



Hereditary Fructose Intolerance (HFI) Recommended Diet Guide

The current and only treatment for HFI is the strict exclusion of fructose, sucrose and sorbitol from the diet. Abdominal pain and vomiting may occur if accidentally exposed to fructose. Hypoglycaemia (low blood sugars) may also develop after exposure to fructose.

Sources of Fructose

Fructose in the diet comes from fructose, sucrose and sorbitol. Another potential source of fructose is from industrially manufactured polyols. Polyols are sugar free, low energy bulk sweeteners which are used in many foods and medicines. The most widely used are sorbitol, mannitol and malitol which may be found in foods and medicines. The final source of fructose in the diet is oligofructose (found in some syrups) which should also be avoided.

Fructose is the natural sugar present in fruit, vegetables and honey. Sucrose is found in fruit and vegetables but a much greater source is from sugar cane or beet (used to produce table sugar). Sugar is a major ingredient in cakes, ice creams, lollies but is also found in less obvious manufactured foods such as sauces, tinned meats, stock cubes, savoury snack biscuits etc. Sorbitol is a sweetener commonly used in sugar free products and in some sugar free medications. Please also remember to check toothpastes and chewing gum for sources of sorbitol.

Sugars that can be used in the Diet

Starch, glucose and lactose can be included in the diet. Glucose may be used as an alternative sweetener to table sugar. Although, most HFI'ers have a strong aversion to sweet foods so adding a sweetener is normally not necessary.

Possible Nutritional Problems

When cutting out sources of fruit and vegetables from the diet you may be at risk of vitamin C and possibly folic acid deficiency. Lack of dietary fibre may also become an issue and this may be addressed by including some pulses and oats in the diet.

FOODS ALLOWED	FOODS TO AVOID
SUGARS, SWEETENERS, PRESERVES	SUGARS, SWEETENERS, PRESERVES TO AVOID
<p>Glucose, glucose polymers, glucose syrup Dextrose, lactose, starch, maltose, Maltodextrin, malt extract, glycerol, saccharin, aspartame, acesulfame K, sucralose (E955)</p> <p>Polyols: erythritol, xylitol, lactitol</p>	<p>Sugar or sucrose (cane or beet) - including white, brown, caster, icing sugars.</p> <p>Fruit sugar, fructose, laevulose, honey, treacle, molasses.</p> <p>Polyols: sorbitol, maltitol, mannitol, lycasin, isomalt.</p> <p>Golden syrup, corn syrup, invert syrup, high fructose or isoglucose syrups, honey, hydrogenated glucose syrup, maple syrup, jam, marmalade, Lemon curd</p>
FRUIT ALLOWED	FRUIT TO AVOID
Avocado, rhubarb (occasionally)	All other fruit
VEGETABLES ALLOWED ** Cooked veg preferred over raw	VEGETABLES TO AVOID
<p>**Total daily fructose intake from vegetables should not exceed 1.0-1.5g/day</p> <p>Seaweed, vine leaves allowed freely</p> <p>Group 1 – Potatoes (old) <i>1 portion = approximately 0.3g fructose</i></p> <p>Boiled – 2 small egg size (100g) Packet (flesh only) – 1 medium (100g) Mashed – 2 tablespoons (100g) Roast potatoes – 2 small (100g) Chips – medium portion (120g) Plain crisps – 2 small packets</p> <ul style="list-style-type: none"> • Potato waffles (1) • Potato croquettes (2) (Check to ensure does not contain sugar) 	<p>Beans (green, French, runner beans), Beetroot, Brussels sprouts, capsicum, carrots, cauliflower, gherkins, okra, onion, garlic (can be tolerated by some HFI'ers in small amounts), kohlrabi, parsnip, peas, pepper, plantain, pumpkin, shallots, spring onion, squash, swede, sweet corn, sweet potato, tomato, tomato puree</p> <p>Baked beans, tinned vegetables with added sugar,</p> <p>Mayonnaise or salad cream, coleslaw. Or any pre made salads eg pasta or potato salads</p> <p>Flavoured crisps / chips</p> <p>Pickles, chutney</p>

Group 2 – Veg containing <0.5g fructose/100g

1 portion = approx. 0.15g fructose where a small portion is 1 tablespoon (30g) unless indicated otherwise

Celery

Globe artichokes (1 globe, 50g)**

Mushrooms

Sauerkraut

Spinach*

Watercress (1/2 bunch)

Beans: haricot, mung, red kidney

Dried split peas

Lentils

*** Some HFI'ers have reported experiencing issues after ingesting artichokes*

**Remove stems. Eat leaves only.*

Group 3 – veg containing 0.5-1g fructose/100g

1 portion = approximately 0.3g fructose where a small portion is 1 tablespoon (30g) unless indicated otherwise)

Eggplant – 1 slice (30g)

Asparagus – 2 spears (50g)

Bean sprouts

Broccoli – 1 spear (50g)*

Cabbage

Cucumber – 8 thin slices (40g)

Fennel – (45g)

Jerusalem artichoke – (40g) **

Celeriac (35g)

Leeks – ¼ medium (30g)

Lettuce – 4 small leaves (25g)

New potato – 1 small (50g)

Radish (red) x 4 (40g)

Spring greens

Turnip

Beans- black eye, broad, butterbean, soya

Chickpeas

*** Some HFI'ers have reported experiencing issues after ingesting artichokes*

**Remove the stalks. Eat the floret only.*

MILK & MILK PRODUCTS ALLOWED	MILK & MILK PRODUCTS TO AVOID
<p>Infant formula and follow-on milk (check there is no added sucrose, fructose or honey)</p> <p>Cow's milk, unsweetened evaporated milk</p> <p>Coffee mate, dried milk powder (unsweetened)</p> <p>Cream Cheese, plain cottage cheese</p> <p>Natural yoghurt</p>	<p>Flavoured milk, condensed milk milkshake powders and syrups</p> <p>Liquid soya milk</p> <p>Aerosol cream</p> <p>Cheese with added ingredients, e.g., fruit, nuts</p> <p>Fruit and flavoured yoghurt, fromage frais</p> <p>Ice cream, sorbet</p>
EGGS	EGGS TO AVOID
<p>Allowed freely</p>	<p>Meringue</p> <p>Egg cooked into cakes, pancakes with sugar etc.</p>
MEAT & POULTRY ALLOWED	MEAT & POULTRY TO AVOID
<p>All fresh meat and poultry</p> <p>Processed meat products (check there is no added sucrose, fructose or honey)*</p> <p>*Check that any processed meats or fish haven't been 'cured' in sugar. Eg bacon, prosciutto or smoked salmon</p>	<p>Processed meats with added sucrose, e.g., meat pasties, meat pastes, pate, sausages/frankfurts, salami, tinned meat</p> <p>Tender sweet meats, e.g. ham, honey cured meats</p> <p>Ready-made meat meals (possible sources of fructose are gravies, sauces, vegetables, breadcrumbs, batter, pastry)</p>
MEAT SUBSTITUTES ALLOWED	MEAT SUBSTITUTES TO AVOID
<p>Soya products, tofu, Quorn</p>	<p>Ready-made meals with these products may contain sucrose</p>

FISH ALLOWED	FISH TO AVOID
<p>Fresh and frozen fish</p> <p>Shellfish</p> <p>Fish tinned in brine, oil or water</p>	<p>Fish tinned in tomato paste</p> <p>Fish paste</p> <p>Fish cakes, fish fingers</p> <p>Ready-made fish meals (possible fructose sources are vegetables, breadcrumbs, batter, pastry)</p>
FLOUR & CEREALS ALLOWED	FLOUR & CEREALS TO AVOID
<p>Flour (white in preference to wholemeal)</p> <p>Buckwheat, cornflour, custard powder, Sago, semolina, tapioca, oatmeal, barley</p> <p>Flaky pastry, filo pastry, shortcrust pastry (not sweetened)</p>	<p>Bran, wheat germ</p> <p>Dessert pastry</p>
PASTA & RICE ALLOWED	PASTA & RICE TO AVOID
<p>Spaghetti, macaroni, other pasta (white preferable over wholemeal)</p> <p>Noodles, egg noodles</p> <p>Rice (white in preference to brown)*</p> <p><i>*Sushi rice is often cooked with added sugar. Ask your local supplier before consuming.</i></p>	<p>Pasta tinned in tomato sauce</p> <p>Pot/Minute Noodles, Tri-colour pasta</p>
BREAKFAST CEREALS	BREAKFAST CEREALS TO AVOID
<p>Porridge, puffed wheat, puffed rice, shredded wheat</p>	<p>Most manufactured breakfast cereals</p>

BREAD & CRACKERS	BREAD & CRACKERS TO AVOID
<p>White bread (prepacked), tortilla wraps</p> <p>Bakery bread (check if sugar added)</p> <p>Cream crackers, water crackers, matzo crackers, original ryvita, plain rice cakes, crumpets (check ingredients, not all suitable)</p> <p><i>*Grains and high carb products – can be sensitive for some HFI'ers. Ingesting these foods can sometimes result in a hypoglycaemic reaction afterwards. There are currently further investigations being undertaken in regard to polyol pathways.</i></p>	<p>Wholemeal/grain bread,</p> <p>Fruit bread, sweetened bread eg malt bread, soda bread, brioche, pain au chocolat & croissants</p> <p>Savoury snack biscuits, corn bread</p>
CAKES, BISCUITS & PASTRIES ALLOWED	CAKES, BISCUITS & PASTRIES TO AVOID
Home-made using permitted ingredients and sweeteners	All cakes, muffins, pancakes, waffles, biscuits and pastries
DESERTS ALLOWED	DESERTS TO AVOID
Home-made using permitted ingredients e.g. custard sweetened with glucose, choux pastry	Most desserts, e.g. jelly, meringue, mousse, gateaux, fruit pie or crumble, yoghurt, ice cream, sorbet, ice blocks, sweeties or lollies
FATS & OILS ALLOWED	FATS & OILS TO AVOID
Butter, margarine, vegetable oils (including olive oil), lard, suet	
DRINKS ALLOWED	DRINKS TO AVOID
<p>Soda water, mineral water (not fruit flavoured)</p> <p>Squashes and fizzy drinks flavoured with saccharin or aspartame only (free from sugar, sorbitol, fruit flavourings or concentrate fruits)</p> <p>Tea, coffee, cocoa, herbal teas (no sugar)</p> <p>Lucozade Original (not fruit flavoured)</p>	<p>Fruit juices, vegetable juices, fruit squash, fizzy drinks, diabetic squash containing sorbitol or fructose, tonic water, fruit ice, slush puppies</p> <p>Drinking chocolate, malted drinks</p> <p>Instant tea mixes, coffee essence</p> <p>Fruit teas</p>

CONFECTIONARY ALLOWED	CONFECTIONARY TO AVOID
<p>Lucozade Sport Glucose Energy tablets – original</p> <p>Dextro energy – dextrose and maltodextrin</p> <p>Glucotabs (BBI healthcare)</p> <p><i>*Some sweets are available that are only made with Glucose OR maltodextrin. Eg Rockets (Smarties in the US)</i></p>	<p>Sweets, chocolate, toffee, jelly, ice blocks, chewing gum, diabetic sweets (sweetened with fructose or sorbitol)</p> <p>Flavoured glucose tablets</p>
GRAVIES, SAUCES & SOUPS ALLOWED	GRAVIES, SAUCES & SOUPS TO AVOID
<p>Vegemite (Marmite, Bovril)</p> <p>White or cheese sauce made with milk, flour, fat and cheese only</p> <p>Homemade gravies made without sugar or vegetables</p>	<p>Gravy granules, stock cubes</p> <p>Bottled sauces and dressings e.g. tomato ketchup, horseradish sauce, mint sauce, soy sauce,</p> <p>Sauce mixes, e.g. sweet and sour, curry</p> <p>Mayonnaise, salad cream or bottled dressings eg Caesar</p> <p>All soups (packet, tinned or fresh)</p>
HERBS, SPICES, NUTS & SEEDS ALLOWED	HERBS, SPICES, NUTS & SEEDS TO AVOID
<p>Pure herbs, mustard and spices, salt, pepper</p> <p>Sesame seeds</p> <p>Pumpkin and sunflower seeds (maximum 10g/day)</p>	<p>Nuts, peanut butter, marzipan</p>
BAKING PRODUCTS ALLOWED	BAKING PRODUCTS TO AVOID
<p>Baking powder, bicarbonate of soda, yeast, arrowroot, food colourings, food essences, gelatine</p>	<p>Check ingredients of food essences.</p>

ALCOHOL ALLOWED (ADULTS ONLY)	ALCOHOL TO AVOID (ADULTS ONLY)
<p>Beer – bitter, lager, mild, pale ale, stout (Guinness), strong ale/barley wine</p> <p><i>Note: sucrose or fructose may be added to bottled, canned or keg beers to adjust the sweetness of the final product</i></p> <p><i>*Sucrose is usually added to cask conditioned beers (sometimes referred to as ‘real’ beers) to generate secondary fermentation within the container</i></p> <p>Wine – red only</p> <p>Spirits</p> <p><i>*Although lime/lemon is low in fructose, adding too much to a drink can result in a hypoglycaemic reaction for some sensitive HFI’ers</i></p>	<p>Low alcohol bitter, alcohol free/low alcohol lager, shandy, fruit beers</p> <p>Cider</p> <p>Wine – champagne, mulled wine, rose, white</p> <p>fortified wines – port, sherry, tonic wine, vermouth</p> <p>Liqueurs</p> <p>Alcopops</p>

DISCLAIMER - The information provided in this guide is for general educational and supportive purposes only and is not intended to replace professional medical advice, diagnosis, or treatment. Hereditary Fructose Intolerance (HFI) is a rare metabolic condition that involves the strict exclusion of Fructose, Sucrose and Sorbitol from the diet. This guide has been compiled by people diagnosed and living with HFI, along with Endocrinologists and Dietitians. Always seek the guidance of your chosen healthcare professional, such as a metabolic specialist, endocrinologist or dietitian, before making any changes to your or your child’s diet. HFI Support Australia, www.hfisupport.org.au and its contributors do not accept liability for any loss, damage, or injury caused by reliance on the information provided.