

ALTERNATIVE SUGARS

Agave nectar



Elaine Gardner, British Dietetic Association (BDA) Spokesperson, presents part 2 in our new series of columns on sugar and sugar alternatives.

Name: Agave nectar

What is it? A sweet syrup traditionally produced from a cactus-like plant. New methods of processing mean that it now bears little resemblance to the traditional product that, anecdotally, had health benefits. The product, including those claiming to be 'raw', is now a highly-refined syrup high in fructose. It is very similar to high fructose corn syrup, which is commonly found in carbonated drinks.

Found in? Available to purchase in a light or dark syrup, from health food shops and supermarkets.

Effect on general health: Agave is commonly marketed as a slow-release carbohydrate with a low glycaemic index. This is true as it contains mainly fructose and only low amounts of glucose. Although fructose doesn't raise blood sugar levels in the short-term, it can contribute to insulin resistance when consumed in large amounts. This can cause major increases in long-term blood sugar and insulin levels, strongly raising the risk of metabolic syndrome and type 2 diabetes.

The liver metabolises fructose, but when overloaded it starts turning the fructose into

fat globules, which raise blood triglycerides. Having a high level of triglycerides in your blood can increase your risk of heart disease.

Agave contains more calories than sugar (60 vs 48 calories per 3 tsp), but as it is sweeter you should use less.

Oral health impact: Fructose like sucrose is detrimental to oral health. Bacteria on tooth surfaces metabolise fructose to form acid, resulting in a fall in plaque pH and demineralisation. When the pH rises again to above 5.5 due to the dissipation of acid after about 20–30 minutes, enamel can be reformed and repaired with calcium and phosphate released from the saliva.

Advice for patients: The promotion of agave nectar as a natural and healthy product is unfounded. Its cost is much higher than sugar and there are no advantages in using it instead of sugar.

Agave is a sweetener to avoid as it has negative implications on health outcomes (both general and oral). If used, patients should be advised to maintain optimum oral hygiene through toothbrushing twice daily with fluoridated toothpaste and plaque control measures.

Further reading

1. Stanhope K L, Schwarz J M, Havel P J. Adverse metabolic effects of dietary fructose: results from the recent epidemiological, clinical, and mechanistic studies. *Curr Opin Lipidol* 2013; **24**: 198–206.

BDA The Association of UK Dietitians

Find out more about the British Dietetic Association at: www.bda.uk.com.

Coming up: *Stevia*.

Self-help package successful in combating dentist stress

A paper published in this issue of the *BDJ* evaluates a CPD package designed to reduce stress, build resilience and improve clinical decision-making in primary care dentists.¹

Stress and burnout are common in primary care dentistry. Authors Helen Chapman, Susan Chipchase and Roger Bretherton developed a bespoke bibliotherapy package: a standard method of delivering self-help cognitive behavioural therapy (CBT) which has been used effectively in other groups, and tested it on volunteer dentists in Lincolnshire and Nottinghamshire. The authors aimed to evaluate the efficacy of the package in improving coping skills, building resilience and reducing the impact of anxiety on dentists' clinical decision-making.

The study found a clinically and statistically significant reduction in depression, anxiety and stress levels in the participants at six weeks, and a statistically significant reduction in burnout and hypervigilant decision-making as a result of using the CPD package, as well as an increase in personal achievement. These improvements were maintained at six months and the dentists who participated were extremely positive about the project.

The British Dental Association (BDA) has just launched an online course on *Tackling stress: identifying and dealing with stress in your workplace*. According to the BDA, dental professionals are more likely than the general population to exhibit harmful symptoms of stress such as cardiovascular disease, alcoholism, drug abuse, divorce and suicide. Their new online course will help dentists to identify their personal level of stress, what causes you to be stressed, how you respond, and how you might deal with it. Two modules are available, each providing an hour of verifiable CPD. Visit the CPD Hub: <https://cpd.bda.org/login/index.php>.

1. Chapman H R, Chipchase S Y, Bretherton R. The evaluation of a continuing professional development package for primary care dentists designed to reduce stress, build resilience and improve clinical decision-making. *Br Dent J* 2017; **223**: 261–271.