



Nutritional Issues in Patients with Hirschsprung’s Disease
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Case Study One:

4 year old male, born with Hirschsprung’s Disease incontinent with a tendency towards loose stools.

A small percentage of children who are born with HD have a tendency towards diarrhea and have a hyperactive colon. Nutrition modification for this group includes a strict diet along with medication to help slow down the intestines. The constipating diet is designed to decrease the transit time of food through the digestive tract. The goal is to slow the colon down so much that only the 24 hour enema empties the accumulated stool. The diet is very restrictive in the beginning but over time new foods can be carefully introduced. If there is a food the child is craving then parents are encouraged to introduce that food for three days and observe closely what changes occur with bowel movements. If the child soils after eating a newly introduced food, then that food should be eliminated from the diet. The process of liberalizing the diet is a continuous trial of adding new foods and observing stool consistency changes. Not everyone has the same reaction to the same foods. Learning to identify the foods that control an individual’s bowels is helped by journaling to record the effect of a food on bowel control. Due to the limited food choices in Phase I of the Constipating Diet, a daily multivitamin with mineral supplement is recommended.

Table I: Phase I Constipating Diet

Food Groups	Food Recommended	Food to Avoid
Milk and Milk Products	Rice Milk	All others
Vegetables	None	All
Fruits	Applesauce, Apples without skin, bananas	All others
Starches, Bread & Grain	Bread, crackers and cereals made from refined flours, pasta and noodles made from white flours, white rice, pretzels, white potatoes without skin, dry cereals such as: Rice Krispies, Rice or Corn Chex, Corn Flakes, Kixx.	All others
Meat or Meat Substitutes	Baked, broiled, boiled or grilled meat, poultry or fish	All others
Fats and Oils	Limit amounts of butter, margarine and oils in food preparation during this phase, non-stick spray is allowed	All others
Sweets and Desserts	Made from allowed ingredients, plain cake, gelatin or popsicles, Rice Dream Frozen Dessert and limit amounts of concentrated sweets such as jelly and marshmallows	All others

Note: The foods listed above are recommended in Phase I of the constipating diet. Once the child remains clean on this diet a new food can be added and tried for three days to observe the effect of that food.



Case Study Two:

4 year old male born with Hirschsprung’s Disease in need of laxatives to treat constipation.

Many patients present with fecal incontinence. In actuality once their constipation is adequately treated they become continent and can have voluntary bowel movements. To find these patients when we suspect this type of “pseudo-incontinence,” we perform a laxative trial. The patient is instructed to implement a high fiber/laxative diet in addition to the daily laxative medication. The high fiber portion of the diet uses a guideline for a daily total number gram of fiber equal to age plus 10. For example if the child is 5 years old, the grams of fiber recommended per day would be 15. There are two types of fiber, water-soluble and water-insoluble. Water-soluble fiber prolongs stomach-emptying time. Sugars consumed are released and absorbed more

Table II: Foods that may produce a “laxative” effect:

Age	Food
0-introduction of solids	Breast milk
4-6 months	-Oatmeal or mixed grain cereal -Baby prunes
6-8 months	-Foods listed above -Fruit and vegetable baby foods -Prune juice -Apple juice
8-12 months	-Foods listed above -Finely chopped fresh or cooked vegetables: spinach, carrots, cabbage, broccoli, peas, sweet potato, corn, green beans, cauliflower, etc. -Finely chopped fresh fruits: cherries, grapes, pineapple, strawberries, avocado, mango, papayas, plums, apricots, peaches, pears, raspberries, blueberries, oranges, etc. -Finely chopped pieces of dried fruit: raisins, apricots, prunes, dates and figs -High fat dairy products: known to produce a laxative effect for some and constipation for others -High-fat foods: may function as a laxative food for some and a constipating food for others.
1 year and older	-Foods listed above -Dark chocolate, spicy foods and caffeine may be introduced if and when parents feel it is age appropriate.



Table III: High Fiber Kid Friendly Foods
 (Note serving size may vary depending on age)

Type of Food	Serving Size	Grams of Fiber per serving
Multigrain cheerios	½ cup	1.5
Sliced fresh fruit with yogurt dip	1 cup	~3
Cut up fresh vegetables with veggie dip	1 cup	~3
Homemade trail mix:	¾ cup whole wheat chex small box raisins 1oz peanuts	9
Sun chips	11 chips (1oz)	2
Popcorn	2 cups	2.3
Whole grain wheat thins	17 crackers	2

Table IV: Fiber supplements

Type of Supplement	Grams of Fiber	Serving Size
Benefiber	3	1 tbsp
Metamucil	3	1 tbsp
Ground flax seeds	1.9	1 tbsp
Whole flax seeds	2.8	1 tbsp