

What about Juicing?

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As a medical doctor, who lectures on lifestyle medicine concerns, I am frequently approached with questions about the health benefits of juicing and/or the drinking of smoothies.

It is important to note that your body handles liquid foods differently than it handles solid foods.

More happens in the mouth than many appreciate. The immune tissue in the mouth and throat, like the tonsils, tests substances coming into the body to let the body know what is being eaten as food.^{1,2,3,4,5} Allergy, inflammation and autoimmune diseases are more likely to flair up when food is not chewed long and well, when the body has not had sufficient time or impetus to identify the incoming antigens.^{6,7} One technique of alternative allergists is to take a food to which someone is allergic, make a liquid tincture out of it and then have the person hold it under their tongue for 15 minutes prior to eating, thus presenting it to the testing cells of the mouth (dendritic cells), which in turn lower the sensitivity of the body to that substance. Chewing your food long, thoroughly, and well are part of avoiding or preventing food sensitivity diseases.

Most people making liquid meals are not careful to follow good food combining principles. They intake a large variety of food at each meal in their smoothies or juices as though they had to balance their entire life's nutritional requirements at one sitting. This confuses the body. Each type of food takes a different digestive approach. You may realize that your body reacts very differently to a lemon than it does to a banana. Excessive variety, as encountered in a complex meal comprised of multiple diverse foods or in complex smoothies, can provoke allergy, inflammation and autoimmunity.⁸

Super blenders are capable of making a drink of almost any solid food. When solids are whizzed up with liquid in a blender they are atomized into nano-particles. These nano-particles then tend to absorb into the bloodstream unchecked by the usual filtering mechanisms provided by

the wall of the intestines. This is like a dangerous condition referred to as leaky gut syndrome.⁹ This has been the drawback to homogenization of milk.^{10, 11, 12} When these nano-particles appear unfiltered in the blood stream the body develops sensitivities and unhealthy reactions.

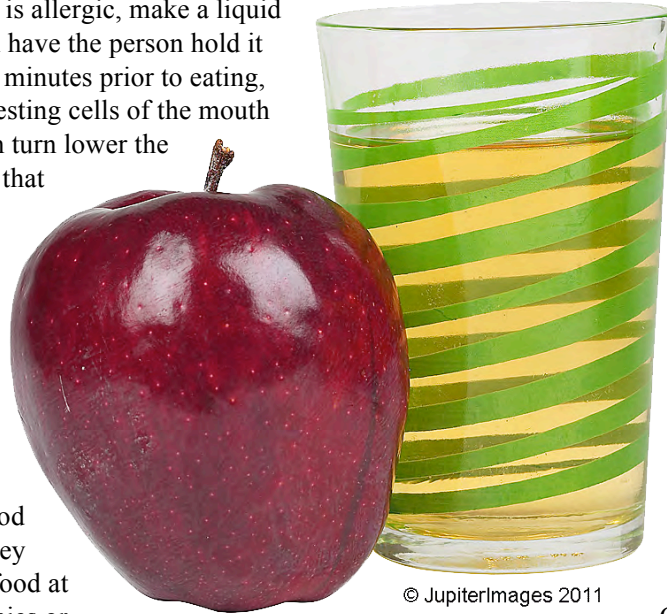
One rationale often sighted for the use of liquid food is that nutrients are absorbed more quickly and go straight to the cells. One example might be sugar. The removal of fiber from food or physically disrupting it by blending can result in faster ingestion and absorption, but results in decreased satisfaction and disturbed glucose control. Drinking your meals often results in the blood sugar rising faster and higher than the body can control, resulting in excessively high insulin production and low blood sugars (hypoglycemia). Because liquids have less fiber or

disrupted fiber, people drinking their meals tend to get hungry again before next meal.¹³ These effects favor over nutrition and, if often repeated, could lead to diabetes^{16, 14} For the diabetic this spells high blood sugar or hyperglycemia.¹⁵

Hearty chewing is part of appetite control. Liquid food is counter productive in this regard. Juices are significantly less satisfying than purées, sauces or smoothies, and purées, sauces or smoothies than whole fruit.^{16, 17, 18} People drinking more liquid food tend to gain more weight.^{19, 20} The faster food is eaten the more calories are typically eaten.

Choosing foods that require more chewing can help reduce the number of calories you eat and help with weight management. Thorough chewing increases food satisfaction and decreases appetite.²¹ The more you chew, the less food it takes to satisfy your appetite.²² Appetite is reduced by nerve feedback from the teeth to the brain when you chew something hard.²³ Liquid nutrition does not engage the teeth as solid foods would.

Liquids consumed with a solid meal do not decrease the amount of food eaten, they just tend to add to the total number of calories eaten.²⁴ If you drink with your meal you will tend to eat the same amount of food, plus the liquid, this will just add to your weight gain.



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When the intestine does not sense the presence of substantial fiber in the food the appetite is not suppressed and over nutrition can result.^{25,26} People who eat more fiber will tend to eat fewer calories and be less apt to become obese and get diabetes.^{27,28} This effect is not limited to the meal currently being eaten, low natural fiber content in food makes it so the person will eat a greater amount of food at the next meal too.²⁹

Most any food or drink that raises your insulin to high levels also raises your cholesterol, as has been demonstrated with some forms of liquid nutrition.³⁰

Digestion begins in your mouth. You need saliva with amylase and other enzymes to digest your food properly and for you to get all the nutrients you need from it. Solid foods in your mouth that require extensive chewing stimulate the saliva glands to produce a greater volume and better quality of saliva to begin digestion.^{31,32} Saliva is rich in enzymes, cofactors and water necessary to process your food. How hard you chew determines how much saliva will be produced and how loaded it will be in enzymes. Dry foods stimulate the glands to produce even more saliva higher in amylase than liquid foods.³³ If you are quickly drinking down smoothies or juices, enzymes will be missing from your digestion, digestion will be incomplete, nutrients from the valuable food you are eating will be unavailable to you and you could become deficient in some necessary nutrient.



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“But I don’t have enough time to eat, I’m in a hurry!” Stress decreases saliva production.³⁴ If you do not have enough time to eat, better to skip and just drink water than to slurp down a smoothie. Stressed living is the source of many modern ailments. Failing to plan adequate time for meals and substituting with liquid nutrition are not healthy.

For children, eating foods that require more chewing builds the jaw, spreads the teeth and makes it more likely that they will not need braces from an orthodontist to straighten out their bite.^{35,36}

Juicing takes juice away from the whole fruit or vegetable. The processing results in a reduction in vitamins and minerals, because the nutrient-rich skin and fiber is left behind or disrupted as in blending.

In the stomach, a liquid meal just makes for more work; the excess fluid must be adsorbed before serious digestion

can begin.^{37,38} Having not spent much time in the mouth, the fluid is in danger of being warmer or colder than what the stomach likes, thus hampering or delaying digestion.³⁹

Many people suffer with reflux disease. For the esophagus, a liquid taken into the stomach just tends to put it at greater risk for reflux and the associated heart burn.^{40,41} Solid food stays down much better.

Fiber is the bulk in food that gives it body or fullness. When a meal, complete with unprocessed natural fiber enters the intestines, it provides bulk, which stretches the intestinal walls. When the walls or the intestines sense stretching, they send a signal to the stomach to cut back on acid and digestion. Juices and smoothies with disrupted fiber do not provide this stimulus for acid reduction; the stomach continues to make too much acid and heart burn, reflux and indigestion can be the result.²¹

When predigested liquid meals such as juices are substituted instead of whole foods the intestines atrophy.⁴² Intestines that are atrophied are more prone to disease and poor adsorption of nutrients.

Good dietary fiber is important for the health of the intestines, it reduces inflammation and as it breaks down it actually feeds healthy intestinal flora.⁴³

Where does all this liquid food end up that goes rushing into the blood stream? The filters are the kidneys and they really suffer, not to mention, until the kidneys do clear the murk out of the blood you may experience some brain fog. Liquid food is a major hazard to kidney failure.

I am not saying to never take a sip of juice. Pointing out the disadvantages of some lifestyle practice is not a complete condemnation of it entirely. Situations where a little liquid food could be lifesaving would include someone with dangerously low blood sugar, or someone who has extreme debilitating fatigue.

“Taken in a liquid state, your food would not give healthful vigor or tone to the system. But when you change this habit, and eat more solids and less liquids, your stomach will feel disturbed. Notwithstanding this, you should not yield the point; you should educate your stomach to bear a more solid diet.”⁴⁴

Habits are difficult to change, and some of these practices we have embraced unwittingly. But God loves us and is willing to supply the power for positive change. Aren’t you glad we serve a God like that?

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