PRE, PRO AND SYNBIOTICS:

What You Need to Know for Eating Disorders.

Dr. Heather Finley


PROBIOTICS

FIVE
LINCOLN
DOLLARS
SERIES 2013
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THE UNITED STATES OF AMERICA
Secretary of the Treasury
FEDERAL RESERVE NOTE
THE UNITED STATES OF AMERICA
F 52651099 D

THE LESSON

More CFU's doesn't = better!

ABOUT ME

Dr. Heather Finley

REGISTERED DIETITIAN

Experience in clinical settings, outpatient treatment and now virtual private practice

GUT HEALTH SPECIALIST

Focused my doctorate training on gut-related research and have my own personal experience with 20+ years of digestive issues

DR. HEATHER FINLEY
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RD + GUT HEALTH EXPERT

PLAN FOR TODAY

1

DEFINE THE TERMS

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PLAN FOR TODAY

1

DEFINE THE TERMS

2

RESEARCH ON PRO AND PREBIOTICS

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PLAN FOR TODAY

1

DEFINE THE TERMS

2

RESEARCH ON PRO AND PREBIOTICS

3

WHEN TO USE THEM

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PROBIOTICS

Probiotics are live microorganisms that are intended to have health benefits when consumed or applied to the body

PREBIOTICS

Specialized plant fibers. They act like fertilizers that stimulate the growth of bacteria in the gut

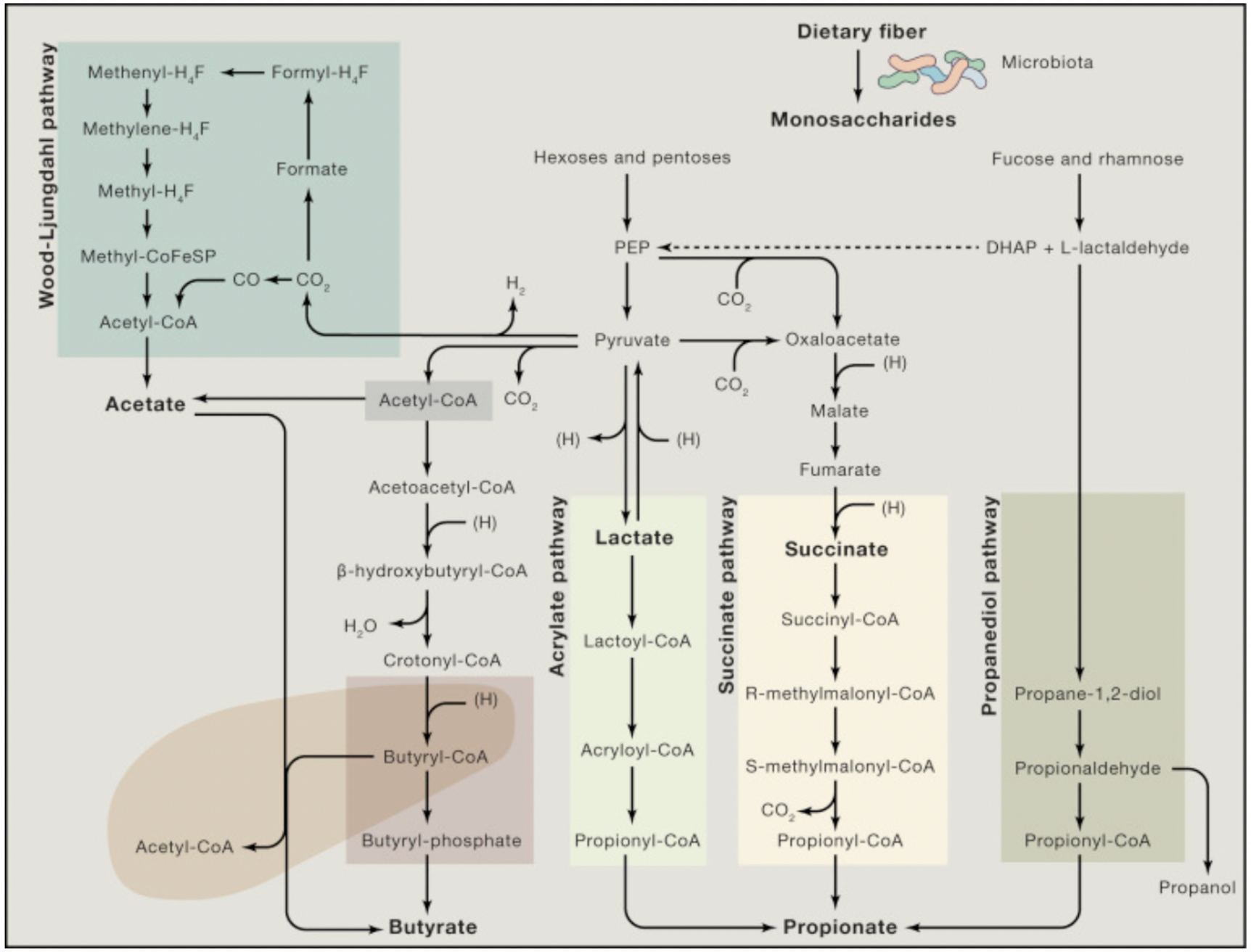
SYNBIOTIC

Synbiotics refer to food ingredients or dietary supplements combining probiotics and prebiotics in a form of synergism

SCFA

SHORT CHAIN FATTY ACID:

Short-chain fatty acids (SCFAs) are the main metabolites produced by the microbiota in the large intestine through the anaerobic fermentation of indigestible polysaccharides such as dietary fiber and resistant starch. SCFAs might influence gut-brain communication and brain function directly or indirectly.



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. doi: 10.1016/j.cell.2016.05.041. PMID: 27259147.


specific

STRAIN
CONDITION
DOSE

KEYSTONE STRAINS

KEYSTONE STRAINS

AKKERMANSIA MUCINIPHILA

KEYSTONE STRAINS

AKKERMANSIA MUCINIPHILA

FAECALIBACTERIUM PRAUSNITZII

KEYSTONE STRAINS

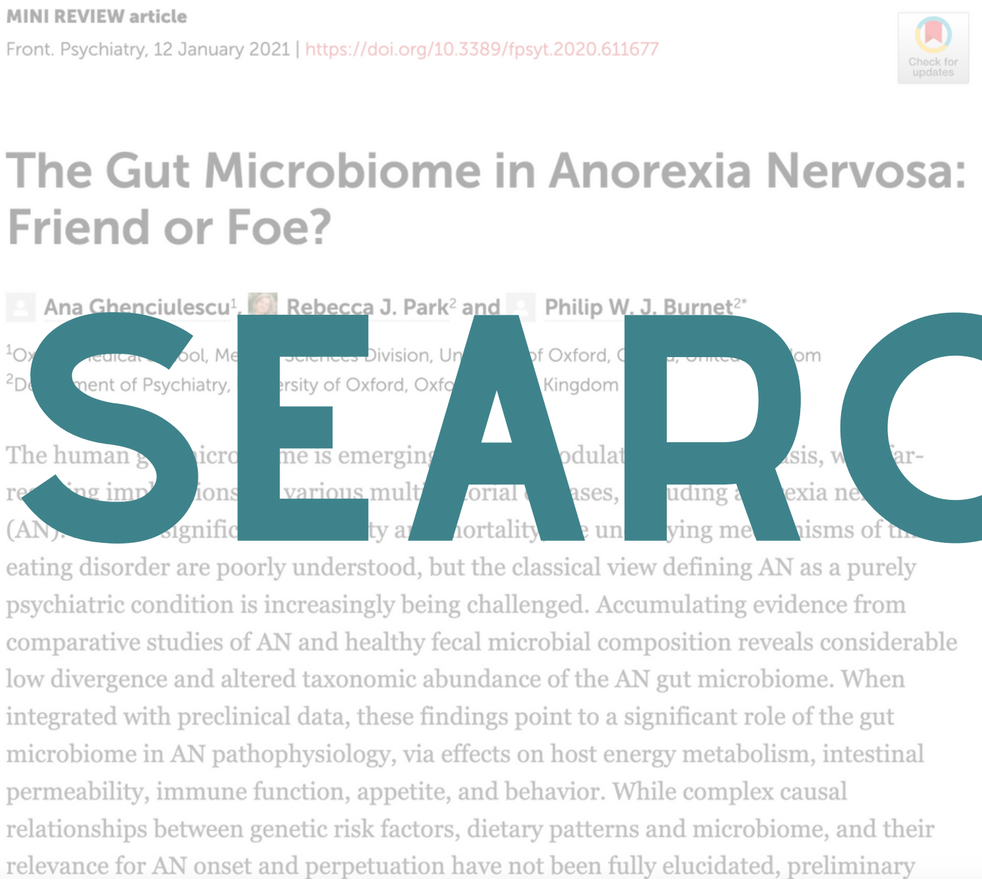
AKKERMANSIA MUCINIPHILA

FAECALIBACTERIUM PRAUSNITZII

BIFIDOBACTERIA

SPORES VS. LIVE AND ACTIVE CULTURES

GUT/BACTERIA PRESENCE	ANOREXIA NERVOSA
TOTAL ABUNDANCE	DECREASED
SHORT CHAIN FATTY ACIDS	DECREASED
METHANOBREVIBACTER	INCREASED
MUCIN-DEGRADERS	INCREASED
EUBACTERIUM/ROSEBURIA (IMMUNE BALANCE)	DECREASED



MINI REVIEW article

Front. Psychiatry, 12 January 2021 | https://doi.org/10.3389/fpsyt.2020.611677

The Gut Microbiome in Anorexia Nervosa: Friend or Foe?

Ana Ghenciulescu[1], Rebecca J. Park[2] and Philip W. J. Burnet[2*]

[1]Ox[illegible]edical [illegible]ool, Me[illegible]Sciences Division, Un[illegible]of Oxford, [illegible]om
[2]D[illegible]ment of Psychiatry, [illegible]ersity of Oxford, Oxfo[illegible]Kingdom

The human g[illegible]icro[illegible]me is emergin[illegible]odulat[illegible]sis, w[illegible]far-re[illegible]ing imp[illegible]ions[illegible]various multi[illegible]orial [illegible]ases, [illegible]uding a[illegible]exia ne[illegible] (AN). [illegible]Signific[illegible]ty a[illegible]ortality[illegible]e un[illegible]ying me[illegible]nisms of th[illegible] eating disorder are poorly understood, but the classical view defining AN as a purely psychiatric condition is increasingly being challenged. Accumulating evidence from comparative studies of AN and healthy fecal microbial composition reveals considerable low divergence and altered taxonomic abundance of the AN gut microbiome. When integrated with preclinical data, these findings point to a significant role of the gut microbiome in AN pathophysiology, via effects on host energy metabolism, intestinal permeability, immune function, appetite, and behavior. While complex causal relationships between genetic risk factors, dietary patterns and microbiome, and their relevance for AN onset and perpetuation have not been fully elucidated, preliminary

RESEARCH

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RESEARCH

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RESEARCH

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https://www.frontiersin.org/files/Articles/611677/fpsyt-11-611677-HTML-r1/image_m/fpsyt-11-611677-t001.jpg

Review > Genome Med. 2016 May 10;8(1):52. doi: 10.1186/s13073-016-0300-5.

Alterations in fecal microbiota composition by probiotic supplementation in healthy adults: a systematic review of randomized controlled trials

Nadja B Kristensen [1], Thomas Bryrup [2], Kristine H Allin [2], Trine Nielsen [2], Tue H Hansen [2], Oluf Pedersen [2]

PMID: 27159 PMCID: PMC 62129 DOI: 10. 3073-0 0300-5
PMC arti

RESEARCH

Background: The effects of probiotic supplementation on fecal microbiota composition in healthy adults have not been well established. We aimed to provide a systematic review of the potential evidence for an effect of probiotic supplementation on the composition of human fecal microbiota as assessed by high-throughput molecular approaches in randomized controlled trials (RCTs) of healthy adults.

Methods: The survey of peer-reviewed papers was performed on 17 August 2015 by a literature search through PubMed, SCOPUS, and ISI Web of Science. Additional papers were identified by checking references of relevant papers. Search terms included healthy adult, probiotic, bifidobacterium, lactobacillus, gut microbiota, fecal microbiota, intestinal microbiota, intervention, and (clinical) trial. RCTs of solely probiotic supplementation and placebo in healthy adults that

Kristensen NB, Bryrup T, Allin KH, Nielsen T, Hansen TH, Pedersen O. Alterations in fecal microbiota composition by probiotic supplementation in healthy adults: a systematic review of randomized controlled trials. Genome Med. 2016 May 10;8(1):52. doi: 10.1186/s13073-016-0300-5. PMID: 27159972; PMCID: PMC4862129.

RESEARCH

Food Nutr Res. 2018 Jul 4;62. doi: 10.29219/fnr.v62.1218. eCollection 2018.

Bacillus coagulans MTCC 5856 for the management of major depression with irritable bowel syndrome: a randomised, double-blind, placebo controlled, multi-centre, pilot clinical study

Muhammed Majeed [1 2 3 4], Kalyanam Nagabhushanam [2], Sivakumar Arumugam [1],
Majeed an Al

Affiliations + band

: 2999745 PMC DOI: 10. 19 v62.12

Free PMC article

Abstract

Background: The modification of microbial ecology in human gut by supplementing probiotics may be an alternative strategy to ameliorate or prevent depression.

Objective: The current study was conducted to assess the safety and efficacy of the probiotic strain *Bacillus coagulans* MTCC 5856 for major depressive disorder (MDD) in IBS patients.

Method: Patients (n = 40) diagnosed for MDD with IBS were randomized (1:1) to receive placebo or *B. coagulans* MTCC 5856 at a daily dose of 2 × 109 cfu (2 billion spores) and were maintained to the end of double-blind treatment (90 days). Changes from baseline in clinical symptoms of MDD and IBS were evaluated through questionnaires.

https://pubmed.ncbi.nlm.nih.gov/29997457/

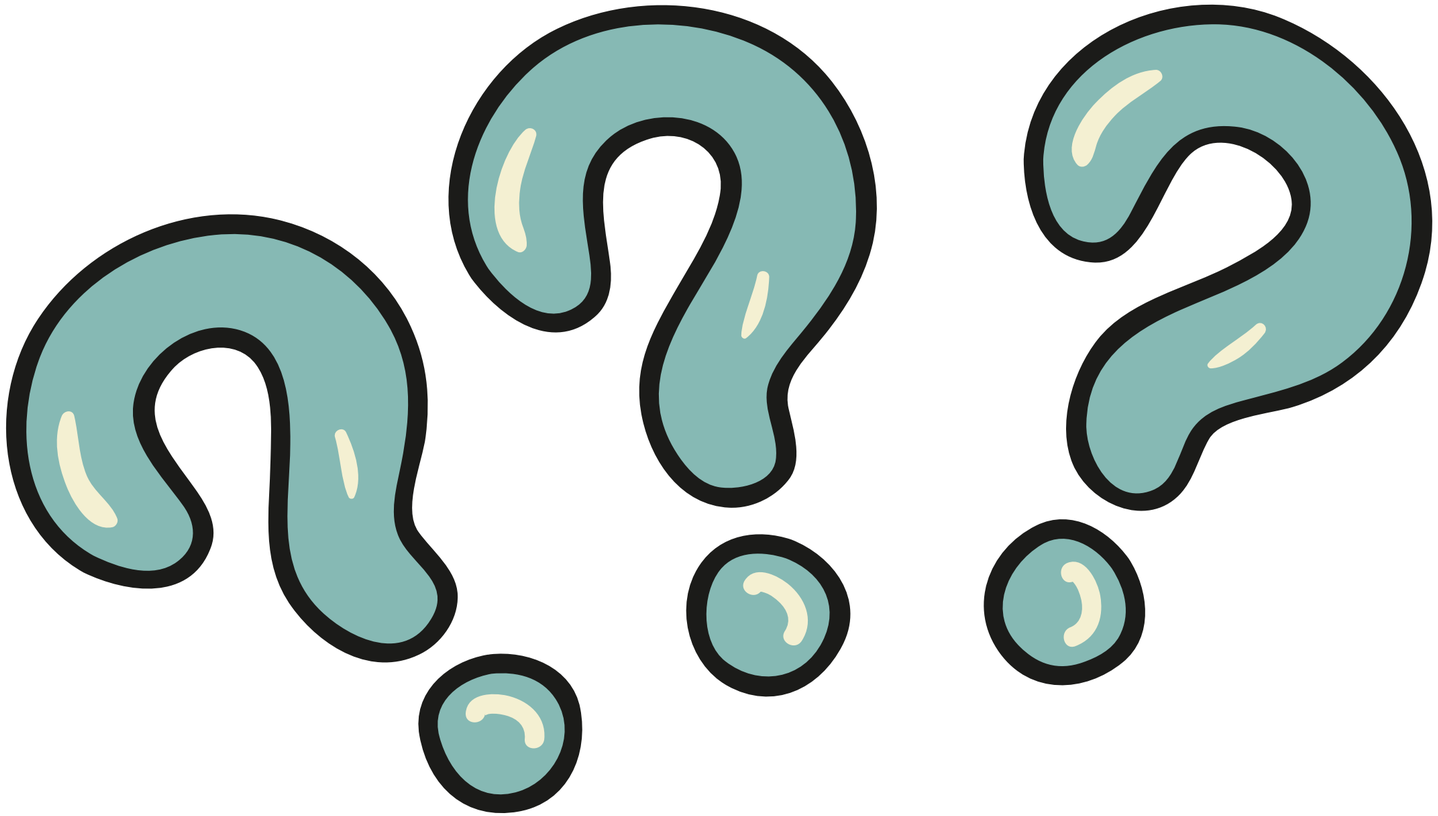
DIFFERENT SOLUTIONS

LIVE AND ACTIVE CULTURES

SPORE BASED PROBIOTICS

PREBIOTIC FIBERS

SYNBIOTICS



838 DAYS

ORDER OF EVENTS

SPORES

ORDER OF EVENTS

SPORES

PREBIOTIC FIBER

ORDER OF EVENTS

SPORES

PREBIOTIC FIBER

DIETARY DIVERSITY

OBSTACLES & CHALLENGES

OVERALL GOAL:

SCFA PRODUCTION

PRODUCTS

SPORE BASED PROBIOTICS

SYNBIOTICS

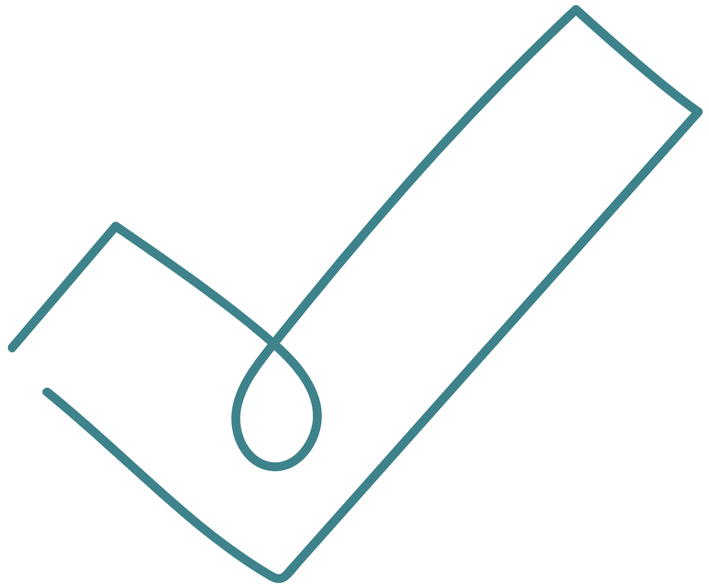

Seed
DS-01™ DAILY SYNBIOTIC
PROBIOTIC + PREBIOTIC SUPPLEMENT
60 CAPSULES • 30 DAY SUPPLY


Ritual
Synbiotic+
Probiotic
Prebiotic
Postbiotic
Dietary Supplement
30 VEGAN CAPSULES

PREBIOTIC FIBER

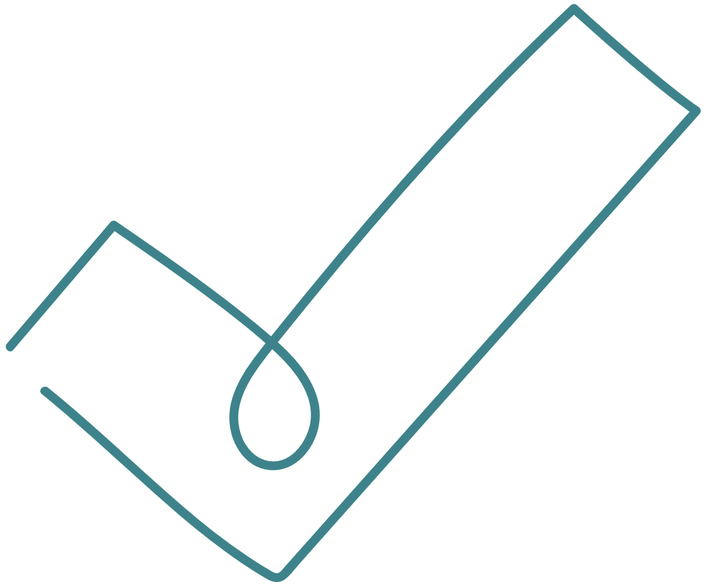
SYMPTOMS WITH REPOPULATION

TAKEAWAYS



PROBIOTIC TAKEAWAY

- You don't need the most expensive or highest CFU probiotic
- Spores could be a novel approach in reseeding + improving SCFA production
- Go SLOW



PREBIOTIC TAKEAWAY

- Necessary for probiotic survival
- Go SLOW

PROBIOTICS, PREBIOTICS AND SYNBIOTICS CAN BE USED AS A NOVEL APPROACH TO EATING DISORDERS

DO YOU WANT THE CHECKLIST?

Visit:
drheatherfinley.co/digestivechecklist

HOW WE CAN CONNECT

ON INSTAGRAM
@drheatherfinley

ON LINKED IN

Dr. Heather Finley
Dietitian Heather, LLC

MY PODCAST
Love your Gut with Dr. Heather Finley

QUESTIONS?

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