



**Biocidin
Botanicals®**

Microbiome and Therapeutic Diets

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GLUTEN

Therapeutic Diet: Gluten-free diet

How dysbiosis contributes to food intolerance:

Dysbiosis can increase leaky gut and gluten intolerance.

Food Sources:

- Wheat
- Rye
- Barley
- Triticale
- Spelt
- Kamut

SALICYLATES

Therapeutic Diet: Low Salicylate Diet

How dysbiosis contributes to food intolerance:

Pathogenic bacteria release phenolic toxins that overwhelm the sulfation system, contributing to an inability to detoxify salicylates. This creates salicylate intolerance.

Food Sources:

FRUITS

- Berries (strawberries, blueberries, raspberries)
- Cherries
- Grapes
- Oranges
- Peaches
- Plums
- Pineapples

VEGETABLES

- Bell peppers
- Broccoli
- Cucumbers
- Eggplants
- Spinach
- Tomatoes and tomato products (sauces, pastes)

HERBS AND SPICES

- Curry powder
- Cayenne pepper
- Paprika
- Thyme
- Turmeric

NUTS AND SEEDS

- Almonds
- Peanuts
- Sunflower seeds

GRAINS

- Wheat and wheat products
- Buckwheat

BEVERAGES

- Coffee
- Tea (both black and green)

OTHERS

- Honey
- Vinegar (especially balsamic and red wine vinegar)
- Wine (especially red wine)

AMINES

Therapeutic Diet: Low Amine Diet, Low SAG Diet (Salicylate, Amine, Glutamate)

How dysbiosis contributes to food intolerance:

Pathogenic bacteria release toxins that overwhelm the sulfation system, impairing the ability to detoxify amines.

Food Sources:

PROTEIN-RICH FOODS

- Meat (especially processed and aged varieties)
- Fish (especially canned or smoked varieties)
- Poultry (especially dark meat)
- Eggs

FERMENTED FOODS

- Cheese (aged and processed varieties)
- Soy sauce
- Miso
- Tempeh
- Sauerkraut
- Fermented pickles

BEVERAGES

- Wine (especially red wine)
- Beer
- Some types of tea (black tea)

FRUITS

- Avocado
- Banana
- Pineapple
- Plums

VEGETABLES

- Tomatoes and tomato products (ketchup, sauces)

NUTS

- Peanuts

CHOCOLATE & COCOA PRODUCTS

- Chocolate
- Cocoa

COOKING METHODS

- Browning
- Grilling
- Charring
- Overcooking

HISTAMINES

Therapeutic Diet: Low Histamine Diet

How dysbiosis contributes to food intolerance:

Dysbiosis can cause damage to the gut lining and impair the body's ability to metabolize histamine consumed in food (the main source of histamine). Additionally, some bacteria produce histamine, contributing to the total load and histamine intolerance.

Food Sources:

FERMENTED FOODS

- Cheese (especially aged varieties)
- Sauerkraut
- Kimchi
- Miso
- Soy sauce
- Vinegar (including balsamic vinegar)

PROCESSED AND CURED MEATS

- Bacon
- Salami
- Pepperoni
- Ham
- Sausages

FISH

- Canned fish of any kind
- Salmon
- Tuna
- Mackerel
- Sardines
- Anchovies
- Shellfish
- Shrimp
- Lobster
- Crab

VEGETABLES

- Tomatoes and tomato products (ketchup, sauces)
- Eggplant
- Spinach

FRUITS

- Strawberries
- Pineapple
- Citrus fruits (oranges, lemons)

BEVERAGES

- Wine (especially red wine)
- Beer
- Champagne

SOME DAIRY PRODUCTS

- Yogurt
- Buttermilk

GLUTAMATE

Therapeutic Diet: Low Glutamate Diet

How dysbiosis contributes to food intolerance:

Deficiencies in beneficial bacteria *Lactobacillus* and *Bifidobacterium* contribute to a reduction in GABA and an increase in glutamate, potentially impacting glutamate tolerance in food.

Food Sources:

PROTEIN-RICH FOODS

- Meat (beef, pork, chicken, turkey)
- Fish (especially tuna and mackerel)
- Eggs
- Dairy products (cheese, milk)

FERMENTED FOODS

- Soy sauce
- Miso
- Tempeh
- Fermented pickles

VEGETABLES

- Tomatoes
- Mushrooms
- Spinach

FRUITS

- Grapes
- Ripe tomatoes

GRAINS

- Wheat
- Barley
- Corn

SEAWEED

- Kelp
- Nori

FOOD ADDITIVES

- Monosodium glutamate (MSG)
- Hydrolyzed Vegetable Protein
- Autolyzed Yeast
- Hydrolyzed Yeast
- Yeast Extract
- Soy Extracts

OXALATES

Therapeutic Diet: Low Oxalate Diet

How dysbiosis contributes to food intolerance:

Antibiotics wipe out beneficial bacteria that break down oxalate. Leaky gut from pathogenic microbes can also cause high oxalate levels in the body, contributing to reactions to oxalates in food.

Food Sources:

LEAFY GREENS

- Spinach
- Swiss chard
- Beet greens
- Collard greens
- Kale

NUTS AND SEEDS

- Almonds
- Cashews
- Sesame seeds
- Pistachios

FRUITS

- Berries (strawberries, blueberries, raspberries)
- Grapes
- Figs
- Kiwi
- Oranges

VEGETABLES

- Beets
- Okra
- Sweet potatoes
- Eggplant
- Rhubarb

COCOA AND CHOCOLATE

- Cocoa powder
- Dark chocolate

TEA

- Black tea
- Green tea

LEGUMES

- Beans
- Lentils

FODMAPS

Therapeutic Diet: Low FODMAPs Diet

How dysbiosis contributes to food intolerance:

Small intestinal bacterial overgrowth can cause reactions to fermentable carbohydrates (i.e. FODMAPs).

Food Sources:

FODMAPs (Fermentable Oligosaccharides, Disaccharides, Monosaccharides, and Polyols)

OLIGOSACCHARIDES

FRUCTANS: Found in wheat, onions, garlic, leeks, and grains.

GALACTO-OLIGOSACCHARIDES (GOS): Found in legumes, such as lentils, chickpeas, and beans.

DISACCHARIDES:

LACTOSE: Found in dairy products like milk, yogurt, and soft cheeses.

MONOSACCHARIDES

FRUCTOSE (IN EXCESS OF GLUCOSE): Found in fruits and sweeteners.

HIGH-FRUCTOSE FRUITS: Apples, pears, watermelon, honey, and high-fructose corn syrup.

FRUCTOSE-RICH SWEETENERS: Agave syrup, honey, and high-fructose corn syrup.

POLYOLS

SORBITOL: Found in stone fruits (e.g., cherries, peaches), apples, and some sugar-free products.

MANNITOL: Found in mushrooms and some sweeteners.

DISACCHARIDES

Therapeutic Diet: Grain-free Diet, Specific Carbohydrate Diet/Gut and Psychology Syndrome Diet

How dysbiosis contributes to food intolerance:

Dysbiosis can harm our GI tract and negatively affect the ability to digest disaccharides, creating an inability to tolerate disaccharide sugars.

Food Sources:

SUCROSE

- Table sugar
- Cane sugar
- Beet sugar
- Saccharose

LACTOSE

- Milk sugar found in dairy products such as:
 - Milk (cow's milk, goat's milk, sheep's milk)
 - Yogurt
 - Cheese (some types, as fermentation can reduce lactose content)

MALTOSE

- Found in various foods containing malted wheat and barley, including:
 - Breads
 - Bagels
 - Breakfast cereals
 - Malt extract
 - Molasses
 - Beer

TREHALOSE

- Found in various foods including:
 - Mushrooms and edible fungi
 - Some seaweeds
 - Lobster
 - Shrimp
 - Honey
 - Wine and beer

POLYSACCHARIDES

Therapeutic Diet: Paleo Diet, Grain-free Diet, Specific Carbohydrate Diet/Gut and Psychology Syndrome Diet

How dysbiosis contributes to food intolerance:

Dysbiosis can interfere with polysaccharide digestion by the same mechanisms as with disaccharides, causing an inability to digest grains and starches

Food Sources:

STARCHY VEGETABLES

- Potatoes
- Sweet potatoes
- Butternut squash
- Corn

GRAINS

- Oats
- Barley
- Quinoa
- Brown rice
- Whole wheat

CEREAL GRAINS

- Bran
- Whole-grain cereals

LEGUMES

- Beans (black beans, kidney beans, chickpeas)
- Lentils
- Peas
- Soybeans
- Peanuts

ROOT VEGETABLES

- Carrots
- Turnips
- Beets

SEAWEEDS

- Seaweeds, like agar and carrageenan

FRUITS

- Apples
- Bananas
- Berries
- Oranges

NUTS AND SEEDS

- Almonds
- Chia seeds
- Flaxseeds

FUNGI

- Mushrooms