An unhealthy gut, often referred to as leaky gut, is characterized by an imbalanced microbiome and gaps in the gut lining, which allow toxins and pathogens to enter the bloodstream, leading to inflammation.





Gut Morning Boosters Support A Healthy Gut Foundation



PROBIOTIC

NOURISH
good, live bacteria in your gut with probiotics and help fend off harmful bacteria



FIBER

REPLENISH
the good bacteria in your gut with prebiotics

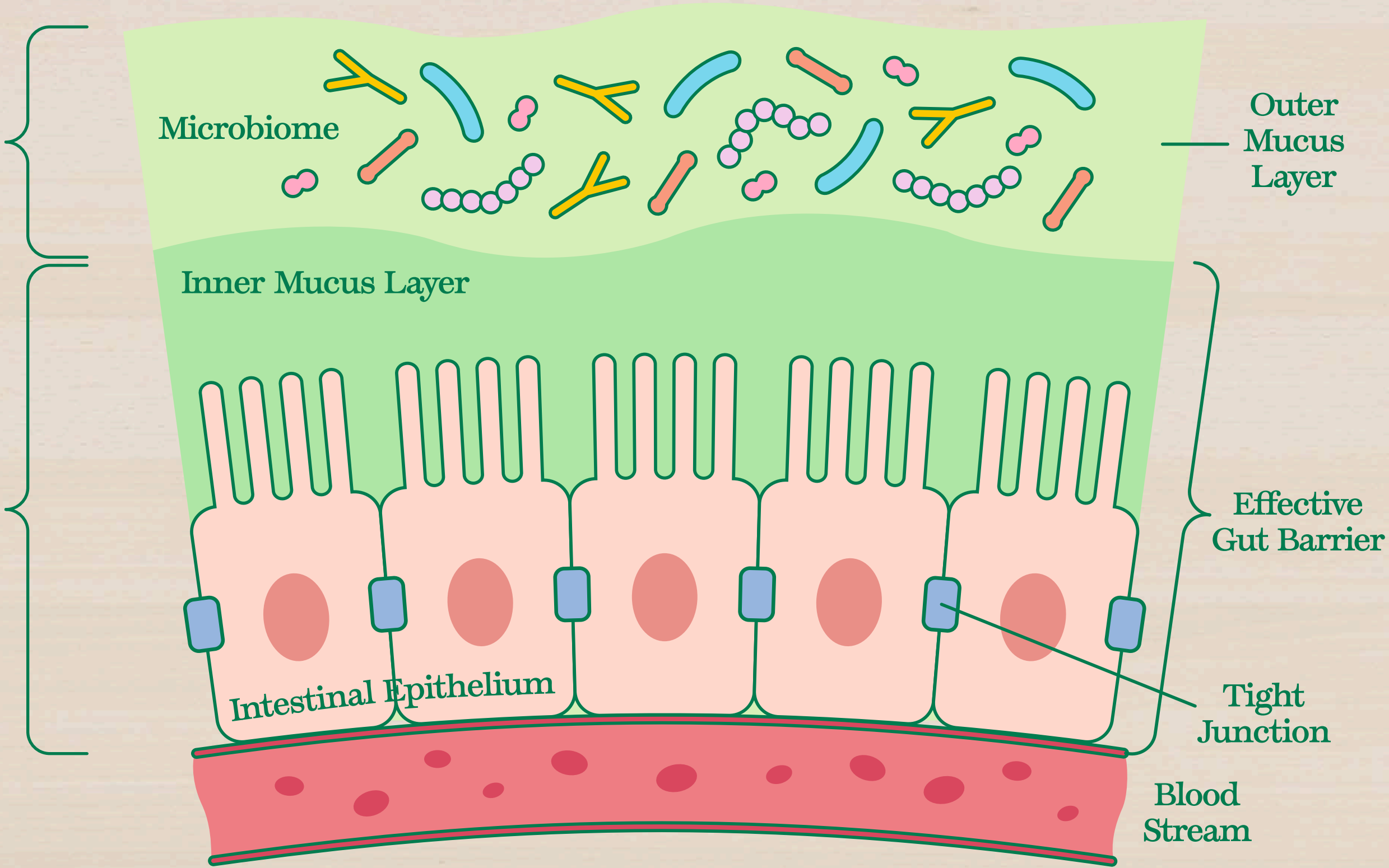


PROTEIN

SUPPORT
overall cell repair & regeneration, and support your gut lining

Healthy Intestinal Function

A healthy gut features a robust lining that blocks pathogens from entering the bloodstream, a diverse microbiome, and ample nourishment from probiotics and prebiotics.





Your Body Needs Protein



To repair tissues, support growth, and maintain healthy skin



To enhance concentration



To regulate glucose levels



To maintain the gut lining



According to Singapore National Nutrition Survey 2022,



More than **20%** of Singaporean adults



50% of older adults aged 50 to 69 years

are **NOT** meeting their daily recommended **protein intake**.



How Much Protein Do We Need?

Each person's protein needs depend on several factors:

- 1 GENDER
- 2 AGE
- 3 BODY WEIGHT
- 4 LEVEL OF ACTIVITY

GENERAL RECOMMENDED DIETARY ALLOWANCE (RDA)

$\text{Body Weight (kg)} \times 0.8\text{g} = \text{Your Daily Protein Needs (g)}$

AGE 50 & ABOVE

$\text{Body Weight (kg)} \times 1.2\text{g} = \text{Your Daily Protein Needs (g)}$



AGES 1 - 9
CHILDREN
17-32g



AGES 10 - 19
ADOLESCENTS
45-65g



AGES 20 & ABOVE
ADULTS
51-62g



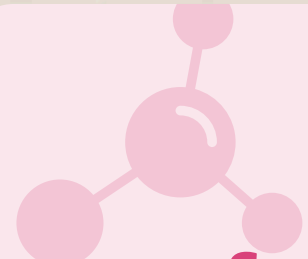
All Plant Protein Strengthens Gut Health

Regular consumption of plant protein promotes a diverse gut microbiome. **Nutriline™ All Plant Protein**, rich in fiber and nutrients, fosters beneficial gut bacteria and provides all 9 essential amino acids crucial for gut health.



Nutriline All Plant Protein

-  One 10g serving provides 8g of protein and all 9 essential amino acids your body needs
-  Supports overall cell repair & regeneration, and supports your gut lining
-  Contains high quality protein value
PDCAAS = 1
Protein Digestibility Corrected Amino Acid Score Complete Protein
-  Preserves your lean muscle mass and leaves you feeling full for longer
-  Free from cholesterol and saturated fat



Key Amino Acids from All Plant Protein:



Supports gut immune function



Supports gut barrier



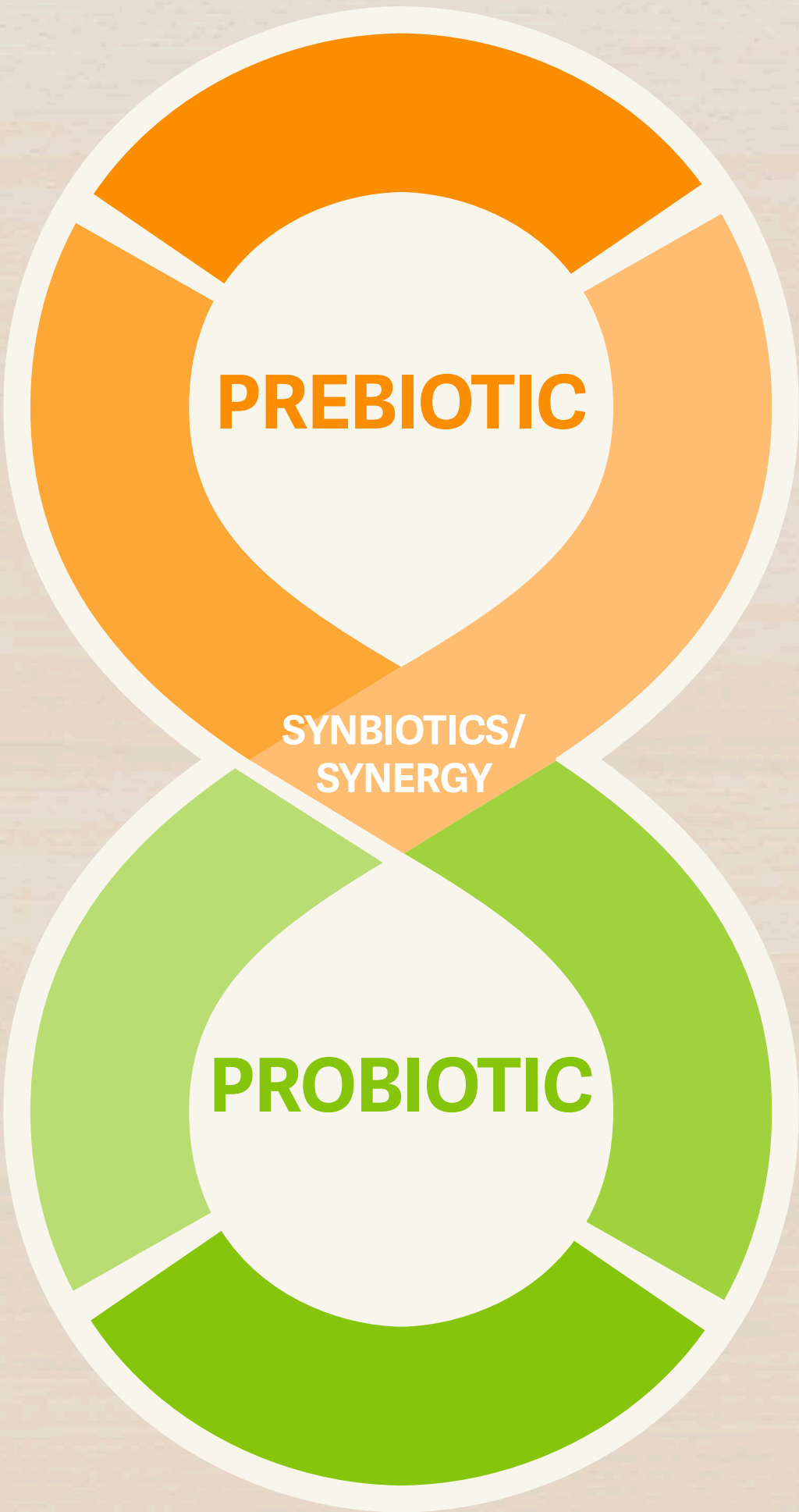
Addresses gut inflammation



Choose Your Perfect Protein Drink:
All-Plant Protein, Mixed Berries, Green Tea, Chocolate, or Joint Booster with Protein.



Fortify Your Gut Microbiome With Prebiotic And Probiotic



Prebiotics are types of fiber that our bodies cannot digest. They serve as a food source for beneficial bacteria residing in our gut.

BENEFITS

- ✓ Enhance growth of good gut bacteria
- ✓ Enhance production of SCFAs
- ✓ Improve lipid metabolism
- ✓ Improve nutrient absorption
- ✓ Improve intestinal barrier and immunity

Probiotics are live microorganisms known to support gut health by improving gut barrier function and interacting with gut microbiome.

BENEFITS

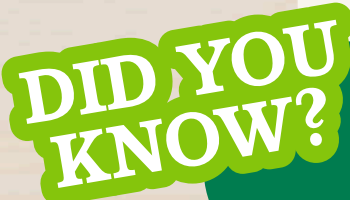
- ✓ Improve intestinal barrier
- ✓ Stimulate immune response
- ✓ Favour beneficial metabolites - SCFAs
- ✓ Inhibit pathogenic bacteria
- ✓ Regulate glycemic control
- ✓ Healthy impact on brain

SCFAs - Short-chain fatty acids



NUTRILITE MIXED FIBER POWDER

- Replenishes good gut bacteria, serving as food for probiotics to maintain balance.
- Contains a unique blend of 3 plant-based soluble fibers.
- Each serving provides 4.5g of fiber to support daily intake and gut health.

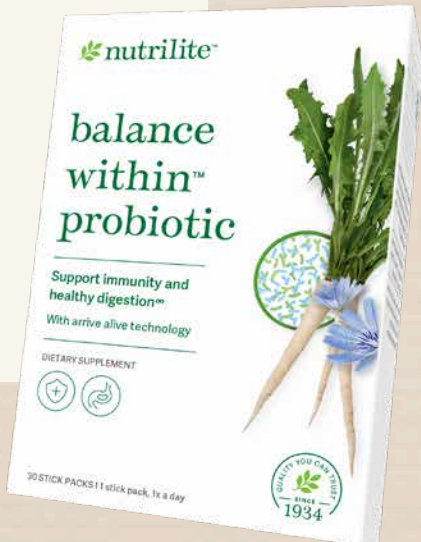


The average Singaporean consumes only 13 grams of dietary fiber daily, which is less than half of the recommended 30 grams.



NUTRILITE BALANCE WITHIN™ PROBIOTIC

- Nourishes and supports the growth of good bacteria in your gut.
- Utilizes 2 highly researched strains for a healthy gut microbiome.
- Uses "Arrive Alive" and "Stick To The Gut" technology to ensure live probiotics reach your gut and anchor effectively.
- Delivers 6.3 billion CFUs of good bacteria from a blend of 5 probiotic strains.





Impact Of Overnight Fasting: What Happens To Your Body During Sleep?



Lose 0.5 – 1 L of water through breath, sweat and urine.



Synthesize new memories and integrate them with existing memories.



Slower heartbeat, lower blood pressure & temperature.



The digestive system, including the movement of the intestines, slows down.



Metabolic rate can drop by around 15% due to physical inactivity.



Protein gets depleted for muscle formation, repair and maintenance.

After the body undergoes restorative processes during sleep, it needs replenishment to function optimally. **Breakfast, the first meal of the day, breaks the overnight fast, providing essential nutrients and energy.**

4 Proven Benefits of a Nutritious Breakfast:



Boosts physical activity
Provides stamina and energy for morning activities and exercise.



Enhances calorie burning
Boosts metabolism, leading to more calories burned throughout the day.



Promotes healthy gut environment
A fiber and probiotic-rich breakfast supports gut health, influencing digestion and immune function.



Sharpens mental focus
Improves cognitive function, memory and concentration for better productivity.



Taking Care Of Your Gut Starts With Morning Nutrition

Research indicates that circadian rhythms regulate crucial processes such as metabolism, sleep, and hormone secretion. Meal timing is important; eating late in the day can cause metabolic issues. To start the day right, breakfast should be consumed within 2 to 3 hours of waking, ideally by 10am.

THE IMPORTANCE OF MORNING NUTRITION:



Lower likelihood of being overweight or obese



Metabolic balance



Greater diet quality and nutrient adequacy



Lower risk of developing type 2 diabetes & cardiovascular disease

GUT MICROBIOME IS ACTIVE IN THE MORNING, SUPPORTING:



Cell growth



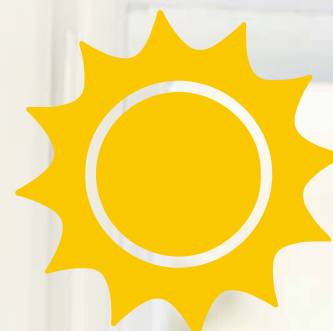
Energy metabolism



DNA repair



Digestion and nutrient absorption





Complete Your Morning Nutrition

Begin Your Day With Gut Morning

The Foundation of A Healthy Body for All Life Stages & Lifestyles

1

Fortify gut with prebiotic and probiotic

Gut Morning Boosters

2

Replenish depleted protein

Wake up your gut with mineral-rich water

Clean drinking water is a key pillar to health and wellbeing

3

Make your Morning Nutrition more nutritious, filling & satisfying

BodyKey Meal Replacement Shake

- ✓ Each serving contains 22 vitamins & minerals, 17g plant protein, 5g fiber, 370mg calcium
- ✓ Low in calorie, only 205 calories
- ✓ Available in 3 delicious flavours: Cafe Latte, Chocolate, Berry

Well Balanced Meal that keeps you energized!

1 SHAKE, EVERY MORNING, FOR LIFE!

Take Once At Night Too

Essential for muscle building, cell repair & regeneration and helps promote quality sleep

Recommended Serving Size

2 scoops
Nutriline All Plant Protein
(or any other flavour)

1 stick pack
Nutriline Mixed Fiber Powder

1 stick pack
Nutriline Balance Within Probiotic

1 pouch
Bodykey Meal Replacement pouch

Mix well & enjoy!

TAKE IN THE MORNING

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Embracing Gut Morning As Part Of Your Health & Wellbeing Journey

Start your day with Gut Morning Boosters and pair them with healthy habits to support your gut health.

Stay Hydrated
Drink at least 8 glasses of clean water each day



Healthy Eating
With My Healthy Plate throughout the day

Adopt Healthy Habits
30 minutes x 5 days & strength training x 2 days



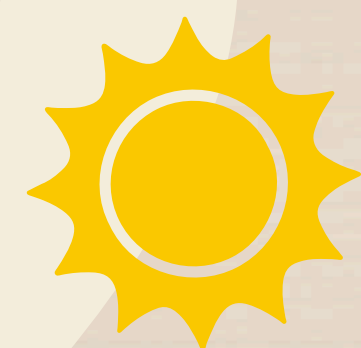
GUT MORNING!
GOOD GUT, GOOD LIFE



Sleep
7-9 hours per night



Mindfulness
Reduce stress & improve mental resilience





3-Step Personalised Health Solution Map to Optimised Health & Wellbeing

While you have started to experience the health benefits of taking Gut Morning Boosters every morning, you can further enhance your health and wellbeing by addressing specific healthspan targets with Nutrilite's science-based personalised health solutions.

1 BALANCE

Protein & gut microbiome foundation for optimal health



GUT MORNING – BEGIN YOUR DAY WITH GUT MORNING BOOSTERS



BALANCE WITHIN™ PROBIOTIC
NOURISH
good, live bacteria in your gut with probiotics and help fend off harmful bacteria



MIXED FIBER POWDER
REPLENISH
the good bacteria in your gut with prebiotics



ALL PLANT PROTEIN POWDER
SUPPORT
overall cell repair & regeneration, and support your gut lining

2 FILL

ESSENTIAL

Fill essential micronutrient, macronutrient, and phytonutrient gaps in your diet



Advanced Omega



Double X Multivitamin

3 TARGET

specific short-term and long-term healthspan support



The personalised health solution list includes options, but it's not exhaustive.



Make Your Gut Morning Boosters Enjoyable

Make your mornings more exciting with Gut Morning Boosters by blending your favourite fruits and vegetables into delicious smoothies tailored to your taste!




**CHOCO
BLISS**

- **Nutriline All Plant Protein Powder** – 2 scoops
- **Nutriline Mixed Fiber Powder** – 1 stick pack
- **Nutriline Balance Within Probiotic** – 1 stick pack
- **BodyKey Meal Replacement Shake Chocolate** – 1 pouch
- **Medium-sized Banana** – 1.5 pieces
- **Cold Water** – 450 ml




**BERRY
BURST**

- **Nutriline All Plant Protein Powder** – 2 scoops
- **Nutriline Mixed Fiber Powder** – 1 stick pack
- **Nutriline Balance within Probiotic** – 1 stick pack
- **BodyKey Meal Replacement Shake Berry** – 1 pouch
- **Frozen Mixed Berries** – 2 tablespoons
- **Nutriline Phyto Mix Drink*** – 1 sachet
- **Cold Water** – 450 ml




**GREEN
GOODNESS**

- **Nutriline All Plant Protein Powder** – 2 scoops
- **Nutriline Mixed Fiber Powder** – 1 stick pack
- **Nutriline Balance within Probiotic** – 1 stick pack
- **BodyKey Meal Replacement Shake Chocolate** – 1 pouch
- **Medium-sized Green Apple** – 1 piece
- **Medium-sized Carrot** – ½ piece
- **Grated Fresh Ginger** – ¼ teaspoon
- **Cold Water** – 450 ml

* Nutriline Phyto Mix Drink is exclusively available for purchase through Gut Morning Boosters only and is not available for individual purchase. While stocks last.

The Gut Morning Boosters smoothies recipe provided above is for reference only. If you have any medical condition or are taking any medication, please consult your doctor before making any significant changes to your diet, including incorporating Gut Morning Boosters smoothies into your daily diet plan.



- National Institute of Diabetes and Digestive and Kidney Diseases
- Belkaid, Y., & Hand, T. W. (2014). Role of the microbiota in immunity and inflammation. *Cell*, 157(1), 121-141.
- Reimann, F., & Tolhurst, G. (2012). G protein-coupled receptors in nutrient sensing. *Annual Review of Physiology*, 74, 1-20.
- Sender, R., Fuchs, S., & Milo, R. (2016). "Revised estimates for the number of human and bacteria cells in the body." *PLOS Biology*, 14(8), e1002533.
- Mayer, E. A., Knight, R., Mazmanian, S. K., Cryan, J. F., & Tillisch, K. (2014). Gut microbes and the brain: Paradigm shift in neuroscience. *Journal of Neuroscience*, 34(46), 15490-15496.
- Structure, function and diversity of the healthy human microbiome" - *Nature*, 2012
- The human microbiome: at the interface of health and disease" - *Nature Reviews Genetics*, 2012
- Lloyd-Price, J., Mahurkar, A., Rahnavard, G., Crabtree, J., Orvis, J., Hall, A. B., ... & Huttenhower, C. (2017). Strains, functions and dynamics in the expanded Human Microbiome Project. *Nature*, 550(7674), 61-66.
- Cryan JF, Dinan TG. Mind-altering microorganisms: the impact of the gut microbiota on brain and behaviour. *Nat Rev Neurosci*. 2012 Oct;13(10):701-12.
- Vaziri ND, et al. Chronic kidney disease alters intestinal microbial flora. *Kidney Int*. 2013 Mar;83(2):308-315.
- Buffie CG, Pamer EG. Microbiota-mediated colonization resistance against intestinal pathogens. *Nat Rev Immunol*. 2013 Oct;13(11):790-801
- Koh A, De Vadder F, Kovatcheva-Datchary P, Bäckhed F. From Dietary Fiber to Host Physiology: Short-Chain Fatty Acids as Key Bacterial Metabolites. *Cell*. 2016 Jun 2;165(6):1332-1345.
- Tang WHW, Kitai T, Hazen SL. Gut Microbiota in Cardiovascular Health and Disease. *Circ Res*. 2017 Feb 3;120(7):1183-1196.
- Gut microbiota's effect on the immune system: a good friend and an important advisor in our immune system." *Frontiers in Immunology*, 2012.
- Gut microbiota: linking inflammation to obesity and metabolic syndrome." *Journal of Clinical Investigation*, 2007
- Personalized nutrition by prediction of glycemic responses." *Cell*, 2015.
- Lozupone, C. A., et al. "Diversity, stability and resilience of the human gut microbiota." *Nature*, 2012.
- Sonnenburg, E. D., and Sonnenburg, J. L. "Starving our microbial self: The deleterious consequences of a diet deficient in microbiota-accessible carbohydrates." *Cell Metabolism*, 2014.
- Rook, G. A. W. "Regulation of the immune system by biodiversity from the natural environment: An ecosystem service essential to health." *Proceedings of the National Academy of Sciences*, 2013.
- Blaser, M. J. "Antibiotic use and its consequences for the normal microbiome." *Science*, 2016.
- Yatsunenko, T., et al. "Human gut microbiome viewed across age and geography." *Nature*, 2012.
- Groschwitz KR, Hogan SP. "Intestinal barrier function: molecular regulation and disease pathogenesis." *J Allergy Clin Immunol*. 2009;124(1):3-20.
- Turner JR. "Intestinal mucosal barrier function in health and disease." *Nat Rev Immunol*. 2009;9(11):799-809.
- Wang Y, et al. Maintenance of intestinal homeostasis and integrity: lipopolysaccharide and beyond. *Toxins (Basel)*. 2015 May;7(5):1828-1846.
- Roberfroid M, et al. Prebiotic effects: metabolic and health benefits. *Br J Nutr*. 2010 Nov;104(S2)
- Vaziri ND, et al. Chronic kidney disease alters intestinal microbial flora. *Kidney Int*. 2013 Mar;83(2):308-315.
- Shreiner, A. B., Kao, J. Y., & Young, V. B. (2015). The gut microbiome in health and in disease. *Current Opinion in Gastroenterology*, 31(1), 6
- Sanders, M. E., Merenstein, D. J., Reid, G., Gibson, G. R., & Rastall, R. A. (2019). Probiotics and prebiotics in intestinal health and disease: from biology to the clinic. *Nature Reviews Gastroenterology & Hepatology*, 16(10), 605-616.9-75.
- Gibson, G. R., Hutkins, R., Sanders, M. E., Prescott, S. L., Reimer, R. A., Salminen, S. J., ... & Reid, G. (2017). The International Scientific Association for Probiotics and Prebiotics (ISAPP) consensus statement on the definition and scope of prebiotics. *Nature Reviews Gastroenterology & Hepatology*, 14(8), 491-502.
- Wu, G. (2016). Dietary protein intake and human health. *Food & Function*, 7(3), 1251-1265.
- Martinez I, Kim J, Duffy PR, et al. "Resistant starches types 2 and 4 have differential effects on the composition of the fecal microbiota in human subjects." *PLoS One*. 2010;5(11)
- Camilleri M. "Integrated upper gastrointestinal response to food intake." *Gastroenterology*. 2006;131(1):640-658.
- Stoll B, et al. "Valine metabolism in the intestine of the neonatal piglet." *Am J Physiol Endocrinol Metab*. 1998;274(3)
- Roager HM, Licht TR. "Microbial tryptophan catabolites in health and disease." *Nat Commun*. 2018;9(1):3294.
- Wu G. "Functional amino acids in nutrition and health." *Amino Acids*. 2013;45(3):407-411.
- Koizumi S, et al. "Histidine modulates the inflammatory response." *J Biol Chem*. 2019;294(28):11557-11566.
- Pérez-Burgos A, et al. "Influence of tyrosine on the stress response and gut-brain axis." *Neurogastroenterol Motil*. 2015;27(4):443-452.
- Van der Hulst RR, et al. "Glutamine and the preservation of gut integrity." *Lancet*. 1993;341(8857):1363-1365.
- Wang W, et al. "Glycine and gut health: a review of the effects of glycine on intestinal function and health." *J Anim Sci Biotechnol*. 2019;10:45.
- Plaza-Díaz J, et al. "Mechanisms of action of probiotics." *Adv Nutr*. 2019;10(Suppl 1)
- Hill C, et al. "Expert consensus document: The International Scientific Association for Probiotics and Prebiotics consensus statement on the scope and appropriate use of the term probiotic." *Nat Rev Gastroenterol Hepatol*. 2014;11(8):506-514.
- Ríos-Covián D, et al. "Intestinal Short Chain Fatty Acids and their Link with Diet and Human Health." *Front Microbiol*. 2016;7:185. Link
- Gibson GR, et al. "Dietary prebiotics: current status and new definition." *Food Sci Technol Bull Funct Foods*. 2010;7(1):1-19.
- Slavin JL. "Fiber and prebiotics: mechanisms and health benefits." *Nutrients*. 2013;5(4):1417-1435.
- Kellow NJ, et al. "Prebiotics: the influence on physiological and pathological processes." *Nutrients*. 2014;6(10):4094-4111.
- Davani-Davari D, et al. "Prebiotics: Definition, Types, Sources, Mechanisms, and Clinical Applications." *Foods*. 2019;8(3):92.
- Kelly G. "Inulin-type prebiotics—a review: part 1." *Altern Med Rev*. 2008;13(4):315-329.
- Scheer FAJL, et al. "Adverse metabolic and cardiovascular consequences of circadian misalignment." *Proc Natl Acad Sci USA*. 2009 Mar;106(11):4453-4458.
- Cahill LE, et al. "Prospective study of breakfast eating and incident coronary heart disease in a cohort of male US health professionals." *Circulation*. 2013 Jul;128(4):337-343.
- Deshmukh-Taskar PR, et al. "The relationship of breakfast skipping and type of breakfast consumption with nutrient intake and weight status in children and adolescents: the National Health and Nutrition Examination Survey 1999-2006." *J Am Diet Assoc*. 2010 Jun;110(6):869-878.
- Thaïss CA, et al. "Microbiota Diurnal Rhythmicity Programs Host Transcriptome Oscillations." *Cell*. 2014 Nov;159(3):514-529.
- Cheuvront, S. N., et al. (2010). Water turnover and body water variations in humans. *Journal of Exercise Science & Fitness*, 8(1), 1-10.
- Rasch, B., & Born, J. (2013). About sleep's role in memory. *Physiological Reviews*, 93(2), 681-766.
- Brandenberger, G., et al. (2005). Cardiovascular responses associated with changes in the sleep-wake state. *Sleep Medicine Reviews*, 9(4), 333-346.
- Bonaldo, P., & Sandri, M. (2013). Cellular and molecular mechanisms of muscle atrophy. *Disease Models & Mechanisms*, 6(1), 25-39.
- Thaïss, C. A., et al. (2014). Microbiota diurnal rhythmicity programs host transcriptome oscillations. *Cell*, 159(3), 514-529.
- Schulz, H., & Steiger, A. (2019). Sleep and gastroenterology: A bidirectional relation. *Best Practice & Research Clinical Gastroenterology*, 41-42, 101674.
- Shechter, A., et al. (2013). Effects of acute sleep restriction on daytime sympathetic nervous system activity and food intake in healthy men. *American Journal of Physiology-Endocrinology and Metabolism*, 302(1), E58-E67.
- Clayton DJ, et al. "Effect of breakfast omission on energy intake and evening exercise performance." *Med Sci Sports Exerc*. 2015 Jan;47(2):293-301.
- Betts JA, et al. "The causal role of breakfast in energy balance and health: a randomized controlled trial in lean adults." *Am J Clin Nutr*. 2014;100(2):539-547.
- Conlon MA, Bird AR. "The impact of diet and lifestyle on gut microbiota and human health." *Nutrients*. 2015 Jan;7(1):17-44
- Hoyland A, et al. "A systematic review of the effect of breakfast on the cognitive performance of children and adolescents." *Nutr Res Rev*. 2009 Jun;22(2):220-243.



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YEARS OF GROWTH

