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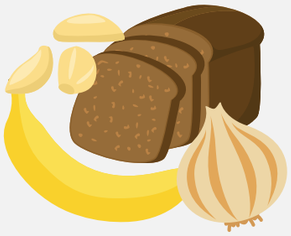
Gut Health Heroes:
The Power Trio of Prebiotics, Probiotics, & Postbiotics

Prebiotics, probiotics, and postbiotics work together to support our health in and out of our gut, which is crucial for overall well-being. This guide provides insight into the definitions, functions, and sources of each type of biotic as well as how they work together.

	PREbiotics [1,2]	PRObiotics [2,3]	POSTbiotics [4]
DEFINITION	**Non-digestible** dietary components that **serve as food** for beneficial bacteria (i.e. probiotics) present in the gut.	**Live beneficial bacteria** present in our gut that contribute to a **healthy digestive system.**	**Inactive bacteria** (and potentially their components) that provide a **health benefit.**
FUNCTION	Help **promote growth & activity** of beneficial gut bacteria, which can improve **digestion & overall gut health.**	Help maintain a **healthy balance** of gut bacteria, which can aid **digestion, support immune function,** and **enhance nutrient absorption.**	Various health benefits, such as supporting **gut barrier function** and **immune function** as well as **reducing inflammation.**
SOURCES	**Fiber-rich foods** such as bananas, whole grains, garlic, and onions 	**Some fermented products** that contain microbes meeting 'probiotic' criteria. Ex: probiotic containing yogurt, oats, and/or milk. **Note**: probiotics can also be added to supplements or non-fermented foods (i.e. fruit juice, cereal bars) 	May be included in **some infant formulas or specific fermented foods** with heat-inactivated strains (usually supplemented or added). 
	Think of prebiotics as the **ENERGY (pre)** provided to probiotics so they can provide health benefits.	Think of probiotics as living **ORGANISMS (pro)** that are active & energized by prebiotics.	Think of postbiotics as what is present **AFTER (post)** bacteria dies that provides health benefits.

References:
1. Davani-Davari D, Negahdaripour M, Karimzadeh I, et al. Prebiotics: Definition, Types, Sources, Mechanisms, and Clinical Applications. Foods. 2019;8(3):92. Published 2019 Mar 9. doi:10.3390/foods8030092.
2. Swanson KS, Gibson GR, Hutkins R, et al. The International Scientific Association for Probiotics and Prebiotics (ISAPP) consensus statement on the definition and scope of synbiotics. Nat Rev Gastroenterol Hepatol. 2020;17(11):687-701. doi:10.1038/s41575-020-0344-2
3. National Institute of Health (NIH) Office of Dietary Supplements (ODS). Probiotics. Updated Mar 25, 2025. Accessed Apr 22, 2025. https://ods.od.nih.gov/factsheets/Probiotics-HealthProfessional/
4. Vinderola G, Sanders ME, Salminen S. The Concept of Postbiotics. Foods. 2022;11(8):1077. Published 2022 Apr 8. doi:10.3390/foods11081077

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