



## A Teaspoon Guide to Fruits and Berries

Not all fruit is equal. Fruits usually contain a mixture of glucose (dextrose), sucrose (sugar) and fructose. The amount of each sugar in the fruit depends on what kind of fruit it is. A grape contains a lot of fructose and glucose but not much sucrose, whereas an apple contains some of all three.

This guide is a little different to the guides for processed food. Here I show the differences in total fructose content for different types of fruit and berries. Since fructose is the poison that I am concerned about and good data exists on exactly how much is in each fruit, I've used that data rather than relying on an approximation based on what appears on a food label.

Different species of fruits contain different amounts of fructose (for example some apples are sweeter than others). So the information presented below is necessarily an average.

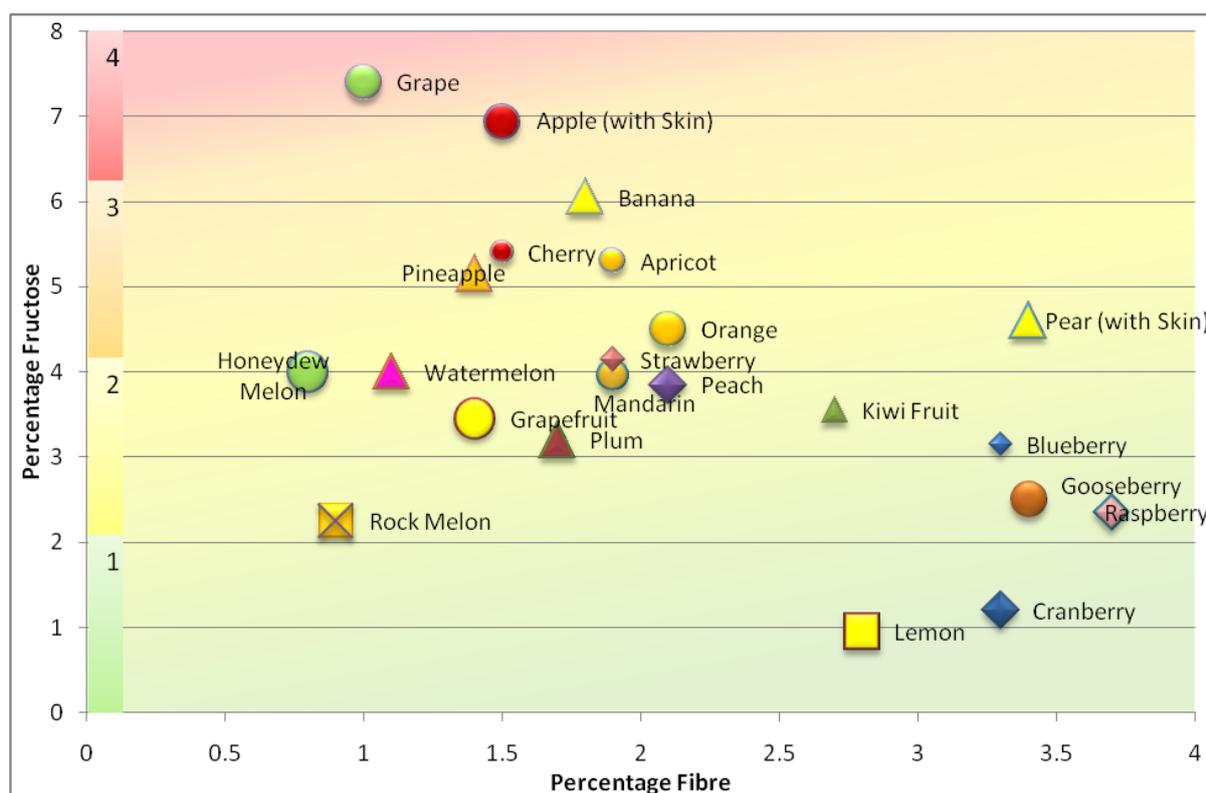
Some fruits come up looking better on this sort of comparison if you include their skin in the calculations (for example, a banana skin has no fructose but significantly increases the weight of the sample, thereby reducing the total percentage of fructose). So I have assumed the fruit is served without its skin unless I say otherwise. I've left the skin on the apple and the pear because that is how they are generally eaten.

Unlike the other guides, I have not done a Best 10. The reason for this is that the fibre in fruit to a certain extent acts to balance the ill effects of the fructose. Since the fibre varies as much as the fructose does, it's difficult to be prescriptive about what is a good fruit and what is a bad fruit (except at the extremes).

The following graph plots each fruit's fibre against its fructose. The further towards the top left corner of the graph (high fructose, low fibre) a fruit lies, the less desirable it is. Conversely if it is in the bottom right corner (low fructose, high fibre) it's a good choice.

The best way to use this graph is to notice the relative positions of each fruit rather than being overly precise about the exact values. This is because they will vary from species to species (within a type of fruit) and even depending on how ripe the fruit is when it is eaten.

The fructose values in the charts have been calculated by adding half the sucrose value to the whole fructose value using standard databases of fruit sugar content. That way the fructose half of the sucrose is also accurately included in the calculation.



An small Banana (with skin) or a large banana (without skin) weighs 100 grams. A medium Apple (with skin) is also around the 100g mark, so I've chosen 100g as the standardised serve for this graph.

The coloured bars on the left side show how many teaspoons of table sugar would be required to deliver that much fructose in a 100g serve of the fruit. So at a glance you can see that 100g of Watermelon will serve up the equivalent of two teaspoons of sugar and a Banana sends about three teaspoons your way.

The fibre matters. So even though a Pear has the same amount of fructose as an Orange, it is a better choice because it has almost twice the fibre.

Reading the chart from bottom left to top right, the Berries overwhelming win the day, with Cranberries, Raspberries, Gooseberries and Blueberries all scoring well. The best fruit is undoubtedly the lemon (surprise, surprise), but for those who prefer something a little more edible to snack on, Kiwi Fruits and Pears are good choices.

At the other end of the scale, Grapes are clearly to be avoided and caution needs to be exercised around Apples, Bananas, Cherries, Pineapples and Apricots. You can probably now tell why apple and grape puree is the filler of choice for the folks who make fruit based snacks.

Given a choice between a slice of Watermelon and an Orange, go for the Orange. Or even better, choose a Peach, a Strawberry or a Mandarin.