

The SIBO/Histamine Bi-Phasic Diet[©]

Dr. Nirala Jacobi, *BHSc, ND (USA)* www.thesibodoctor.com
Heidi Turner, *MS, RDN* www.foodlogic.org



4–6 week dietary protocol for managing histamine intolerance and SIBO

WHAT IS SIBO?

Small intestine bacterial overgrowth is a condition where bacteria which are normally found lower in the large intestine have overgrown in the small intestine instead.



Health care disclaimer: This treatment protocol is not intended as medical advice and is best used with the guidance of a health care professional. Please ask your doctor if this protocol is appropriate for your condition before starting.

Abnormal amounts of these bacteria cause a number of problems

1. **They damage the microvilli** — the absorptive surface of the small intestine. This can lead to malabsorption of nutrients. Microvilli are also responsible for the digestion of small starch molecules from food. When the microvilli are not working, the bacteria use these small starch molecules to cause fermentation. This bacterial fermentation produces methane and hydrogen gas. Not only is this uncomfortable, but causes further damage to the microvilli.

Research has now shown that SIBO is a major cause of intestinal permeability, or ‘leaky gut’, a condition where partially digested food particles are absorbed through the lining of the small intestines where they can cause an immune reaction. Leaky gut also causes bacterial by-products to be absorbed — a major trigger for inflammation.

2. Leaky gut can also cause **malabsorption of nutrients** from your food which can cause a wide variety of symptoms such as restless legs at night, fatigue, skin rashes, muscle aching as well as a host of digestive symptoms.
3. The bacteria cause the **motility** of the small intestine to slow down or work improperly, causing further fermentation. Restoring proper motility in the small intestines is a major focus of eliminating SIBO for good and your practitioner is likely to prescribe a “prokinetic” supplement or medication.
4. Many people who test positive for SIBO will also have a co-infection with fungal organisms, a condition known as **SIFO** (small intestine fungal overgrowth) — the SIBO Bi-Phasic diet helps to address this as well.

Visit www.TheSIBODoctor.com
for more information



WHAT IS THE SIBO/HISTAMINE BI-PHASIC DIET?

This protocol has been developed for those suffering from SIBO and histamine intolerance. It is not intended for long term use, but rather as a starting point for those who have SIBO and food reactions. This diet protocol eliminates histamines and fermentable carbohydrates. Once symptoms are controlled, moving into the SIBO Bi-Phasic Diet is recommended. **Please consult with your practitioner before initiating this protocol.**

HISTAMINE INTOLERANCE

Histamine is a substance that is made inside the body as well as found in certain foods. In many cases of SIBO, other foods besides fermentable carbohydrates can be problematic. The most common reactions are to foods containing histamine. Histamine is a substance found in certain foods which can cause symptoms in those with severely disrupted mucosal lining of the small intestines. The depletion of the histamine-digesting enzyme, diamine oxidase (DAO), yeast overgrowth, or the prevalence of histamine producing bacteria are often to blame. As the overgrowth reduces and this lining repairs, histamines typically become less problematic. This food sensitivity is known as Histamine Intolerance, or HIT. Histamine is also made in the body and stored in cells known as Mast cells. Reducing histamine foods can lower the “total load” of histamine.

SYMPTOMS OF HISTAMINE INTOLERANCE

Not everyone with SIBO has histamine intolerance. Beyond the typical gastrointestinal symptoms, those with HIT often experience symptoms that resemble allergies including runny nose, itchy eyes, sneezing, hives, asthma, and chronic cough, as well as other symptoms including headaches, joint pain, anxiety and insomnia. Not everyone with these symptoms has HIT but if you do, eliminating histamines from the diet may provide you some additional relief during treatment.

HISTAMINES IN THE DIET

Histamines in food typically increase with age and fermentation. Fermented foods (vinegars, 24-hour yogurt, wine/beer/cider, sauerkraut, kombucha, kimchi), aged meats (bacon, sausage, ham, canned meats/fish, smoked salmon, bone broths) as well as tomatoes, spinach, eggplant, spicy foods and chocolate are typically the most problematic for those with HIT. Histamines also increase as food ages in the

refrigerator, so leftovers can be an issue for some. There are other foods considered “histamine liberators” (HL) found in certain vegetables, fruits, nuts and eggs.

Histamine liberators do not necessarily contain histamine but can trigger a histamine response. Tolerance to these foods is dependent on the individual.

A note about seafood: While seafood can easily build histamine as it ages, very fresh/frozen seafood may be well tolerated. White fish such as halibut, sole and cod, and very fresh salmon are typically the best tolerated.

HISTAMINE TOLERANCE

Each person is different in their tolerance and threshold to histamine foods. Some find that histamine liberating foods are not at all bothersome to them but high histamine foods are. Others must avoid them all to keep their symptoms controlled. Most, however, will have some tolerance to histamine foods and simply need to stay under their own personal threshold, or the point at which symptoms begin.

HISTAMINE REDUCING FOODS

Try to keep this limited diet as anti-inflammatory as possible by including as many allowed plant-based foods as you can and continue to test HL foods in as you are able. Use anti-inflammatory and mast cell-stabilizing herbs and spices such as black seed oil/spice, turmeric, cilantro, parsley and watercress, and DAO-stimulating olive oil to flavor foods. Try to eat as organically as you can afford to reduce pesticides which can add to the histamine load for some. Some with severe histamine intolerance find a diet high in animal protein can trigger their histamine response. We do not recommend avoiding animal protein as this can limit the diet even further. Just make sure you are focusing on plant-based fats, herbs, spices, vegetables, and fruits. If you are early in treatment and plants are not well tolerated, cooking, blending or juicing them may be better tolerated.

FERMENTED FOODS

Fermented foods such as cultured vegetables, sauerkraut, kimchi, as well as miso and yogurt are wonderful for the digestive tract as they contain high amounts of probiotics or beneficial bacteria. But since these foods are high in histamine, they may not be tolerated and it is best to eliminate them from the diet for now. They can be introduced back in as your symptoms improve and your practitioner allows. Introduce no more than one tablespoon in any given meal and increase only as tolerated.

GENERALLY AVOIDING ALCOHOL

Alcohol is a known gut irritant and disrupter of the normal microbiome of the intestinal tract. It also reduces the amount of DAO you produce and, if fermented (ie. beer, cider and wine), contains high amounts of histamine. It is strongly recommended to avoid all alcohol while on the Bi-Phasic Diet. This is sometimes difficult in social situations. In these instances, clear spirits like vodka and gin are preferred over beer and wine as they do not contain histamine, sulfites or yeast. Please limit alcohol consumption even in these cases.

HISTAMINE ELIMINATION AND REDUCTION

Combining a low fermentable diet with a diet that is low in histamine can be challenging as the list of foods is narrow. While all foods high in histamine and histamine liberators have been eliminated from the diet in Phase 1, once your symptoms have calmed, you are encouraged to test in histamine liberating foods in an effort to expand the variety and balance of the diet. Histamine containing foods are noted with an “H” and should be avoided until later in the treatment process. Histamine liberating foods are noted with a “HL” and should be introduced and maintained in the diet to your personal threshold. A food with an “F/HL” indicates it is both a fermentable carbohydrate and a histamine liberating food and should be avoided until you are ready to add more fermentable carbohydrates back into the diet, unless otherwise noted.

HISTAMINE ELIMINATION AND RE-INTRODUCTION IN THREE STEPS

STEP 1

Phase 1 of the Bi-Phasic Diet lasts two–four weeks. You should avoid all fermentable carbohydrates, histamines and histamine-liberating foods for at least two weeks before considering expanding the histamine liberators (HL) into the diet. Follow the food guide as to which foods to choose.

STEP 2

After two weeks on phase 1, and only once symptoms have reduced, you can start testing HL foods if you wish. Use the Phase 2 “Allowed” list as a guide for foods to introduce. Add in one serving of a new HL food for three consecutive days. If you tolerate, you can keep that food in the diet and layer in another HL food in the same manner. Repeat, as tolerated. If you start experiencing symptoms, reduce to previously tolerated histamine load. Know that you may tolerate one HL food over another, so if you do react to one, wait for the symptom to calm and then continue testing with another. If you do not tolerate a particular food, avoid it until you are further into your treatment and test it again later, as you may gain tolerance as the gut heals. If introducing any of the HL foods creates a return of symptoms, you should return to the baseline diet and wait until Phase 2 before testing again.

STEP 3

Your practitioner will advise you on when you are ready to fully move on to the Phase 2 diet. This will involve adding in higher histamine and histamine liberating foods, as you are ready. When determining which foods to add in first, always consider which foods you miss the most and what will make the diet more enjoyable. In this phase, you will also be able to expand more fermentable carbohydrates into the diet, as noted.

All listed quantities are per meal

PHASE 1 AVOID FERMENTABLE CARBOHYDRATES, HISTAMINE AND HISTAMINE LIBERATING FOODS (2–4 WEEKS)

| | ALLOWED | AVOID |
|---|---|--|
| PROTEIN must be fresh | Beef (organic, not aged), Lamb, Turkey (organic if available), Skinless chicken (organic), Wild/game meats | HISTAMINE (H) HISTAMINE LIBERATORS (HL) Eggs (HL) Pork (HL) Seafood (H / HL) <i>see "Histamines in Food" for info.</i> Seasons/aged meats (ham, bacon, sausage, canned or smoked fish and meats) (H) FERMENTABLE CARBOHYDRATES Legumes, Meats seasoned with garlic/onion |
| DAIRY PRODUCTS | Avoid all dairy | Avoid all dairy |
| VEGETABLES unlimited | Alfalfa sprouts, Bamboo shoots, Bok choy, Capsicum/bell peppers (not spicy), Carrot, Chard/Silverbeet, Chives, Cucumber, Ginger, Kale, Lettuce, Parsnip, Radicchio, Radish, Rocket/arugula, Spring onion (green part only), Sunflower sprouts, Witlof | HISTAMINE (H) HISTAMINE LIBERATORS (HL) Capsicum (spicy/chili) (H) Eggplant (H) Olives (H) Spinach (H) Tomato (red) (H) <i>green or yellow cherry tomato may be OK</i> FERMENTABLE CARBOHYDRATES/STARCH (F) Cauliflower, Corn, Garlic, Mushroom, Onion, Sweet Potato, Starch powder: arrowroot, corn, rice, tapioca |
| VEGETABLES one serve per meal | Asparagus – 2-3 spears Artichoke hearts – 1/8 cup Beetroot – 2 slices Broccoli – 1 cup Brussels sprouts – 1/2 cup Cabbage – 3/4 cup Cabbage, savoy – 1/2 cup (<i>wombok</i>) Celery – 1/2 stick Celery root – 1/2 cup Fennel bulb – 1/2 cup Green beans – 12 ea Leek – 1/2 ea Peas (green) – 1/4 cup Potato (white) – 1 med size Pumpkin – 1 cup Snow peas – 5 pods Tomato (green or yellow cherry only) – 5 ea Zucchini – 1 cup | |
| FRUITS two serves per day | Blueberries – 1/2 cup Cantaloupe/Rockmelon – 1/2 cup Grapes – 10 ea Lime (to flavour, fresh squeezed) Lychee – 4 Honeydew melon – 1/2 cup Kiwi – 1 ea Lychee – 5 Papaya – 1/2 cup Passion fruit – 1 ea | HISTAMINE (H) HISTAMINE LIBERATORS (HL) Avocado (F/HL) – 1/4 fruit <i>can test in with HL but limited to recommended amount</i> Banana (H) Kiwi (HL) – 1 ea Lemon (HL) (fresh squeezed, likely tolerated) Orange (HL) Raspberries (HL) Strawberries (HL) Tangerine (HL) |

ea = each tsp = teaspoon tbsp = tablespoon

All listed quantities are per meal

PHASE 1 AVOID FERMENTABLE CARBOHYDRATES, HISTAMINE AND HISTAMINE LIBERATING FOODS (2–4 WEEKS)

| | ALLOWED | AVOID |
|--|---|--|
| FRUITS (CONT'D) two serves per day | Paw paw – ½ cup Pomegranate – ½ small or ¼ cup of seeds Rhubarb – 1 stalk | FERMENTABLE CARBOHYDRATES (F) Apple, Apricot, Blackberries, Canned fruit in fruit juice, Custard apple, Fig, Jam, Mango, Nashi, Nectarine, Peach, Pear, Persimmon, Plum, Watermelon |
| GRAINS, STARCHES, BREADS AND CEREALS | Avoid all, but if practitioner allows, can limit to: Quinoa – ½ cup White rice (basmati, jasmine only) – ½ cup cooked | Avoid all, but if practitioner allows, can limit to: Quinoa – ½ cup White rice (basmati, jasmine only) – ½ cup cooked |
| LEGUMES lentils, beans | Avoid | Avoid |
| SOUPS | Freeze large batches in single servings to reduce histamine production Homemade broths (organic only): chicken, beef, lamb, turkey, 2-hour broths only | Bone broth (H/F) Canned soups and soup bouillon (H/F) |
| BEVERAGES | Tea (herbal) Water (filtered only) | (All H): Alcohol, Beer, Cider, Club Soda, Coffee, Energy drinks, Fruit juices (H/F), Kombucha, Liqueurs and spirits (dark), Seltzer water, Soft drinks, Tea (black, green), Wine |
| SWEETENERS | <i>Yeast overgrowth: limit /avoid all except Stevia</i> Dextrose/glucose, Organic honey (clear) — max. 2 tbsp per day, Stevia (100% pure, no inulin) | Artificial sweeteners (avoid completely) (HL), Cane sugar, Chocolate cocoa, Cacao (H/F), Maple syrup, Sugar alcohols (xylitol, mannitol, sorbitol) |
| NUTS/SEEDS | Coconut flour/shredded – ¼ cup Coconut milk (no thickeners) – ¼ cup Coconut cream — 2 tbsp Macadamias – 20 ea | All other nuts/seeds (HL) — <i>can introduce upon practitioner's approval to low FODMAP guideline recommendations</i> |
| CONDIMENTS | All fresh and dried herbs and spices except those noted in 'Avoid' Green salsa (without onions/garlic) – 1-2 tbsp | HISTAMINE (H) HISTAMINE LIBERATORS (HL) Capsicum/peppers (spicy): chili, cayenne and their sauces (H) Allspice, Cardamom, Cinnamon, Cloves, Nutmeg (HL) Fermented sauces (such as fish, soy, coconut aminos, oyster, tamari) (H) Fermented foods (such as kimchi, sauerkraut, pickles) (H) Mayonnaise (H), Mustard (H), Vinegar (H), Tomato sauce/ketchup (H), Salsa (H) FERMENTABLE CARBOHYDRATES/STARCH (F) READ LABELS! No Asafetida, Chicory root, Garlic, Gums/carageenan/thickeners, Maltodextrin, Starches, Sugar, Onions, |
| FATS/OILS | Butter, Coconut, Flax (low lignin) Ghee, Grapeseed, Infused (garlic,lemon, onion), Olive, MCT, Sunflower | Palm, Soyabean, Pumpkin, Sesame (HL), Walnut |

ea = each tsp = teaspoon tbsp = tablespoon

PHASE 2 TEST HISTAMINE LIBERATING (HL) FOODS AND CONTINUE TO AVOID/LIMIT HISTAMINES (H) AND FERMENTABLE CARBOHYDRATES AS DIRECTED BY YOUR PRACTITIONER

| | ALLOWED | AVOID |
|--|---|---|
| PROTEIN must be fresh | Beef (organic, not aged), Chicken (organic), Eggs (HL), Lamb, Pork (HL), Seafood (H/HL) see "Histamines in Food" for info, Turkey (organic if available), Wild/game meats | HISTAMINE (H) HISTAMINE LIBERATORS (HL) Seasons/aged meats (ham, bacon, sausage, canned or smoked fish and meats) (H) FERMENTABLE CARBOHYDRATES Legumes, Meats seasoned with garlic/onion |
| DAIRY PRODUCTS | Butter, Ghee Homemade yoghurt (plain, organic) (H) <i>this is often well tolerated — reintroduce upon your practitioner's advice</i> | Avoid all other dairy not on allowed list |
| VEGETABLES unlimited | Alfalfa sprouts, Bamboo shoots, Bok choy, Capsicum/bell peppers (not spicy), Carrot, Chard/Silverbeet, Chives, Cucumber, Ginger, Kale, Lettuce, Parsnip, Radicchio, Radish, Rocket/arugula, Spring onion (green part only), Sunflower sprouts, Witlof | HISTAMINE (H) HISTAMINE LIBERATORS (HL) Capsicum (spicy/chili) (H) Eggplant (H) Olives (H) Spinach (H) Tomato (H) <i>green/yellow cherry tomato may be OK</i> FERMENTABLE CARBOHYDRATES/STARCH (F) Canned vegetables, Corn, Garlic, Mushroom, Onion, Sweet Potato, Starch powder: arrowroot, corn, rice, tapioca |
| VEGETABLES one-two servings per meal | Asparagus – 2-3 spears Artichoke hearts – ¼ cup Beetroot – 2 slices Broccoli – ½ cup Brussels sprouts – ½ cup Cabbage – ½ cup Cabbage, savoy – ¾ cup (<i>wombok</i>) Cauliflower – ½ cup Celery – 1 stick Celery root – ½ cup Fennel bulb – ½ cup Green beans – 10 ea Leek – ½ ea Peas (green) – ¼ cup Potato (white) – 1 med size Pumpkin – 1 cup Snow peas – 5 pods Tomato (green or yellow cherry) – 5 ea Zucchini – ¾ cup | |
| FRUITS two servings per day | Avocado (F/HL) – ¼ cup Blueberries – ½ cup Cantaloupe/Rockmelon – ¼ cup Cherries – 3 ea Grapes – 10 ea Honeydew melon – ¼ cup Kiwi (HL) – 1 ea Lemon (HL) – use to flavour, fresh squeezed Lime (HL) – used to flavour, fresh squeezed | HISTAMINE (H) HISTAMINE LIBERATORS (HL) Banana (H) Orange (H) Tangerine (H) FERMENTABLE CARBOHYDRATES (F) Apple, Apricot, Blackberries, Canned fruit in fruit juice, Custard apple, Fig, Jam, Mango |

ea = each tsp = teaspoon tbsp = tablespoon

PHASE 2 TEST HISTAMINE LIBERATING (HL) FOODS AND CONTINUE TO AVOID/LIMIT HISTAMINES (H) AND FERMENTABLE CARBOHYDRATES AS DIRECTED BY YOUR PRACTITIONER

| | ALLOWED | AVOID until further notice |
|--|--|--|
| FRUITS two servings per day (CONT'D) | Lychee – 5 ea Passion fruit – 1 ea Paw paw – ¼ cup Pineapple (HL) – ¼ cup Pomegranate – ½ small or ¼ cup seeds Raspberries (HL) – ½ cup Rhubarb – 1 stalk Strawberries (HL) – ½ cup | FERMENTABLE CARBOHYDRATES (F) CONT'D Nashi, Nectarine, Peach, Pear, Persimmon, Plum, Watermelon |
| GRAINS, STARCHES, BREADS AND CEREALS | Quinoa – ½ cup per serving Rice cakes (plain) – 2 Rice noodles – ½ cup cooked White rice (basmati or jasmine only) – ½ cup cooked per serving | Avoid all other grains, breads, cereals, cakes and biscuits |
| LEGUMES lentils, beans | Lentils (brown, chana, urad) – ½ cup Lentils (green, red) – ¼ cup Lima beans – ¼ cup | All other legumes and beans |
| SOUPS organic | Freeze large batches in single servings to reduce histamine production Homemade broths (organic only): chicken, beef, lamb, turkey, 2-hour broths only | Bone broth (H/F) Canned soups and soup bouillon (H/F) |
| BEVERAGES | Alcohol (clear spirits) – no more than 30ml every other day, Decaf Coffee (black), Seltzer water, Tea (herbal), Water (filtered only) | (All H) Beer, Cider, Coffee (caffeinated), Energy drinks, Fruit juices (H/F), Kombucha, Liqueurs and spirits (dark), Soft drinks, Tea (black, green), Wine |
| SWEETENERS | Dextrose/glucose Organic honey (clear) – no more than 2 tbsp per day Stevia (100% pure, no inulin) | Agave nectar, Artificial sweeteners (avoid completely (HL), Cane sugar, Chocolate, cocoa, cacao (H/F), Maple syrup, Sugar alcohols (xylitol, mannitol, sorbitol) |
| NUTS AND SEEDS | Almonds (HL) – 10 ea OR Almond flour/meal – 2 tbsp OR Almond milk (unsweetened, without added thickeners) – 1 cup Coconut (flour/shredded) – ¼ cup OR Coconut milk (without thickeners or gums) – ¼ cup OR Coconut cream – 2-3 tbsp Hazelnuts (HL) – 20 ea Macadamias – 20 ea Pecans (HL) – 40 ea Pine nuts (HL) – 1 tbsp Pumpkin seeds (HL) – 2 tbsp Sesame seeds (HL) – 1 tbsp Sunflower seeds (HL) – 2 tbsp Walnuts (HL) – 10 ea | Chia seeds, Flaxseed, Peanuts |

ea = each tsp = teaspoon tbsp = tablespoon

PHASE 2 TEST HISTAMINE LIBERATING (HL) FOODS AND CONTINUE TO AVOID/LIMIT HISTAMINES (H) AND FERMENTABLE CARBOHYDRATES AS DIRECTED BY YOUR PRACTITIONER

| | ALLOWED | AVOID until further notice |
|------------|---|--|
| CONDIMENTS | <p>All fresh and dried herbs and spices except those noted in 'Avoid'</p> <p>Mayonnaise (sugarless) (H) –1 tbsp</p> <p>Vinegar (apple cider, rice) –1 tsp</p> | <p>HISTAMINE (H) HISTAMINE LIBERATORS (HL)</p> <p>Capsicum/peppers (spicy ie. chili, cayenne and their sauces) (H)</p> <p>Allspice, Cinnamon, Cloves, Nutmeg – <i>small amount OK</i></p> <p>Fermented sauces (such as coconut aminos, fish, oyster, soy, tamari) (H)</p> <p>Fermented foods (such as kimchi, pickles, sauerkraut) (H)</p> <p>Mustard (H)</p> <p>Vinegars (H), All other</p> <p>FERMENTABLE CARBOHYDRATES/STARCHES (F)</p> <p>READ LABELS! No Asafetida, Chicory root, Garlic, Gums/carageenan/thickeners, Maltodextrin, Onions, Starches, Sugar</p> |
| FATS/OILS | <p>Butter, Coconut, Infused (garlic), Flax (low lignin), Ghee, Grapeseed, MCT, Olive, Polyunsaturated vegetable, Pumpkin seed, Sesame, Sunflower, Walnut (HL)</p> | <p>Palm, Soyabean</p> |