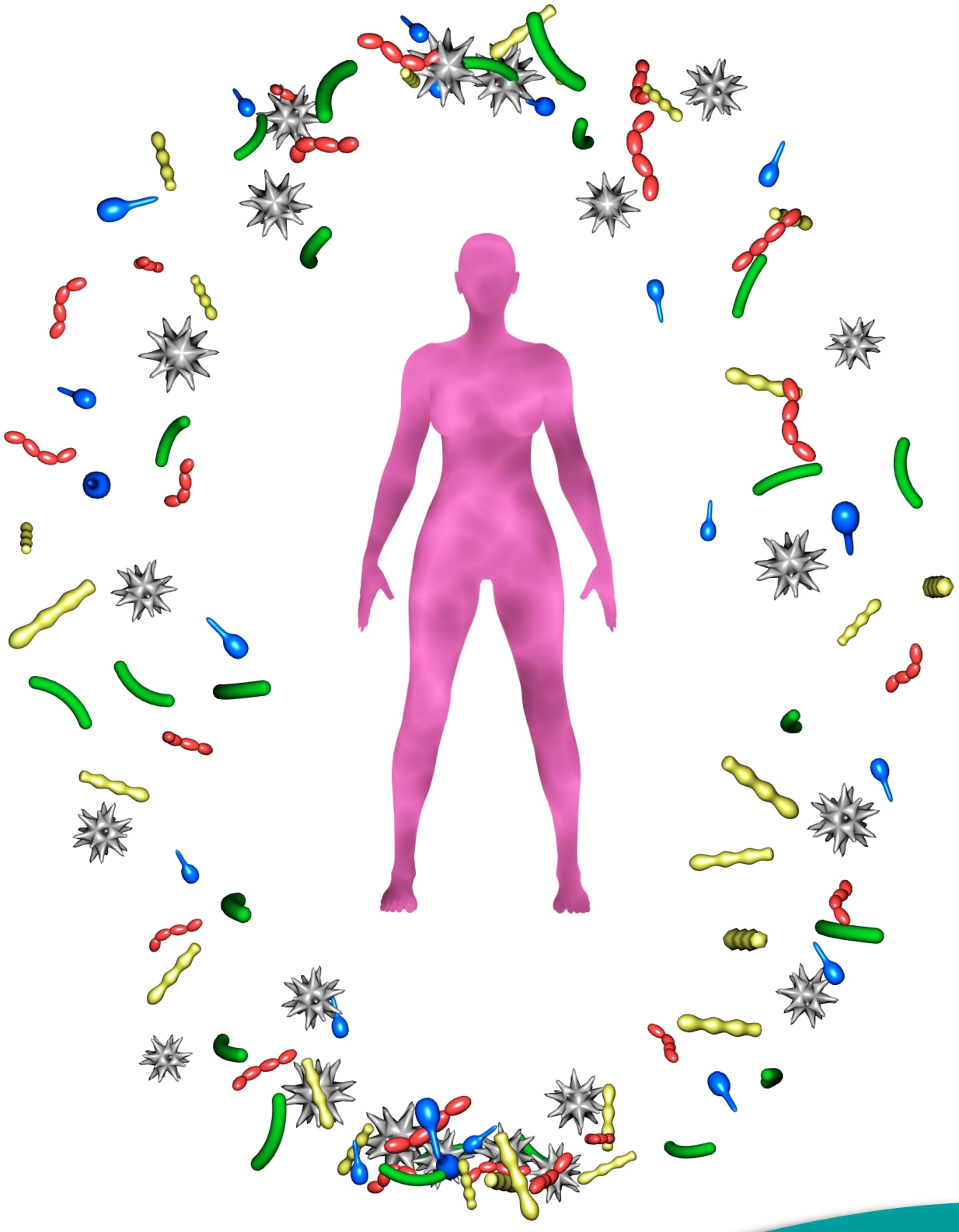
MyDiagnostics

SAMPLE REPORT

MyDiagnostics.in



Your Gut Microbiome Signature

SUPERGUT *Plus*

Welcome

This is your BugSpeaks® report.

With this report, our endeavor is to provide you with an evidence based interpretation of your gut microbiome data, with the hope that it will guide you to better understand your health and make necessary changes to your lifestyle to lead a healthier life.

We have categorized the report into following 4 sections

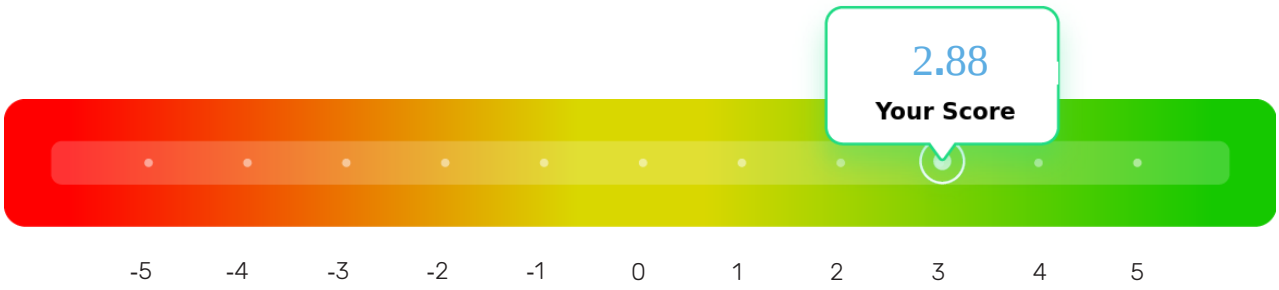
- Your Gut Microbiome Profile
- Disease Risks
- Lifestyle Performance Potential
- Dietary Recommendations
    - Phase I - Restoring your gut microbiome - 2 Weeks
    - Phase II - Rebuilding your microbiome - 8 Weeks
    - Phase III - Maintaining the healthy gut - 2 Weeks

Please note:
1. This is not a diagnostic report and should be interpreted or used exclusively by or under the guidance of a practitioner, including but not limited to, certified physicians, clinicians, dietitians, nutritionists, sports therapists and such other persons in similar profession having appropriate validation to undertake such practice. (Please See Disclaimers).
2. Establishment of gut microbiome is quantitatively and functionally influenced by your diet and nutrition, and it is highly dynamic. Hence, we recommend you to undergo retesting of your gut every 3 months and renew your recommendations.

Future reference to this report can be made using the Report ID

Your Gut Microbiome Profile

The gut microbiome profile is a cumulative measure of Composition (different species identified), Abundance (quantity of the species identified), and Diversity (how diverse are the identified species). It is largely established that loss or low microbial diversity is the most constant finding of intestinal dysbiosis (disruption in the balance of microorganisms) and hence associated with many human diseases. To represent the impact of diversity, we have generated the following spectrum of microbiome diversity.

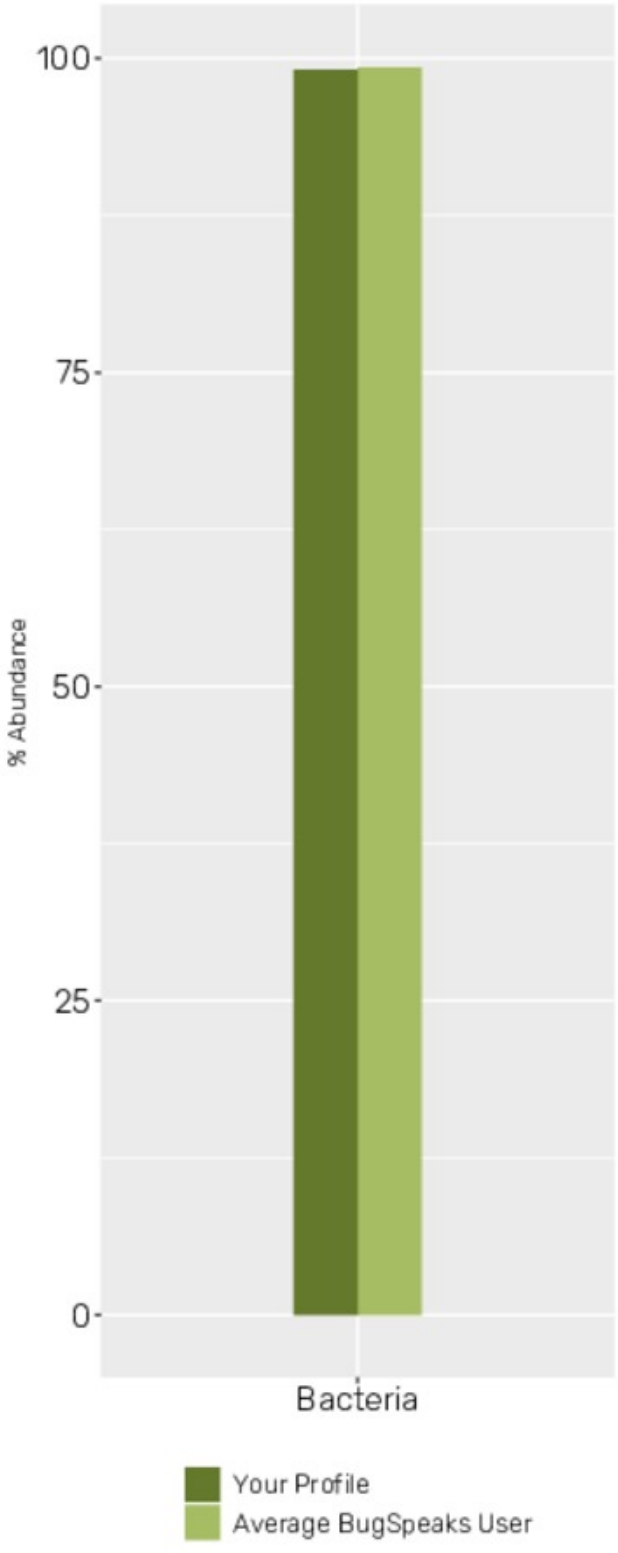


In the above pictorial depiction

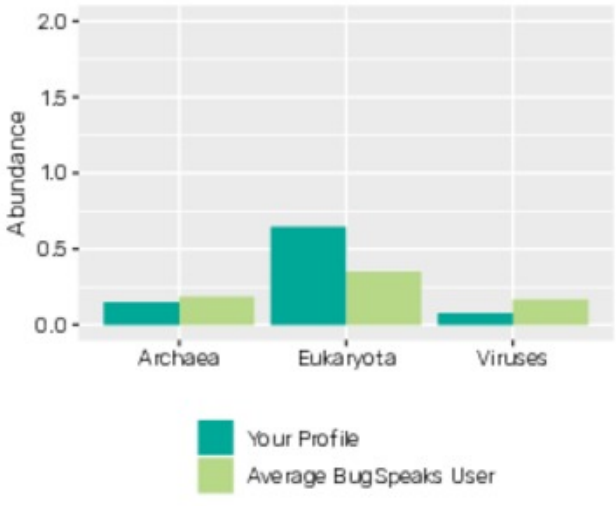
- Ranges from -5 to +5, where
- +5 denotes "Healthy Microbiome Diversity", largely dominated by beneficial microbes
- -5 denotes a diversity of gut microbiome largely dominated by detrimental or non-beneficial microbes
- The pointer, with "Your Score" on the spectrum represents where you stand.

Your Gut Microbiome Profile

As mentioned above, the gut microbiome profile is a cumulative measure of Composition (different species identified), Abundance (quantity of the species identified), and Diversity (how diverse are the identified species). The composition of any gut microbiome belongs to 4 major groups of microorganisms called - Bacteria, Archaea, Virus and Eukaryota (Fungi, Protozoa and Metazoa). Below is a pictorial representation highlighting major groups and percentage of those microorganisms identified within your gut.



Bacteroidetes	58.45%
Firmicutes	36.44%
Bacteroidetes-to-Firmicutes ratio	1.6
Actinobacteria	1.08%
Proteobacteria	2.53%
Actinobacteria-to-Proteobacteria ratio	2.34
Lactobacillus Total Count	0.51%
Lactobacillus plantarum	0.01%
Bifidobacterium Total Count	0.44%
Bifidobacterium adolescentis	0.20%



Pathogen Characterization

BugSpeaks® identifies and characterizes many pathogens commonly known to cause intestinal gastroenteritis. Results are reported with "% abundances" of each pathogen, along with "indicative tags", which can be interpreted as described below

Absent	Do not Worry
Very Low	Do not Worry
Low	Follow Dietary + Supplementation Recommendations
Moderately High	Follow Dietary + Supplementation Recommendations. If any symptoms persist, consult a doctor
High	Consult a doctor

Disclaimers:

- This is not a diagnostic report.
- This is not a microbiology (culture based) report.
- We quantify these pathogens using sequencing-based method, and hence can quantify only "% abundances" of these pathogens.
- The "indicative tags" does not represent standard scientific notation such as colony forming units per gram of stool (CFU/g).
- Moderately High (Orange) or High (Red) tags for any pathogen does not mean you have the disease or have symptoms. Many factors, including the overall health status of the individual, the transient nature of some pathogens, and the presence and expression of its virulence (disease causing) factors all contribute to an individual's disease.

Species	Abd	Tag	Species	Abd	Tag
Klebsiella pneumoniae	0.65%	Low	Helicobacter pylori	0.02%	Very Low
Bacteroides fragilis	0.29%	Low	Clostridium butyricum	0.01%	Very Low
Bilophila wadsworthia	0.07%	Very Low	Staphylococcus epidermidis	0.01%	Very Low
Clostridioides difficile	0.07%	Very Low	Clostridium perfringens	0.01%	Very Low
Bacillus cereus	0.04%	Very Low	Streptococcus agalactiae	0.01%	Very Low
Escherichia coli	0.04%	Very Low	Campylobacter jejuni	0.01%	Very Low
Enterococcus faecium	0.03%	Very Low	Leptospira interrogans	0.01%	Very Low
Clostridium botulinum	0.02%	Very Low	Listeria monocytogenes	0.01%	Very Low
Enterococcus faecalis	0.02%	Very Low	Streptococcus pneumoniae	0.01%	Very Low
Fusobacterium nucleatum	0.02%	Very Low	Staphylococcus aureus	0%	Absent

Pathogen Characterization

Species	Abd	Tag
Haemophilus parainfluenzae	0%	Absent
Porphyromonas gingivalis	0%	Absent
Francisella tularensis	0%	Absent
Leptospira weilii	0%	Absent
Streptococcus pyogenes	0%	Absent
Legionella pneumophila	0%	Absent
Vibrio cholerae	0%	Absent
Yersinia enterocolitica	0%	Absent
Clostridium tetani	0%	Absent
Mycoplasma fermentans	0%	Absent
Yersinia pestis	0%	Absent
Citrobacter rodentium	0%	Absent
Corynebacterium diphtheriae	0%	Absent
Ehrlichia chaffeensis	0%	Absent
Haemophilus influenzae	0%	Absent
Leptospira santarosai	0%	Absent
Neisseria meningitidis	0%	Absent
Staphylococcus saprophyticus	0%	Absent
Ureaplasma urealyticum	0%	Absent
Bordetella pertussis	0%	Absent
Brucella abortus	0%	Absent

Species	Abd	Tag
Chlamydia trachomatis	0%	Absent
Leptospira noguchii	0%	Absent
Proteus mirabilis	0%	Absent
Shigella dysenteriae	0%	Absent
Bacillus anthracis	0%	Absent
Brucella canis	0%	Absent
Brucella melitensis	0%	Absent
Brucella suis	0%	Absent
Chlamydia pneumoniae	0%	Absent
Chlamydophila psittaci	0%	Absent
Clostridium boltae	0%	Absent
Ehrlichia canis	0%	Absent
Mycobacterium leprae	0%	Absent
Mycobacterium tuberculosis	0%	Absent
Mycobacterium ulcerans	0%	Absent
Mycoplasma pneumoniae	0%	Absent
Neisseria gonorrhoeae	0%	Absent
Nocardia asteroides	0%	Absent
Pseudomonas aeroginosa	0%	Absent
Rickettsia rickettsii	0%	Absent
Treponema pallidum	0%	Absent

Disease Risk

Based on your current microbiome profile, your are susceptible to some diseases summarized in the table below.

Low Risk Diseases	Moderate Risk Diseases	High Risk Diseases
Clostridium Difficile Infection	Obesity	
Inflammatory Bowel Disease	Colorectal Neoplasm	
Ulcerative Colitis	Diabetes Mellitus Type 2	
Chronic Kidney Disease	Constipation	
Crohns Disease	Depression	
Irritable Bowel Syndrome	Hypertension	
Non-Alcoholic Fatty Liver Disease	Rheumatoid Arthritis	
Atherosclerosis	Anxiety	

Please note:

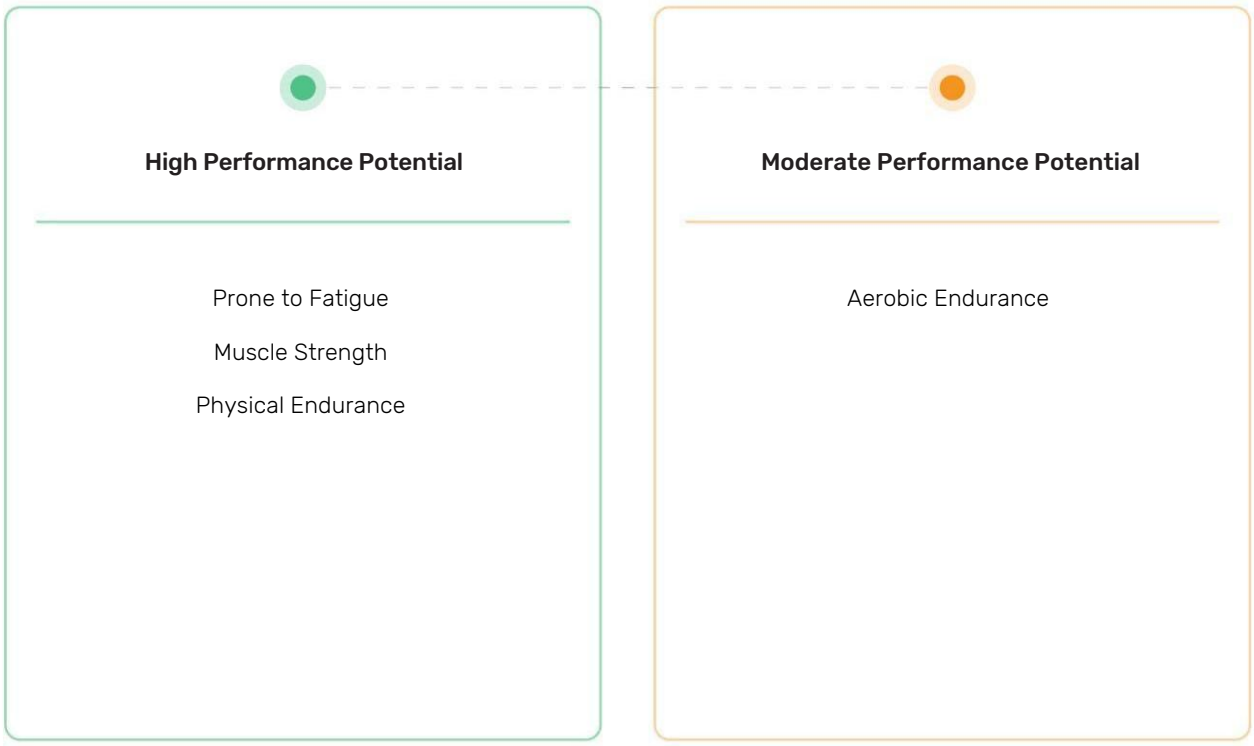
- These “Disease Risks” are an algorithm based output. This does not predict or diagnose any disease. Please consult a doctor or a physician.
- Each of these identified health conditions have been described at the end of this report to provide you with a basic understanding of associations between the gut microbiome and these diseases.

Lifestyle Performance Potential

Human wellbeing is influenced by lifestyle and behavioral traits, including but not limited to food and sleeping habit, your body type, your response to exercise, your body's detoxification potential and many others. Of these, athleticism or athletic ability is one of the most complex human traits that significantly influence your lifestyle, along with nutrition and diet.

Athleticism as a trait does not just limit to body's morphology (i.e., height and body composition), but associates beyond to endurance, strength, power and various other complementary traits. Many things are known about the genetic facets that drive these associations. While the genetic makeup of an individual has a large influence on this complex trait, both the scientific and sporting communities have recently acknowledged that the gut microbiota can significantly contribute to athleticism and overall lifestyle.

So, based on your current microbiome profile, we have estimated your performance potential across several key traits, in hope that this would aid you in designing an optimal training regime for building a healthier lifestyle.



Please note:

- These "Lifestyle Performance Potential" is an algorithm based output. This does not ensure any optimal performance.
- Each of these identified performance or lifestyle trait have been described at the end of this report to provide you with a basic understanding of associations between the gut microbiome and these traits.

Dietary Recommendations

Our approach to restore the gut balance is based on a three stage strategy:

Phase 1

Restoring your gut microbiome - 2 Weeks

Involves restoration or resetting of your gut microbiome, where we minimize the composition and abundance of pathogenic or opportunistic microorganisms, to create a gut environment ideal for beneficial microorganisms to grow in Phase 2. This phase requires strict changes in your diet for a short period of time and supplementation with anti-inflammatory foods, natural antibiotics, and through restriction of selected inflammatory foods.

Phase 2

Rebuilding your microbiome - 8 Weeks

Involves rebuilding of your healthy gut microbiome, through re-inoculation and replacement with mostly beneficial microorganisms. We achieve this through incorporation of prebiotics and probiotics, via natural dietary sources and commercially available supplements. This lasts for up to 10th week of your diet plan (a total of 8 weeks), which ensure the complete restoration of your gut microbiota.

Phase 3

Maintaining the healthy gut - 2 Weeks

Largely involves a streamlined method for sustaining the healthy gut microbiome built during phase 2. These dietary, prebiotic and probiotic recommendations can be adopted for long term sustenance, spanning up to 2 weeks of your diet plan.

All 3 phases have a total of 6 food categories, each containing a list of foods and a frequency tag. We have used a total of 4 frequency tags that indicates how frequently you can include a specific food in your meal plan.

Frequent	can be consumed everyday [in 1 meal/day]
Moderate	can be consumed every alternate day [in 1 meal/2 days]
Low	can be consumed once in 3 days [in 1 meal/3 days]
Avoid	Avoid the consumption as much as possible

Please note:

These recommendations are largely beneficial, with no or minimal negative impact on your health. Even though these dietary charts are evidence based recommendations, we would strongly suggest you to consult a physician/nutritionist, before implementing these in your lifestyle. This is specifically true about the extent of inclusion and exclusion of a specific food and for individuals who are either diabetic, hypertensive and/or having special dietary needs.

Establishment of gut microbiome is quantitatively and functionally influenced by your diet and nutrition, and it is highly dynamic. Hence, we strongly recommend your to undergo retesting of your gut every 3 months and renew your recommendations.

Phase 1

Greens & Vegetables

Onion	Frequent	Kidney beans	Moderate
Ash gourd	Moderate	Knol	Moderate
Beet root	Moderate	Ladies finger	Moderate
Bengal gram	Moderate	Moth bean	Moderate
Bitter gourd	Moderate	Mung bean	Moderate
Bottle gourd	Moderate	Peas	Moderate
Brinjal	Moderate	Pigeon pea	Moderate
Broad beans	Moderate	Pointed gourd	Moderate
Cabbage	Moderate	Pumpkin	Moderate
Capsicum	Moderate	Radish	Moderate
Carrot	Moderate	Ridge gourd	Moderate
Cauliflower	Moderate	Snake gourd	Moderate
Cho cho	Moderate	Spinach	Moderate
Cluster beans	Moderate	Tinda	Moderate
Corn	Moderate	Tomato	Moderate
Cowpea	Moderate	French beans	Low
Cucumber	Moderate	Green chillies	Low
Drumstick	Moderate	Mushroom	Low
Fenugreek leaves	Moderate	Potato	Low
Field bean	Moderate	Sweet corn	Low
Gogu leaves	Moderate	Sweet potato	Low
Green gram	Moderate	Tapioca	Low
Horse gram	Moderate	Yam	Low

Phase 1

Cereals, Herbs & Condiments

Cardamom	Frequent	Kodo millets	Moderate
Cloves	Frequent	Little millets	Moderate
Coconut	Frequent	Maize	Moderate
Coconut oil	Frequent	Mustard oil	Moderate
Cumin seeds	Frequent	Mustard seeds	Moderate
Curry leaves	Frequent	Pearl millet	Moderate
Garlic	Frequent	Pistachio nuts	Moderate
Ginger	Frequent	Poppy seeds	Moderate
Mint leaves	Frequent	Red chillies	Moderate
Olive oil	Frequent	Rice bran oil	Moderate
Turmeric powder	Frequent	Semame oil	Moderate
Asafoetida	Moderate	Sesame seeds	Moderate
Brown rice	Moderate	Sunflower seeds	Moderate
Butter	Moderate	Walnut	Moderate
Cashew nut	Moderate	Almonds	Low
Coriander leaves	Moderate	Palm oil	Low
Coriander seeds	Moderate	Rice flakes	Low
Fenugreek seeds	Moderate	Rice puffed	Low
Finger Millet	Moderate	Sunflower oil	Low
Ghee	Moderate	Wheat	Low
Ground nut	Moderate	Wheat flour	Low
Groundnut oil	Moderate	White rice	Low
Jaggery	Moderate	Vanaspati	Avoid

Phase 1

Fruits

Apple	Frequent	Jack fruit	Moderate
Guava	Frequent	Jambu fruit	Moderate
Lemon	Frequent	Lychee	Moderate
Pineapple	Frequent	Mango	Moderate
Pomegranate	Frequent	Musk melon	Moderate
Water melon	Frequent	Papaya	Moderate
Banana	Moderate	Pear	Moderate
Custard apple	Moderate	Raisins	Moderate
Dates	Moderate	Sapota	Moderate
Fig	Moderate	Star fruit	Moderate
Goosberry	Moderate	Strawberry	Moderate
Grapes	Moderate	Wood apple	Moderate

Egg & Meat

Beef	Avoid	Oysters	Avoid
Bombay Duck	Avoid	Pork	Avoid
Catla	Avoid	Prawn	Avoid
Chicken	Avoid	Rohu	Avoid
Crab	Avoid	Salmon	Avoid
Egg	Avoid	Sardine	Avoid
Goat	Avoid	Sheep	Avoid
Haddock	Avoid	Trout	Avoid
Mussels	Avoid	Tuna	Avoid

Phase 1

Milk & Fermented Products

Brined Olives	Avoid	Panner	Avoid
Butter milk	Avoid	Sauerkraut	Avoid
Kefir	Avoid	Shrikhand	Avoid
Kimchi	Avoid	Skim milk	Avoid
Kombucha	Avoid	Yogurt	Avoid

Processed Foods

Artificial sweeteners	Avoid	Milk chocolate	Avoid
Burger	Avoid	Noodle	Avoid
Cake	Avoid	Pasta	Avoid
Cookies	Avoid	Pastry	Avoid
Crackers	Avoid	Pizza	Avoid
Dark chocolate	Avoid	Rolls	Avoid
French Toast	Avoid	Sandwich	Avoid
Garlic Bread	Avoid	Taco	Avoid
Ice cream	Avoid	White sugar	Avoid

Drinks & Beverages

Tender coconut water	Frequent	Carbonated Beverages	Avoid
Soy milk	Moderate	Distilled alcoholic beverages	Avoid
Sugarcane juice	Moderate	Milk Shake	Avoid
Beer	Avoid	Red wine	Avoid

Phase 2

Greens & Vegetables

Onion	Frequent	Kidney beans	Moderate
Ash gourd	Moderate	Knol	Moderate
Beet root	Moderate	Ladies finger	Moderate
Bengal gram	Moderate	Moth bean	Moderate
Bitter gourd	Moderate	Mung bean	Moderate
Bottle gourd	Moderate	Peas	Moderate
Brinjal	Moderate	Pigeon pea	Moderate
Broad beans	Moderate	Pointed gourd	Moderate
Cabbage	Moderate	Pumpkin	Moderate
Capsicum	Moderate	Radish	Moderate
Carrot	Moderate	Ridge gourd	Moderate
Cauliflower	Moderate	Snake gourd	Moderate
Cho cho	Moderate	Spinach	Moderate
Cluster beans	Moderate	Tinda	Moderate
Corn	Moderate	Tomato	Moderate
Cowpea	Moderate	French beans	Low
Cucumber	Moderate	Green chillies	Low
Drumstick	Moderate	Mushroom	Low
Fenugreek leaves	Moderate	Potato	Low
Field bean	Moderate	Sweet corn	Low
Gogu leaves	Moderate	Sweet potato	Low
Green gram	Moderate	Tapioca	Low
Horse gram	Moderate	Yam	Low

Phase 2

Cereals, Herbs & Condiments

Cardamom	Frequent	Kodo millets	Moderate
Cloves	Frequent	Little millets	Moderate
Coconut	Frequent	Maize	Moderate
Coconut oil	Frequent	Mustard oil	Moderate
Cumin seeds	Frequent	Mustard seeds	Moderate
Curry leaves	Frequent	Pearl millet	Moderate
Garlic	Frequent	Pistachio nuts	Moderate
Ginger	Frequent	Poppy seeds	Moderate
Mint leaves	Frequent	Red chillies	Moderate
Olive oil	Frequent	Rice bran oil	Moderate
Turmeric powder	Frequent	Semame oil	Moderate
Asafoetida	Moderate	Sesame seeds	Moderate
Brown rice	Moderate	Sunflower seeds	Moderate
Butter	Moderate	Walnut	Moderate
Cashew nut	Moderate	Almonds	Low
Coriander leaves	Moderate	Palm oil	Low
Coriander seeds	Moderate	Rice flakes	Low
Fenugreek seeds	Moderate	Rice puffed	Low
Finger Millet	Moderate	Sunflower oil	Low
Ghee	Moderate	Wheat	Low
Ground nut	Moderate	Wheat flour	Low
Groundnut oil	Moderate	White rice	Low
Jaggery	Moderate	Vanaspati	Avoid

Phase 2

Fruits

Apple	Frequent	Jack fruit	Moderate
Guava	Frequent	Jambu fruit	Moderate
Lemon	Frequent	Lychee	Moderate
Pineapple	Frequent	Mango	Moderate
Pomegranate	Frequent	Musk melon	Moderate
Water melon	Frequent	Papaya	Moderate
Banana	Moderate	Pear	Moderate
Custard apple	Moderate	Raisins	Moderate
Dates	Moderate	Sapota	Moderate
Fig	Moderate	Star fruit	Moderate
Goosberry	Moderate	Strawberry	Moderate
Grapes	Moderate	Wood apple	Moderate

Egg & Meat

Beef	Avoid	Oysters	Avoid
Bombay Duck	Avoid	Pork	Avoid
Catla	Avoid	Prawn	Avoid
Chicken	Avoid	Rohu	Avoid
Crab	Avoid	Salmon	Avoid
Egg	Avoid	Sardine	Avoid
Goat	Avoid	Sheep	Avoid
Haddock	Avoid	Trout	Avoid
Mussels	Avoid	Tuna	Avoid

Phase 2

Milk & Fermented Products

Brined Olives	Moderate	Panner	Moderate
Butter milk	Moderate	Sauerkraut	Moderate
Kefir	Moderate	Shrikhand	Moderate
Kimchi	Moderate	Skim milk	Moderate
Kombucha	Moderate	Yogurt	Moderate

Processed Foods

Artificial sweeteners	Avoid	Milk chocolate	Avoid
Burger	Avoid	Noodle	Avoid
Cake	Avoid	Pasta	Avoid
Cookies	Avoid	Pastry	Avoid
Crackers	Avoid	Pizza	Avoid
Dark chocolate	Avoid	Rolls	Avoid
French Toast	Avoid	Sandwich	Avoid
Garlic Bread	Avoid	Taco	Avoid
Ice cream	Avoid	White sugar	Avoid

Drinks & Beverages

Tender coconut water	Frequent	Carbonated Beverages	Avoid
Soy milk	Moderate	Distilled alcoholic beverages	Avoid
Sugarcane juice	Moderate	Milk Shake	Avoid
Beer	Avoid	Red wine	Avoid

Phase 2

Supplements

Probiotics

Probiotics are a set of beneficial microorganisms that help you metabolize the food you eat and have significantly positive impact on your overall gut health. Consuming foods or supplements rich in these probiotics will aid in restoring and maintaining a healthy gut in the long run. Below we have listed of probiotics species along with one example of its natural source.

Bifidobacterium infantis	Yogurt	Lactobacillus reuteri	Kefir
Enterococcus durans	Kefir	Lactobacillus paracasei	Butter milk
Lactobacillus acidophilus	Fermented milk	Lactobacillus rhamnosus	Butter milk
Lactobacillus casei	Fermented milk	Lactobacillus johnsonii	Fermented Vegetables
Lactobacillus fermentum	Fruits	Bifidobacterium animalis	Fermented dairy products
Lactobacillus plantarum	Brined olives	Lactobacillus helveticus	Italian Cheeses
Lactococcus lactis	Cheddar cheese	Lactobacillus pentosus	Fermented dairy
Saccharomyces cerevisiae	Kefir	Leuconostoc mesenteroides	Sauerkraut
Bacillus coagulans	Yogurt	Lactobacillus brevis	Kimchi

Also, these supplements are available for purchase through online retailers. Example of a probiotic supplement include Ultra-30.

Prebiotics

PREBIOTICS are a special form of dietary fibers that act as fertilizers for the probiotics in your gut (listed above). Below we have listed a set of probiotics species along with one example of its natural source.

Isomalto-oligosaccharides	Honey	Hemicellulosic oligosaccahride	Garlic
Arabinoxylan oligosaccharides	Cluster beans	Inulin	Onions
Dextran	Artichokes	Lactulose	Oats
Fructo-oligosaccharides	Sugar cane	Mannose and Galactose	Yogurt
Galacto-oligosaccharides	Bamboo shoots	Resistant starch	Rice bran

Also, these supplements are available for purchase through online retailers. Example of a Prebiotic supplement include Prebiotin - a natural fiber to promote colon and gut health.

Phase 3

Greens & Vegetables

Onion	Frequent	Kidney beans	Moderate
Ash gourd	Moderate	Knol	Moderate
Beet root	Moderate	Ladies finger	Moderate
Bengal gram	Moderate	Moth bean	Moderate
Bitter gourd	Moderate	Mung bean	Moderate
Bottle gourd	Moderate	Peas	Moderate
Brinjal	Moderate	Pigeon pea	Moderate
Broad beans	Moderate	Pointed gourd	Moderate
Cabbage	Moderate	Pumpkin	Moderate
Capsicum	Moderate	Radish	Moderate
Carrot	Moderate	Ridge gourd	Moderate
Cauliflower	Moderate	Snake gourd	Moderate
Cho cho	Moderate	Spinach	Moderate
Cluster beans	Moderate	Tinda	Moderate
Corn	Moderate	Tomato	Moderate
Cowpea	Moderate	French beans	Low
Cucumber	Moderate	Green chillies	Low
Drumstick	Moderate	Mushroom	Low
Fenugreek leaves	Moderate	Potato	Low
Field bean	Moderate	Sweet corn	Low
Gogu leaves	Moderate	Sweet potato	Low
Green gram	Moderate	Tapioca	Low
Horse gram	Moderate	Yam	Low

Phase 3

Cereals, Herbs & Condiments

Cardamom	Frequent	Kodo millets	Moderate
Cloves	Frequent	Little millets	Moderate
Coconut	Frequent	Maize	Moderate
Coconut oil	Frequent	Mustard oil	Moderate
Cumin seeds	Frequent	Mustard seeds	Moderate
Curry leaves	Frequent	Pearl millet	Moderate
Garlic	Frequent	Pistachio nuts	Moderate
Ginger	Frequent	Poppy seeds	Moderate
Mint leaves	Frequent	Red chillies	Moderate
Olive oil	Frequent	Rice bran oil	Moderate
Turmeric powder	Frequent	Semame oil	Moderate
Asafoetida	Moderate	Sesame seeds	Moderate
Brown rice	Moderate	Sunflower seeds	Moderate
Butter	Moderate	Walnut	Moderate
Cashew nut	Moderate	Almonds	Low
Coriander leaves	Moderate	Palm oil	Low
Coriander seeds	Moderate	Rice flakes	Low
Fenugreek seeds	Moderate	Rice puffed	Low
Finger Millet	Moderate	Sunflower oil	Low
Ghee	Moderate	Wheat	Low
Ground nut	Moderate	Wheat flour	Low
Groundnut oil	Moderate	White rice	Low
Jaggery	Moderate	Vanaspati	Avoid

Phase 3

Fruits

Apple	Frequent	Jack fruit	Moderate
Guava	Frequent	Jambu fruit	Moderate
Lemon	Frequent	Lychee	Moderate
Pineapple	Frequent	Mango	Moderate
Pomegranate	Frequent	Musk melon	Moderate
Water melon	Frequent	Papaya	Moderate
Banana	Moderate	Pear	Moderate
Custard apple	Moderate	Raisins	Moderate
Dates	Moderate	Sapota	Moderate
Fig	Moderate	Star fruit	Moderate
Goosberry	Moderate	Strawberry	Moderate
Grapes	Moderate	Wood apple	Moderate

Egg & Meat

Egg	Moderate	Haddock	Low
Prawn	Moderate	Mussels	Low
Rohu	Moderate	Oysters	Low
Salmon	Moderate	Beef	Avoid
Sardine	Moderate	Chicken	Avoid
Tuna	Moderate	Goat	Avoid
Bombay Duck	Low	Pork	Avoid
Catla	Low	Sheep	Avoid
Crab	Low	Trout	Avoid

Phase 3

Milk & Fermented Products

Butter milk	Frequent	Kombucha	Moderate
Yogurt	Frequent	Panner	Moderate
Brined Olives	Moderate	Sauerkraut	Moderate
Kefir	Moderate	Shrikhand	Moderate
Kimchi	Moderate	Skim milk	Moderate

Processed Foods

Dark chocolate	Low	Milk chocolate	Avoid
Artificial sweeteners	Avoid	Noodle	Avoid
Burger	Avoid	Pasta	Avoid
Cake	Avoid	Pastry	Avoid
Cookies	Avoid	Pizza	Avoid
Crackers	Avoid	Rolls	Avoid
French Toast	Avoid	Sandwich	Avoid
Garlic Bread	Avoid	Taco	Avoid
Ice cream	Avoid	White sugar	Avoid

Drinks & Beverages

Tender coconut water	Frequent	Red wine	Low
Soy milk	Moderate	Carbonated Beverages	Avoid
Sugarcane juice	Moderate	Distilled alcoholic beverages	Avoid
Beer	Low	Milk Shake	Avoid

Clostridium Difficile Infection

Low Risk

A dysbiotic microbiota can result in the loss of colonization resistance due to changes in the structural and/or metabolic environment. The loss of specific community members potentially affects the levels of microbial and host-generated metabolites, resulting in a different functional state that promotes spore germination and vegetative outgrowth. A dysbiotic microbiota may also result in an imbalanced immune response through the loss of immune regulation and a proinflammatory state, both of which may affect disease development. Toxin production by vegetative C. difficile can stimulate the production of inflammatory cytokines, neutrophils, and antitoxin antibodies.

Inflammatory Bowel Disease

Low Risk

The abundant bacteria in the gut needs complex polysaccharides to survive, which if absent in your gut, starts eating the mucus layer shielding the colon lining which leads to many opportunistic infections aided by Roseburia and Actinobacteria, which will further activate several enteric pathogens and triggers inflammatory pathways and causes inflammation in walls of gastrointestinal tract.

Ulcerative Colitis

Low Risk

Bifidobacterium and Lactobacillus maintains the gut mucosal integrity through the expression of many tight junction encoding genes (connections that bridge and hold the cells). Reduction of Bifidobacterium results in marked reduction in the tight junction expression, in turn reducing the gut integrity. Parallelly, increased abundance of E. coli activates bacterial TLR2 ligands and other downstream signaling, contributing to colitis pathology.

Chronic Kidney Disease

Low Risk

Delivery of undigested protein to the colon results in the proliferation of proteolytic bacteria. These bacteria ferment proteins and amino acids to generate potential uremic toxins, including p-cresol, indoxyl sulfate and trimethylamine N-oxide. Impaired gut barrier function allows translocation of uremic toxin into systemic circulation. This contributes to chronic kidney disease (CKD) progression.

Crohns Disease

Low Risk

Increased abundance of Enterobacteriaceae activates other enteric pathogens that trigger a set of inflammatory pathways, causing irritation of your gut. For instance, Sulfate reducing bacteria inflame the lining of the gut, while Clostridium and certain fungi trigger the factors that decrease anti-inflammatory bacteria (Lactobacillus, Faecalibacterium), cumulatively triggering or inducing to Crohn's disease.

Irritable Bowel Syndrome

Low Risk

The gut microbiota is important in the development and regulation of intestinal immunity. The intestinal immune system interacts with the gut microbiota and helps in maintaining normal gastrointestinal functions, and any alteration in gut microbiota may be associated with activation of mucosal immunity and cause inflammation. Intestinal infection with pathogenic bacteria results in a transient disruption of the resident gut microbiota which is a risk factor for IBS. Release of these inflammatory mediators are known to cause irritable bowel syndrome.

Non-Alcoholic Fatty Liver Disease

Low Risk

Microbiota promote the absorption of monosaccharides from the gut, thereby triggering lipogenesis in the liver. Dysbiosis is associated with reduced synthesis and secretion of fasting-induced adipocyte factor a powerful metabolism and adiposity regulator belonging to the angiopoietin-like protein family in enterocytes, which results in increased activity of lipoprotein lipase (LPL), responsible for the secretion of triglycerides (TG) from very low-density lipoprotein, eventually resulting in the augmented uptake of fatty acids and accumulation of TG in the adipocytes and leading to NAFLD.

Atherosclerosis

Low Risk

Trimethylamine-N-oxide (TMAO) is a product of microbial-human co-metabolic pathway, which is derived from dietary (food based) choline and carnitine and converted to trimethylamine (TMA) by anaerobic bacteria residing within the lumen of the gut. TMA is then oxidized by a liver enzyme to TMAO. This TMAO is known to be a pro-atherogenic compound, which is directly implicated in the development of plaques inside the arteries. A dysbiosis in the intestinal microbiota, resulting in increased anaerobic bacteria, is thought to contribute to the chronic inflammatory state, production of TMAO and eventually atherosclerosis.

Obesity

Moderate Risk

Fermentation of polysaccharides by gut microbes results in the production of short chain fatty acids (butyrate, propionate, acetate), carbon dioxide (CO2), and hydrogen (H2). Butyrate is an important energy substrate for the colonic epithelium. Acetate and propionate can be taken up by the liver and used as substrates for lipogenesis and gluconeogenesis. This result in increased availability of calories and adiposity to the host leading to obesity

Colorectal Neoplasm

Moderate Risk

Gut bacteria like Escherichia coli, Bacteroides fragilis Enterococcus etc., produces toxins that are reported to be involved in the development of cancers. Specifically, these toxins are called enterotoxigenic (in simpler terms - toxic to genes), which means these toxins can directly damage the DNA resulting in activation of uncontrollable cell proliferation, which eventually leads to cancer.

Diabetes Mellitus Type 2

Moderate Risk

Diabetes mellitus is associated with chronic (slow developing) low-grade inflammation, and gut microbes have been shown to contribute to this. Lipopolysaccharides (LPS), which are components of the cell walls of Gramnegative bacteria, play a key role in the development of such chronic inflammation, resulting insulin resistance in fat, liver and muscle cells, eventually leading to Diabetes Mellitus Type 2.

Constipation

Moderate Risk

There are two important luminal (gut) factors, modulated by the gut microbiota, which maintains smooth muscle contraction and balanced bowel movements. The factors include short chain fatty acids (SCFAs) and bile acids. The absence of SCFAs due to low-fiber diet inhibit mucin secretion by intestinal goblet cells, reduce stool volume by stimulating water and electrolyte absorption, and inhibit smooth muscle contraction in the colon, causing imbalanced bowel movements/constipation.

Depression

Moderate Risk

Depression is a syndrome (a group of symptoms) characterized by sad or irritable mood exceeding normal sadness or grief, both in its intensity and duration. On one end, specific gut microbes (like Blautia, Clostridium, Klebsiella, & Streptococcus) are known to be higher in individuals with depression, which increase inflammation causing biochemicals (like cytokine) to cause depression. On the other end, certain other microbes (like Lactobacillus rhamnosus, Bifidobacterium breve etc.) are known to increase serotonin activity, and decrease norepinephrine and dopamine activities, overall reducing symptoms of depression. Antidepressants also act in a similar way, but having a healthy gut have emerged as a better way to manage depression.

Hypertension

Moderate Risk

The fermentation of dietary fiber by gut microbiota generates short-chain fatty acids (SCFAs) like acetate, propionate, and butyrate. Butyrate is used by colonocytes (cells of the colon) to maintain the intestinal barrier and decrease local inflammation, while small amounts are transported with acetate and propionate to the liver through the portal vein. Most of the propionate is metabolized by the hepatocytes (liver cells), whereas acetate and remaining proportions of propionate and butyrate are released into the systemic circulation, they can reach organs involved in the regulation of blood pressure and help to maintain or reduce the blood pressure.

Rheumatoid Arthritis

Moderate Risk

The human gut microbiota and their metabolites can regulate immune cells and cytokines via epigenetic modifications. For example, short-chain fatty acids (SCFAs) produced by gut microbiota promote the differentiation of natural T cell into Treg cells by suppressing histone deacetylases (HDACs). Thus, resulting bacterial metabolites cause aberrant immune responses via epigenetic modifications, leading to Rheumatoid arthritis.

Anxiety

Moderate Risk

It is defined as intense, excessive and persistent worry and fear about everyday situations. Anxiety is mostly induced by stress that triggers immune cells to produce biochemicals (like Interleukin-6) that cause symptoms of anxiety. Several gut microorganisms, like species of Bifidobacterium and other belonging to group of Bacteroides, release tryptophan, a precursor of neurotransmitter serotonin and Bacillus, Enterococcus species produce norepinephrine, and dopamine. All these three biochemicals together reduce the symptoms of anxiety by increasing the action of a brain chemical called gamma-aminobutyric acid (GABA). Hence, gut microbiome has emerged as a key factor to manage anxiety.

Prone to Fatigue

High Performance Potential

Tiredness can be a normal response to physical and mental activity. In most normal individuals are quickly relieved from regular fatigue (usually in hours to about a day, depending on the intensity of the activity). However, extreme tiredness resulting from physical exertion defines the state of fatigue. Twitch muscle fibers maintains the contractile responses while performing different motor tasks, and is directly associated with fatigue. Higher abundance of Lactobacillus acidophilus, and supplementation with multi-strain probiotic of Lactobacillus and Bifidobacterium have shown better contractile responses and hence minimizing fatigue.

Muscle Strength

High Performance Potential

Muscular strength is a component of fitness that is necessary for optimal well-being and quality of life. In general, physical endurance is directly correlated to muscle strength. Smooth muscle works most efficiently, and needs much less energy for its activity and they display considerable plasticity when healthy and young. However, these cells can switch to largely non-contractile mode in response to inflammatory stimuli, diet or other factors, which result in loss of plasticity and in turn contractibility. Supplementation with multi-strain probiotic of Lactobacillus and Bifidobacterium have shown better contractile responses and hence better muscle strength.

Physical Endurance

High Performance Potential

The ability to perform strenuous, large-muscle exercise or activities for a prolonged period is termed as physical endurance. High endurance sports / training is accompanied with production of oxidative stress, due to over production of reactive oxygen species (ROS) and reactive nitrogen species (RNS). Studies have observed that high abundance of Lactobacillus paracasei, Bifidobacterium sp., Lactobacillus rhamnosus and Faecalibacterium prausnitzii, in the gut aids in management of oxidative stress and hence positively correlated with endurance.

Aerobic Endurance

Moderate Performance Potential

Aerobic endurance is the ability to sustain an aerobic effort over time, such as distance running or cycling. Aerobic endurance maintains the ability of the cardiovascular system to deliver oxygen to working muscles and the ability of the muscles to utilize that oxygen. The most common quantification of endurance is the maximal rate of oxygen uptake (VO2max). High abundance of Faecalibacterium prausnitzii has been associated with higher aerobic endurance.

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