Sugar Alternatives
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Some common alternatives
There’s no doubt that the sweetness of sugar makes it so popular but it’s caloric value and associated medical conditions has given rise to popularity of commercially produced sweeteners as alternatives. These include aspartame, saccharin, cyclamate and glycyrrhizin to name a few.

Research into these alternatives has raised questions over various health concerns and caused rise to much scientific debate. For example, studies found that saccharin was carcinogenic in animals, cyclamate produced toxic metabolites and glycyrrhizin promoted hormone imbalance\(^1\). Despite health concerns, use of these sweeteners is widespread. High Fructose Corn Syrup is also a commonly used sweetening agent found in many processed foods and more information is available separately.

Focus on Aspartame
Aspartame is one of the more researched sweeteners, again dividing opinion when it comes to safety. Some studies report that it is safe at current levels of consumption\(^2\), however many others link aspartame to various health conditions including migraines\(^3\), impaired glucose regulation\(^4\), fibromyalgia\(^5\) and phenylketonuria\(^1\).

In relation to cancer, aspartame has demonstrated an inflammatory and angiogenic effect\(^6\). This essentially means it promotes the creation of new blood vessels that can feed tumours. Long term consumption has also shown imbalanced antioxidant status in the brain\(^7\) and the liver\(^8\).

Upon ingestion, aspartame is broken down, converted and oxidized into formaldehyde\(^3\), a known human carcinogen\(^9\) and embalming fluid. Are we slowly embalming ourselves from within? With this knowledge and the compelling wealth of studies linked to various conditions, there is no doubt that aspartame should be avoided.

What alternatives do we have?
One of nature’s sweeteners that we can use as an alternative is Stevia. This is considered safe for consumption by the World Health Organisation\(^10\) and even better, a recognised therapeutic agent in diabetes, hypertension, myocardial and antimicrobial infections, dental troubles and tumours\(^1\).

It is the Steviol Glycosides (SGs) that give the leaf its sweet taste and contributing to its medical importance, alongside other metabolites such as beta-carotene, riboflavin, thiamine, austroinullin, various terpenes, and flavonoids\(^1\).

In addition to stevioside, the prebiotic inulin (derived from chicory), when used in combination have been shown to have strong antioxidant properties\(^11\), which increases our defenses and in turn promotes health.
8 Abilash M et al (2011) Effect of long term intake of aspartame on antioxidant defense status in liver. Food and chemical