good SUGAR & Oil

Eat at least five servings of fruits and vegetables a day, use vegetables as the center of the meal.

Remember: do not eat foods boiled in oil, get good cold processed vegetable oils and thus good fatty acids, not trans or cooked animal oils. Eat only Levulose (fructose fruit sugars) not Dextrose (cane, corn, potato, grape sugar). Wellness is your Reward. Remember to chew your food, fruits alone, fluids alone, and melons alone.

Make vegetable and fruit juice part of your daily Wellness Healthy Regime.

**Sugar Substitutes for All Possible Situations**
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This book is dedicated to solutions for better sugars. The dreaded sweet tooth strikes again. Most of us know sugar isn’t the healthiest food item, but the risks go way beyond a sugar crash or a cavity. And artificial sweeteners can sometimes add even more calories to a meal. Instead of going cold (and sugarless) turkey, try some of these healthier sugar substitutions:

1. Fruits are your best sugars

**Fibre and fructose content of popular fruits**

The graph plots the fibre content of each (100g) piece of fruit against its average fructose content. Fruits which contain a lower percentage of fructose and a higher percentage of fibre (which reduces the damage fructose causes), are the best choice. Adults are recommended to eat no more than two pieces of fruit per day.
2. Agave Nectar. History lesson time: The Aztecs used agave thousands of years ago and praised this syrup as a gift from gods. A derivative of the same plant as tequila (cheers!), this golden sweetener tastes similar to honey and is perfect in hot or iced tea. But be sure to use in moderation—agave's high fructose content can sometimes cross it in to the danger food zone!

3. Maple Syrup. The benefits of maple syrup are aplenty: It comes directly from a plant’s sap and contains over 50 antioxidants. Make sure to grab the real stuff (sorry, Aunt Jemima) and spread it over waffles or use it in homemade granola.
2. Lemon. Fans of gin can skip the extra sugar in a Tom Collins and add an extra lemon squeeze—we promise no one will notice.

3. Honey. Thanks to bees, this scrumptious stuff packs an antioxidant punch. Enjoy some in hot tea to help soothe a scratchy throat, or get creative and add a spoonful to homemade salad dressing.

5. Applesauce. Instead of a half-cup white sugar in a batch of oatmeal cookies, swap in an equal amount of applesauce! The natural sweetness from a Golden Delicious or Fuji apple is perfect in an after-dinner treat. Purchase the no sugar-added kind, or make some at home.
6. Erythritol. This sugar alcohol is practically a guilt-free sweet solution. (And the FDA says it’s safe!) At 0.2 calories per gram, the white powder from a plant occurs naturally in many fruits. Plus, it doesn’t lead to tooth decay and other not-so-sweet effects of sugar consumption. It’s not quite as sweet as natural sugar, so try it in chocolate baked goods like brownies.

7. Raisins. For a creative spin on things, blend a cup of raisins in a food processor. With antioxidants and fiber, these little dried grapes add a kick to any baked good.
8. Cinnamon. Spice up a morning cup of coffee with cinnamon. This super spice adds subtle sweetness while **boosting immunity**, no calories included.

9. Unsweetened Cocoa Powder. For a warm winter treat, mix some unsweetened cocoa powder in a glass of hot water or skim milk. It’ll satisfy that sweet tooth without all the extra sugar the sweetened version includes. Add a splash of vanilla extract for extra flavor!

10. Reb A. Hailing from South America, this natural extract comes from the **stevia plant** and is recognized by the **FDA as safe**. It only takes a drop or two to sweeten a bowl of oatmeal.
11. Cranberries. Skip the cup of sugar and add cranberries to a batch of muffins or scones. These little tart treats add a dose of antioxidants refined sugar can’t offer.

12. Processed Dates. Grab a bunch of dates for an extra boost of antioxidants in the next baking experiment. With a low glycemic index and some subtle sweetness, it may be perfect for brownie batter or the base of homemade granola bars. Substitute two-thirds cup for one cup of regular sugar.
13. Grapefruit. For a daily dose of vitamin C, opt for grapefruit juice in a cocktail over soda or tonic water. It'll add a sweet and sour kick to any beverage.
14. **Coconut Sugar.** Get a little tropical and use coconut sugar in a fruit smoothie. Made from the sap of coconut flowers, this natural sugar comes in block, paste, or granulated form. Plus, it’s loaded with potassium, which helps keep our bones strong.

15. **Brown Rice Syrup.** Brown rice syrup comes from (you guessed it!) brown rice. More nutritious than its high-fructose alternative, this buttery and nutty flavored syrup is perfect in granola bars and baked breads.

16. **Lime.** Make juice boxes a thing of the past and spice up a glass of sparkling water with a squeeze of lime. The tart and tang will keep taste buds satisfied without the extra sugar rush.

17. **Puréed Banana.** In the next loaf of banana bread, try using extra-ripe bananas and eliminating the sugar. The fruit naturally becomes sweeter as it ripens, so there’s no need for extra sugar.

18. **Milk Lactose.** The natural sugar in milk adds a touch of sweetness to that morning cup of Joe, so think twice before adding a teaspoon or two of sugar. The lactose in milk may do the trick.

19. **Frozen Juice Concentrate.** Use apple juice concentrate in homemade apple pie. With additional fiber and antioxidants, the pie will be a sweet solution for a nutritious dessert!
20. Barley Malt Extract. Derived from barley, this protein-packed syrup is perfect in a pecan or pumpkin pie. The dark syrup’s similar to molasses and will enhance the flavor of any baked treat.

21. Apricot Puree. Apricots are a nutritional A+ with vitamin C, fiber, and iron. Make some of the sweet stuff right at home and mix it in plain Greek yogurt or enjoy it with hearty whole-grain bread.

22. Fresh-Squeezed Orange Juice. In a batch of homemade bread, swap out the sugar for fresh orange juice. Looking for a cool treat? Freeze some juice in an ice-pop mold rather than buying what’s in the freezer section.

23. Club Soda. Health up that next large glass of fruit juice with some club soda—even a simple three-to-one juice to club soda ratio saves some major sugar calories.

24. Tea Leaves. Fruity or earthy leaves like pomegranate and green tea are naturally sugar-free and add an extra nutritional kick to any beverage. Use them in liquor for a surprising healthy twist.

25. Molasses. What happens when sugar cane, grapes, and beets get together? Molasses! Use this dark syrup in a recipe for gingerbread cookies. It’ll add some extra iron and calcium, which makes the cookies healthy, right?

26. Balsamic Glaze. Ditch the Funfetti frosting and add a generous drizzle of balsamic glaze to angel food cake. Simply simmer balsamic vinegar until it forms a thick syrup.

27. Yacón Syrup. A sweetening agent extracted from the yacón plant, this molasses-y syrup has hints of apple and just half the calories of cane sugar. It’s sweet just like honey, so a little goes a long way in baked goods and raw fruit smoothies.
with all sugars
Do NOT Abuse, never too much never too often never say never

KEEP CALM AND EAT NO SUGAR

eat less sugar you're sweet enough already

Fruit is Delicious Fruit has Sugar Fruit sugar is good for you Eat the damn Fruit.
Glycemic Index Natural Sweeteners

<table>
<thead>
<tr>
<th>Natural Sweetener</th>
<th>Glycemic Index Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stevia</td>
<td>0</td>
</tr>
<tr>
<td>Yacon Syrup</td>
<td>1</td>
</tr>
<tr>
<td>Xylitol</td>
<td>8</td>
</tr>
<tr>
<td>Agave Nectar</td>
<td>15</td>
</tr>
<tr>
<td>Fructose</td>
<td>17</td>
</tr>
<tr>
<td>Rice Syrup</td>
<td>25</td>
</tr>
<tr>
<td>Date Sugar</td>
<td>32</td>
</tr>
<tr>
<td>Coconut Sugar</td>
<td>35</td>
</tr>
<tr>
<td>Apple Juice</td>
<td>40</td>
</tr>
<tr>
<td>Barley Malt Syrup</td>
<td>42</td>
</tr>
<tr>
<td>Honey</td>
<td>50 (30 raw)</td>
</tr>
<tr>
<td>Maple Syrup</td>
<td>54</td>
</tr>
<tr>
<td>Blackstrap Molasses</td>
<td>55</td>
</tr>
<tr>
<td>Turbinado Sugar</td>
<td>65</td>
</tr>
<tr>
<td>Refined White Sugar</td>
<td>99</td>
</tr>
</tbody>
</table>
Apples must be cooked to make puree, or applesauce. Applesauce can be used in cakes, muffins and quick breads as a sugar substitute. The best apples for puree are those with a mild flavor, such as Gala and Red Delicious. Avoid using tart apples such as Granny Smith. To make 1 cup of unsweetened applesauce, wash, peel, core and slice 2 medium apples and cook at medium heat for 25 minutes. Allow the apples to cool slightly and mash them with a potato masher. If you want the applesauce to be smoother, puree them further in a blender.
Fruit puree comes from processing the pulp of fruit. It can be substituted for refined sugar in baking because it contains fructose, the natural sugar occurring in fruit. Purees retain the flavor, color and aroma of the fruit from which they come and add bulk with fiber. Since they also contain water, it's important to reduce the liquid in a recipe by 1/4 cup whenever replacing sugar with puree. One cup or 8 ounces of fruit puree equals 1 to 2 tablespoons of sugar, depending on how sweet you want the recipe.

**Match the Flavor**

Fruit purees work best in recipes such as carrot cake and banana bread that have a fruit or vegetable ingredient. Matching the flavor of the fruit from which the puree comes is the best way to add the puree to a recipe. For example, with banana bread mashed ripe bananas can be substituted for refined sugar while maintaining the desired flavor. One medium ripe banana yields about 6 to 8 ounces of puree when mashed.
Puree Flavours
Pasteurized Frozen Raspberry puree
Pasteurized Frozen Strawberry puree
Pasteurized Frozen Lime puree
Pasteurized Frozen Pineapple puree
Pasteurized Frozen Mango puree
Pasteurized Frozen Passion Fruit puree
Pasteurized Frozen Blackberry puree
Pasteurized Frozen Blackcurrent puree
Pasteurized Frozen Cranberry puree

You can add other sweeteners but not Cane Sugar

Strawberry Sorbet

Raspberry Sorbet
Piña Colada Sorbet
dairy, nut, egg and sugar free!

Strawberry Rhubarb Sorbet
AIP friendly and low-FODMAP!
Date sugar is a marvelous alternative sweetener. It’s not even really a “sugar” in the sense that it was derived from something and processed into concentrated sweetness. Wanna know what it actually is?

*Cooked and ground-up dates!* Really, that’s it.

And dates are just an all-around awesome food. High in carbohydrates, they’re a great thing to have around for people on the GAPS diet. And speaking of that, did you know that *honey isn’t the only sweetener allowed on GAPS*? Dr. Natasha didn’t put date sugar on the list, but she does say dates are okay! And like we just established, date sugar = nothing but dates!

Dates also are a very good source of *tryptophan*, an amino acid. You know how they say that eating turkey makes you sleepy? Well, that’s cause it has tryptophan in it. So if you’ve got hyper kids that want a sugar fix — maybe date sugar is just what you need!
Date sugar bought in stores is pricey. Plus, with some of the kinds I’ve seen, the sugar is almost white. Uh, dates are brown! Skip the overly-processed stuff and just make it yourself. It’s easy!

You’ll need:

- Some dates (find organic medjool dates [here](#))
- A baking sheet (I bought my stainless steel one [here](#))
- A food processor (I dearly love my [little pink Cuisinart](#)) or a coffee grinder ([this one](#) is awesome)

Directions:

Slice and pit the dates. I’m a total newbie to these things — never even had them before starting GAPS. I hear there’s more than one type. Mine is the kind with pits inside — “Medjool” — but if yours doesn’t have pits, welp! Maybe still slice them open anyway. Just for fun. (And to let the air and heat get to the middle parts.)

Spread onto a baking sheet. I like to use my [stainless steel](#) sheet because aluminum is bad news.
Bake at around 250 degrees (275 worked for me, but you may want it a little lower to lessen the chance of overcooking) for 2-3 hours, then turn the oven off, but leave the dates in the oven overnight to dry. You want to get the dates to a point where they are rock hard, but you have to be careful not to burn them while you’re baking. The sugar begins to crystalize and it can get overcooked in a hurry. I tried 325 degrees and the skin on the dates started to get a little too crispy!

Let the hardened dates cool down, then pulse slowly in either a high-powered food processor, or a coffee grinder. I freaking LOVE my coffee grinder. I use it to make almond and coconut flour, because it makes such a nice, powdery mill whereas my little food processor that’s only meant for chopping things, makes sort of a chunky almond meal. Or in this case, date meal. For a fine sugar, I use the coffee grinder.
Pack into a container and refrigerate. Even though the coffee grinder grinds the dates to a fine powder, it does tend to clump (those aren’t chunks of un-ground dates in the pics, just clumps of powder), and it’s very sticky. It’s almost like a cross between brown sugar and molasses. So if you need it to be more powder-like again, you can take out a chunk and whip it up in a food processor to get it manageable again.
**Alternate method:**

If you want to make the sugar more of a “raw” food, to prevent loss of the nutrients found in dates, you can slowly dehydrate them at a low temperature (100-110 degrees) either in a dehydrator, or in the summertime — in a hot car, inside a (turned off) barbecue, or just out in the sun. That would take a couple days, given the hours of hot sunlight available. I haven’t done this yet, but I think it would taste differently than the higher-heat method. The sugar in dates gets all nice and toasty and crystalizes/caramelizes in the oven, changing the flavor.

**What do I do with it?**

Well, date sugar is a little different than other types of sweeteners. It doesn’t dissolve like sugar, so you probably wouldn’t want to try to stir it into your coffee or tea. And if you’re baking with it, just be aware that your treats will have little granules of crunchy date sweetness, which is something I kind of like! If you’re eating grains, date sugar is awesome as a substitute for brown sugar in your oatmeal. Or on top of yogurt or even ice cream!
I’ve also got a recipe I’m brewing up for GAPS-legal snickerdoodles — and instead of granulated sugar topping, we’ll be using this homemade date sugar instead. They’re gonna be amazing, I’m sure!

**GOOD CARBS VS. BAD CARBS**

**WHY CARBOHYDRATES MATTER TO YOU**

**COMPLEX CARBS = GOOD**

Good carbs are also referred to as complex carbohydrates. Their chemical structure and fibers require our bodies to work harder to digest, and energy is released over a longer time.

For the most part, good carbs are in their ‘natural’ state – or very close to it (including whole-grain breads, cereals and pastas).

- Whole Grain Breads
- Bran Cereals
- Green Vegetables
- Fresh Fruits

**WHY ARE THEY GOOD?**

**SIMPLE CARBS = BAD**

Simple carbohydrates are smaller molecules of sugar that are digested quickly into our body. The energy is stored as glycogen in our cells, and if not used immediately gets converted to fat.

Bad carbs are generally ‘processed’ carb foods that have been stripped of their natural nutrients and fiber to make them more ‘consumer friendly.’

- Candy & Desserts
- Sugared Cereals
- Sodas & Sugary Drinks
- Refined Breads

**WHY ARE THEY BAD?**

**CARBOHYDRATES ARE MADE INTO SUGARS FOR THE BODY. IF YOU EAT THEM CORRECTLY YOU CAN INCREASE ENERGY AND HEALTH.**
**Good Carbs help you feel fuller for longer**

- Brown Rice
- Oatmeal
- Wholegrain Bread
- White Bread
- Cookies
- Potato chips

**Bad carbs make you crave more bad carbs**

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**Types of Carbohydrates**

**Healthy Carbs (Complex carbohydrates)**
- Are found in vegetables, fruits and whole grains (beans, legumes, sweet potatoes and yams)
- Take longer for the body to process (stabilize blood sugars)
- Are good fiber sources
- Contain phytonutrients, minerals & vitamins

**Unhealthy Carbs (Simple Carbohydrates)**
- Break down into sugar fast
- Have little to no fiber
- Are found in highly processed foods like cookies, candies, white flour, pastas and chips
- In large amounts are associated with obesity and chronic disease outcomes
FRUCTOSE IN FRUITS
grams of fructose in 100 grams of fruit

Dates (Medjool): 31.05g
Raisins: 29.68g
Figs, dried: 22.93g
Dates (Deglet Noor): 19.56g
Apricots, dried: 12.47g
Prunes: 12.45g
Jackfruit: 9.19g
Grapes, green or red: 8.13g
Pears, bartlett: 6.42g
Cherimoya: 6.28g
Apples: 5.9g
Persimmons: 5.56g
Cherries, sweet: 5.37g
Blueberries: 4.97g
Bananas: 4.85g
Mangos: 4.68g
Kiwi: 4.35g
Papaya: 3.73g
Currants, red & white: 3.53g

Cherries, sour: 3.51g
Watermelon: 3.36g
Plums: 3.17g
Melon, honeydew: 2.96g
Strawberries: 2.44g
Blackberries: 2.4g
Tangerines (mandarin oranges): 2.4g
Raspberries: 2.35g
Oranges (navel): 2.25g
Pineapple: 2.12g
Melon, cantaloupe: 1.87g
Grapefruit, pink or red: 1.77g
Clementines: 1.64g
Peaches: 1.53g
Nectarines: 1.37g
Lemon juice: 1.1g
Apricots: 0.94g
Cranberries: 0.63g
Lime juice: 0.61g

http://FamilyWellnessHQ.com

Data Acquired from USDA National Nutrient Database

TOO MUCH FRUCTOSE IS BAD AND SOME FEW PEOPLE CANNOT TAKE MUCH AT ALL

Hereditary Fructose Intolerance (HFI)

- What is HFI?

- HFI is a condition people are born with, usually in families where there is no previous history. The condition makes it difficult for the body, chiefly the liver and kidney to use fructose or fructose-containing foods. The sugar is taken up by the body, but in attempting to use sugar, toxic substances are produced, which lead to serious illness
Table 2. High-Fructose Foods and Alternatives

<table>
<thead>
<tr>
<th>High-Fructose Foods</th>
<th>Alternatives</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fruits:</strong> apple, cherries, coconut milk, grapes, guava, honeydew melon, lychee, mango, pear, persimmons, pomegranate, quince, watermelon</td>
<td><strong>Stone fruits:</strong> apricot, nectarine, peach, plum</td>
</tr>
<tr>
<td><strong>Dried fruit/bars:</strong> apple, apricot, currant, date, fig, mandarin orange, raisins, pear, prune, tangelo</td>
<td><strong>Berries:</strong> blackberry, blueberry, boysenberry, cranberry, raspberry, strawberry</td>
</tr>
<tr>
<td><strong>Citrus fruits:</strong> grapefruit, kumquat, lemon, lime</td>
<td><strong>Others:</strong> jackfruit, kiwi, passion fruit, pineapple, rhubarb, tamarillo</td>
</tr>
<tr>
<td><strong>Vegetables:</strong> artichoke, asparagus, dandelion greens, endive, onion family</td>
<td>Any vegetable without fructans; cook with but do not consume (use whole in soups then remove)</td>
</tr>
<tr>
<td><strong>Condiments:</strong> barbecue sauce, chutney, honey, plum sauce, relish, sweet-and-sour sauce, tomato pastes</td>
<td>Golden syrup, jam, jelly, maple syrup, marmalade, peanut butter, treacle, yeast extract spreads</td>
</tr>
<tr>
<td><strong>Wheat-based products:</strong> bread, breadcrumbs, breakfast cereals, cakes, cookies, crackers, noodles, pasta, pastries</td>
<td>Rye, barley, and oat bread or crackers; gluten-free pasta, rice, or noodles; cereals low in dried fruit and honey; almond meal cakes and cookies</td>
</tr>
<tr>
<td><strong>Drinks:</strong> fruit juice, chicory-based coffee, fortified wines, port, sherry, sucrose-sweetened soft drinks</td>
<td>Glucose-sweetened sports drinks (e.g., Gatorade), unsweetened teas, coffee in moderation</td>
</tr>
<tr>
<td><strong>Sweeteners:</strong> fructose sweeteners (e.g., fruit sugar or levulose), high-fructose corn syrup</td>
<td>Sucrose in moderation (e.g., table sugar, cane sugar), glucose sweeteners (e.g., dextrose or grape sugar)</td>
</tr>
</tbody>
</table>

Source: Reference 19.

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**Cells lining the small intestine**

- Fructose absorption across the small intestine

**Cells lining the large intestine**

- Fermented by bacteria in the large intestine into gases like hydrogen which can cause symptoms

---

**Diagram**

- Dünndarm (Small Intestine)
- Dickdarm (Large Intestine)
- Fruktose (Fructose)
- Malabsorption
- Bakterien (Bacteria)
- Symptome (Symptoms)
- GLUT-5
- H₂ → CH₄ → CO₂
- Kurzketttige Fettsäuren

---

**IMUNE e-training**

anywhere, anytime
The Health Education Council has launched the Rethink Your Drink campaign. They are encouraging healthy drink choices, like replacing sugar-sweetened beverages (think soda, sports drinks, and energy drinks) with water. Their goal is to read 8,000 pledges by the end of September. As someone who constantly carries around a water bottle, I am on board with this campaign and immediately pledged to drink water instead of sugary drinks for the next 30 days. I know that for most other people, this would be a tough challenge. Many people drink soda everyday, or don’t think twice about picking up a Red Bull or a mocha. It’s shocking how much sugar is in pretty much any drink you can get at Starbucks. I don’t want to spoil your annual pumpkin spice latte, but seriously check it out and think about making it homemade or opting for water instead.
I came across this eye-opening photo online. I think it’s particularly important to watch what our children are drinking and eating. Do they need all that sugar in sweetened chocolate milk or soda? Instead, let’s encourage them to have water.

I know, I know. Water is boring. I hear people say that all the time. Well, not anymore! You can add tons of different fruits, veggies, and herbs to make water taste better. Fill up a pitcher, toss in some combination from below, and let it sit in the fridge for a few hours (the longer you let it steep, the more flavor you’ll get, but you can also enjoy it immediately).

Without further ado, 50 awesome flavored water ideas. I hope this gets you thinking outside the box and trying out more water. And please sign the pledge to drink water (bonus: you’ll be entered to win a $250 Amex gift card!).

1. Watermelon
2. Cucumber
3. Lemon
4. Cantaloupe
5. Orange
6. Cherries
7. Lime
8. Grapefruit
9. Basil
10. Mint
11. Grapes
12. Blood orange
13. Rosemary
14. Lavender
15. Strawberries
16. Blackberries
17. Raspberries
18. Pineapple
19. Kiwi
20. Papaya
21. Honeymelton
22. Fresh ginger root
23. Mango

And don’t forget fun combinations of the ingredients above! Get creative and combine them so it never gets dull. The possibilities are endless but here are some of my favorites:

24. Watermelon and mint (pictured above)
25. Cucumber and mint
26. Lemon and mint
27. Cherry and lime
28. Watermelon and cucumber
29. Ginger and lemon
30. Orange and pineapple
31. Lemon and lavender
32. Lime and mint
33. Cucumber and lime
34. Lemon and basil
35. Strawberry and mint
36. Blackberry and ginger
37. Lemon and blueberry
38. Thyme and blackberries
39. Cucumber and rosemary
40. Cantaloupe and watermelon
41. Cucumber, lemon, and mint
42. Lemon and lime
43. Strawberry and basil
44. Cranberry juice and lemon (use a capful of unsweetened cranberry juice)
45. Ginger and lime
46. Pineapple and mango
47. Strawberries and lime
48. Orange, lime, and lemon
49. Lemon and a pinch of cayenne
50. Papaya and mango

...and I could keep going. Seriously, there are so many potential combos!

For the herbs, crush or chop them up to get the best flavor. Similarly, squeeze citrus wedges, slice or cube melons, and crush berries.
First always use 100% fruit juice with no added sugar or SINthetic chemicals. Fresh is best.

Most fruit juice has too much sugar and needs to be diluted at least 50% with good clean water.

You can drink a glass of this diluted juice once every four hours, and Drink water or slightly flavored water in between.

Do not be afraid to mix fruit and vegetable juices.
Scientific names: *Synsepalum dulcificum*, *Synsepalum subcordatum*  
Family: Sapotaceae  
Common name: Miracle Fruit  
Origin: Ghana (Tropical West Africa)

...It is one of the strangest tropical fruits. The most unusual thing about it is the effect it has on one's taste after this miraculous berry has been consumed. The "miracle" is that if lemon or other sour food is eaten after the miracle fruit, the sour tastes sweet, as if sugar has been added. That kind of magical experience is unforgettable! The interest in this plant is so high that anyone who has a plant always finds eager volunteers to test its sweetening properties. A natural chemical in the fruit masks the tongue’s sour taste buds so that lemons taste like lemonade or lemon pie, or lemon candy. What causes the miracle? The fruit has a unique taste changing glycoprotein that inhibits taste buds’ perception of sour taste. The sweet sensation lasts for half an hour to a few hours...

A BIT OF HISTORY

The plant was discovered in West Africa, where the native diet revolved around a few basic foods, mostly of sour taste. Just imagine the delight of the people when someone ate a few red berries and later ate a meal of sour foods, to find everything suddenly sweet! The West African natives use the fruit to sweeten sour palm wine (beer) - *Pito*, and fermented maize bread - *Kenkey*.

This West African wonder was not botanically identified and named until the middle of the 19th century as Synsepalum dulcificum, a member of the Sapotaceae family, relative of the sapodilla (Manilkara zapota).

Bill Whitman was the first to grow the plant successfully in the US. He had a seedling all of 7” tall and a cutting of 4” bearing fruit upon the young twigs.

THE PLANT

This small, evergreen shrub grows very slowly to a height of 4-6 ft in container, and 10-15 ft in natural habitat. Eventual size depends on where the plant is grown; a 10 years old plant might be easily only 4-5 feet tall. It forms an oval to pyramidal shaped bush or small tree.

Inconspicuous brown-and-white 1/2 inch flowers are followed by bright scarlet, 1 inch football-shaped fruit, sweet and pleasant tasting. Most of the fruit is taken up by a single large seed, but the pulp around it can be nibbled off and then for the next hour or so, **anything one eats that is sour has a sweet flavor.** The plant starts fruiting when only 1 ft tall. It produces fruit practically year around. In native habitat, two large crops are available yearly, each after a rainy season. The mature bushes usually have a few fruits hanging around all year. Seed to fruit in 2 to 3 years. Flower to fruit in 30 to 45 days.

One of the many virtues of miracle fruit is its ease of cultivation, although, like with any plant, it would be nice if you learn its likes and dislikes before inviting it into your home or garden.

If planted in alkaline limestone based soils, the plant may die. These plants seem to live for acid, thriving in it, and then converting it! They must have rich, well-drained soils that are acid in pH, with lots of peat moss, and require constant supply of **micronutrients**. On alkaline soils they often are grown in large containers with generous amounts of peat moss for sustained success in fruiting. **It makes an excellent container tree**, which gives it the added benefit of mobility. Since it is so easily containerized, almost
anyone can grow this plant whether they have an outside planting area or not. **Miracle fruit can be a rewarding indoor plant.** It is not a fast growing plant, which is another benefit for those who would like to grow it in their house or greenhouse. It thrives under warm temperatures, and high humidity. A 10 inch plant is happy in a one gallon pot. One that size will flower and fruit at least twice a year, probably more frequently.

_Siraitia grosvenorii_ is a herbaceous perennial vine of the Cucurbitaceae (gourd) family, native to southern China and northern Thailand. The plant is cultivated for its fruit, whose extract is nearly 300
times sweeter than sugar and has been used in China as a natural low-calorie sweetener for cooling drinks, and in traditional Chinese medicine to treat diabetes and obesity.[2][3]

The plant's fruit is often called in English language publications luo han guo[4] or lo han kuo (from the Chinese luóhàn guǒ, 罗汉果/羅漢果). It may also be called la han qua (from Vietnamese la hán quă), arhat fruit, Buddha fruit, monk fruit, or longevity fruit
Debra Rose I've seen many folks able to stop even curb sugar craving by taking L-glutamine amino. While it provides awesome brain support the side effect for lack of a better term is within Usually 5-10 days can aid in eliminating sugar and carb cravings. Not a hallelujah the light went off a moment but wow I usually eat ice cream at 9 pm and I have not even thought about it for two days.... Just a little tool to help. Along with keeping in mind sugar is a food supply for many disease, bacteria and fungus to grow and thrive abnormalities other on. I love the ask and it will be answered, thank you professor, To be able to hear from you and you've so given Name us a forum to share with one another.
UCSF Scientists Declare WAR on Sugar in Food

Erin Allday, Chronicle Staff Writer

02/01/12

Like alcohol and tobacco, sugar is a toxic, addictive substance that should be highly regulated with taxes, laws on where and to whom it can be advertised, and even age-restricted sales, says a team of UCSF scientists. (University of California San Francisco)

In a paper published in Nature on Wednesday, they argue that increased global consumption of sugar is primarily responsible for a whole range of chronic diseases that are reaching epidemic levels around the world. The health care expense of sugar caused diseases is massive.

Sugar is so heavily entrenched in the food culture in the United States and other countries that getting people to kick the habit will require much more than simple education and awareness...
The Sweet Tooth is a symptom of Disease, it means you have a gall bladder concern, or blood sugar disease, Cancer, or some other disease. (the only way to get rid of it is thru awareness + health)

Dr. Desire' Can get Rid of My sweet tooth
I had a terrible sweet tooth as a child. One day a friend made a salad with some black pepper, spice, and sunflower oil. I laughed. He said do not laugh, but Close your eyes and try it with your Whole Tongue. I did and it was amazing. I learned to use my Whole Tongue to Get all the Flavors. It opened up my World, Improved my Health and Enhanced my Intellect.
Fenugreek can control the blood sugar fluctuations associated with food cravings.

In March 2010, the medical journal Nature Neuroscience published the results of a study by Dr. Paul J. Kenny, which concluded that high-calorie foods can be as addictive as cocaine, tobacco and other drugs. If you have a "sweet tooth," you may find it nearly impossible to resist sugar cravings. Fortunately, several medicinal herbs can help to address sugar cravings with few or no side effects. These natural products help to curb the addictive response associated with sweet foods. Consult a health care provider or dietitian if you continue to struggle with sugar cravings or weight loss.

Gymnema
In Ayurveda, a traditional system of medicine originating in India, gymnema has been used for centuries as a treatment for obesity, sugar cravings and diabetes. A study published in 1992 in the medical journal Critical Reviews in Food Science and Nutrition confirmed that compounds in gymnema temporarily fill the mouth with a sweet flavor. For roughly two hours after chewing gymnema, people experience a decreased response to sugar; fruit juice tastes like water. Gymnema helps to make sweet foods less satisfying, thereby curbing the body's tendency to crave them.

Stevia
Also known as sweet leaf, stevia is hundreds of times more sweet than sugar but contains no calories. In a review of clinical evidence, Dr. Daniel Mowrey, Director of the Mountainwest Institute of Herbal Sciences in Salt Lake City, discusses the many benefits of stevia as a sugar substitute and a treatment for sugar cravings. Unlike sugar and most other sweeteners, stevia actually increases insulin production and slightly reduces blood sugar. Consider using stevia powder as a sweetener in drinks and desserts.

Ginseng
American and Asian ginseng both help the body to cope with stress without fluctuations in appetite, mood or energy levels. The National Institutes of Health grants ginseng a "B" rating--meaning there is "good scientific evidence"--as
a treatment for high blood sugar levels. People who crave sugar during times of stress may benefit from regular ginseng supplementation; the herb can curb emotional overeating and reduce the risk of unhealthy blood sugar fluctuations.

Fenugreek
The mildly sweet herb fenugreek has an aroma similar to maple syrup. Ayurvedic experts recommend chewing fenugreek seeds or leaves to satisfy a sweet tooth. The National Center for Complementary and Alternative Medicine notes that fenugreek can help to prevent blood sugar spikes.

Beat Your Sugar Cravings with these 9 Herbal Tips

*Defeat the Sweet Tooth Monster with these 9 practical tips.*

By Rachel Albert-Matesz
January/February 2005

You’ve decided to adopt a super-nutritious, whole-foods diet. You’ve cleaned out your cupboards. You’ve revamped your refrigerator and pantry, and donated all the refined, processed, artificial and sugary products to a food bank.

You’ve stocked up on fresh, frozen and dried fruits and vegetables, refreshed your herb and spice racks, replaced refined grains with whole grains and have swapped commercial animal products for organic and grass-fed versions. You’re primed for success.
But wait — you’re missing a critical ingredient! To create your own success story, you need sound strategies for dealing with the demon that destroys most diets — the sinister Sweet Tooth Monster! To vanquish the monster and its dark desires, you need to understand what makes your body call out for sugary comfort foods and what you can do differently in the new year.

1. **Problem: Irregular or missed meals.**

Skipping meals or eating on an unpredictable schedule catapults your body into a state of starvation, depriving your brain and body of fuel. This sets you up to crave starchy or sugary foods for energy.

**Solution:** Eat at regular intervals throughout the day.

Plan to eat a nourishing mini-meal every four to five hours until 7 or 8 p.m. Most people find this stabilizes their energy and prevents impulse eating and bingeing. Eating before you run out of energy can prevent sugar cravings.

2. **Problem: Lack of sufficient dietary carbohydrates.**

Low-carbohydrate diets often create cravings for starchy foods and sweets. The reason: the brain prefers running on glucose, supplied by carbohydrates. When you don’t consume enough carbohydrates to fuel your body, you get hungry, which many people experience as a craving for sweet food.

**Solution:** Build meals and snacks around one or more carbohydrate-rich whole foods. Examples include baked or roasted (not fried or instant) potatoes, sweet potatoes, dense root vegetables — carrots or parsnips — fresh fruit or whole grains, such as brown or wild rice, millet, quinoa, buckwheat, mochi, or 100 percent sprouted or sourdough whole-grain bread. Add colorful fibrous vegetables, particularly greens (steamed or sautéed leafy greens, a tossed green salad or coleslaw) at least twice a day, a dash of healthy fat or oil (nuts or seeds; olive, coconut or flax oil; butter; or avocado) and a small portion of protein to each meal.

3. **Problem: Lack of sufficient protein and fat.**

If your diet is carbohydrate-heavy, particularly if you rely on refined carbohydrates, you may experience cravings for sweets. Your body requires a balance of nutrients. Protein and fat slow the release of carbohydrates into your bloodstream, stabilizing your energy. Protein-rich foods also pack important nutrients, and healthy fats and oils improve nutrient absorption, boost immunity and increase satiety at meals.

**Solution:** Eat mixed meals.

Meals containing a mix of complex carbohydrates, protein and fat work best to stabilize energy and avert sugar cravings. Here’s why: Carbohydrates digest quickly, providing fuel immediately after the meal. As the supply of carbohydrate drops off, protein becomes available. When that drops off, fat provides the long-term energy. Having a modest amount of protein and some friendly fat at each meal retards the return of hunger and may stave off sweets cravings.

4. **Problem: Excessive salt intake.**

Restaurants, fast-food eateries and processed food companies liberally season with salt to stimulate your palate, pique your interest in processed foods and motivate you to eat more. Chips, crackers, cheese, cured meats, commercial dips, condiments and canned soups can make your salt intake and desire for sweets soar. Many commercial cookies, cakes, pies, pastries, frozen desserts and candies also host a hefty dose of salt.

**Solution:** Slash your salt intake in half.

Halving your salt intake may help normalize your appetite, making it easier to tell when you’re hungry and when you’ve had enough of any particular food. Read labels, even in health-food stores, and make lower-sodium selections. Add half as much salt to recipes, then try using half as much salt again the next time you prepare the recipe. Replace high-sodium supermarket broth with lower-sodium broth from a health-food store; better yet, make salt-free chicken and vegetable stocks and broths at home.
At the table, replace the salt shaker with lemon pepper or sea vegetable sprinkles, such as dulse or nori, or keep the sprinkles, sold with and without spices, in shaker bottles. Also try gomashio (sesame salt), an Asian condiment made from toasted sesame seeds ground with unrefined sea salt in a 16:1 or 24:1 ratio. Look for these in natural food stores or consult a macrobiotic cookbook for recipes.

5. Problem: Eating refined carbohydrates.

Refined foods don’t satisfy your body because they lack the nutrients and filling fiber found in whole foods. It’s easy to overconsume cookies and confections, but who binges on bananas, baked sweet potatoes, roasted onions or slow-cooked oatmeal?

Solution: Replace highly refined foods with nourishing whole foods.

Incorporate at least one sweet vegetable (such as long-cooked, caramelized onions, carrots, parsnips, beets, sweet potatoes or winter squash), or cooked or dried fruit into each meal and snack. Satisfy your sweet tooth at mealtime and you won’t have to hunt for dessert after or between meals.


Sugar stimulates your appetite. The more you eat it, the more you want. Think of your cravings as stray cats. Feed them and they keep coming back. Stop feeding them and eventually those stray desires will disappear!

Solution: Find healthy alternatives to satisfy your sweet tooth.

For the calories in two Oreo™ cookies, you could eat 1 cup of grapes, 1 1/2 cups of melon, 2 cups of strawberries or 1 small apple. Pack a homemade whole-fruit smoothie for a snack. For dessert, prepare ginger- and fruit juice-poached pears or a cooked compote of fresh and dried fruit infused with pie spice. Instead of ice cream, puree frozen fruit with a dash of fruit juice concentrate. Or, blend sliced, frozen, slightly thawed bananas with diluted peanut, almond or cashew butter in a food processor, adding 1 tablespoon nut butter and 1 tablespoon water per banana, plus 1/4 teaspoon of pure vanilla extract. Replace sugary pumpkin pie with naturally sweet baked winter squash or sweet potato; sprinkle with spices and drizzle with flax oil or a dab of butter or nut butter at the table. When making puddings, pies or custards, replace granulated sugar with date sugar made from pure, dried powdered dates, sold in health-food stores.

7. Problem: Chronic under-eating.

Over-controlled under-eating usually leads to out-of-control overeating. Your body needs energy. If you don’t consume enough food throughout the day or week, your hunger will eventually win out.

Solution: Smaller, more frequent meals.

Plan and consume smaller, more frequent meals and snacks throughout the day to stabilize your physical and mental energy (see 1, 2 and 3 above). Choose bulky, high-nutrient, low calorie-density foods — vegetables, whole fruits, whole grains and lean meat — which allow you to eat a large volume of food without overconsuming calories.

8. Problem: Trying to soothe emotional pain with sweets.

No amount of dessert will satisfy your emotional needs or take away your troubles. Reaching for cookies, pastries, ice cream and other high-sugar foods when you feel fearful, angry, lonely, bored, depressed or stressed usually will give you more grief: bodily aches, pains, indigestion, excess body fat and health problems that can make you feel even worse.

Solution: Find healthy ways to satisfy your needs.
Explore non-food ways to release pent-up energy and create balance in your life. Unwind with a yoga audio- or videotape, a walk, a nap, a sauna or a relaxation tape. Treat yourself to an herbal bath, a therapeutic massage or a weekly session with a life coach. Oust anger by running, riding your bicycle, taking a martial arts or other vigorous exercise class. Dance the blues away. Take up tai chi, chi gong, collage making, painting, journaling, drawing or meditating.


Adrenal exhaustion can contribute to cravings for stimulants, such as salt, sugar, alcohol, coffee or drugs. Does the food or drink you crave contain caffeine? Does it drug you, numb you, take you away from the truth or keep you going when you’d otherwise collapse from exhaustion?

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PROOF SUGAR IS BAD, VERY BAD, REALLY LISTEN IT IS EXTREMELY BAD AND A MAJOR CAUSE AND AGGRAVATOR OF ALL DISEASE

http://youtu.be/Ah88gjejCTU  short story of sugar

http://indavideo.hu/video/Bad_Bacteria_Take_over_the_Brain

http://www.downloads.imune.net/medicalbooks/Bad%20Bowel%20Bacteria%20can%20take%20control%20of%20your%20Brain.pdf


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Desiré is the Professor Emeritus of IMUNE. IMUNE is an accredited and legally registered medical university in Europe.

Since 1995 IMUNE has been offering medical education in a variety of subjects to defend and perpetuate Natural Medicine. There are many small minded people being driven by the Synthetic chemical companies to destroy Natural Medicine as a viable choice in Medicine. IMUNE has offices in Switzerland, Mexico, Dubai, Budapest, England, and the British Virgin Islands. The small petty minded picayune minions of the chemical companies constantly attack with their anal retentive biased short sided views. We must fight for freedom of choice and especially freedom of choice on medicine.

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