

Recommendations for establishments:

- Have information on ALL the ingredients that are added to each dish.
- Avoid cross-contamination, avoid using pans or utensils that have been used to cook fructose products.

It is essential to know in detail the ingredients of the dishes and the composition of manufactured foods, in many cases the affected don't eat dishes that are allowed or they eat dishes with some source of fructose (of which the affected or waiter are unaware).

It is much simpler for the affected to know how the dishes prepared or what the dishes contain rather than to ask what he can and cannot eat, since it is a long and complicated list.

[http://www.aaih.com/](http://www.aaih.com)
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Bibliography:

- Edulcorantes en pacientes con HFI. Acta Pediatr Esp. 2014;72:15-23
- Información sobre excipientes. Circular nº 2/2008. Dirección General de Farmacia y Productos Sanitarios.
- Normas de identidad y pureza de los edulcorantes utilizados en los productos alimenticios. Real Decreto 299/2009 de 6 de marzo. BOE, nº 68 (20-3-2009).
- The Joint FAO/WHO Expert Committee on Food Additives (JECFA).
- European Food Safety Authority (EFSA).
- Food and Drug Administration (FDA).

HEREDITARY FRUCTOSE INTOLERANCE (HFI)

1. **What is HFI?** This is a metabolic illness. These patients cannot take fructose because they cannot metabolize (remove) fructose in the body, if they ingest fructose it is accumulated as a toxic product (especially in the liver).

2. Symptoms:

- If HFI patients eat a large amount of fructose they suffer an acute intoxication: abdominal pain, vomiting, drowsiness, shock, severe renal and hepatic alterations and hypoglycemia, which can lead to coma and even death.

- If they eat small amounts of fructose they suffer a chronic intoxication with feeding difficulties, vomiting, liver disorders and growth retardation.

3. **Are there other types of fructose intolerance?** Yes, there is another less severe fructose intolerance similar to lactose intolerance. If these patients consume fructose they have diarrhea and gas. Furthermore their diet is different and they can tolerate things that patients with HFI cannot eat.

Information for HFI Spanish association:

[http://www.aaih.com/](http://www.aaih.com)
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4. What is fructose and where is it?

Fructose is a type of sugar found naturally in foods such as honey, fruits and many vegetables (tomato, onion, pumpkin, carrot, peppers, etc.).

The list of permitted or contraindicated vegetables may vary between patients depending on age and tolerance. But the tolerance in these patients is always very small. Always ask yourself what you can or cannot eat.

Other sweeteners such as sucrose or common sugar are also not allowed. Another source of fructose is sorbitol, which is used as a sweetener in diet products.

In addition fructose, sucrose and sorbitol are used in many foods as preservatives. Therefore not only products considered "sweet", such as jams or caramelized products should be avoided but also other salty products containing such added sugars: sauces and dressings (fried tomatoes, ketchup, commercial mayonnaise, soy sauce, soups, canned vegetables, sausages, pates, pastas, puff pastry, crackers, breads, etc.) In these cases the composition must always be checked on the label.

Moreover a spoonful of sugar is often added to traditional dishes to decrease acidity or to improve the taste.

5. "Sugar free" diet products or light products?

Many of these products, despite not having sugar, have other types of sweeteners that are also not tolerated in patients with HFI.

ALLOWED sweeteners in HFI patients:

Acesulfame
Alitame
Aspartame
Cyclamate
Erythritol
Glucose, dextrinomaltose
Glucose syrup*
Neohesperidine dihydrochalcone
Saccharin
Sucralose*
Steviol glycosides
Taumatina
Xylitol

*Caution: may contain fructose or sucrose in small amounts.

Sweeteners CONTRAINDICATED in patients with HFI:

Agave nectar
Coconut Sugar
Fructose
High Fructose Corn Syrup (HFCS)
Inulin, oligofructose, fructo-oligosaccharides.
Isomaltitol
Inverted sugar
Lactitol
Maltitol or maltitol syrup
Mannitol
Maple syrup
Saccharose
Sorbitol or sorbitol syrup
Sucromalt
Tagose