

LearnLowCarb.com Newsletter

in affiliation with TrulyLowCarb.com and CookingTLC.net

Because everyone could use a little TLC



YOGURT TLC

As originally published in the Newsletter in 2002. An edited version appears in Cooking TLC: Volume II.

"Yogurt? you say.... What's this about yogurt? I thought we couldn't eat yogurt anymore!"

So began my quest, a year or more ago.... some people on an internet message board where I participated were talking about a "yogurt exception". Eventually I found myself reading "GO-Diet" by Jack Goldberg, Ph.D. and Karen O'Mara, D.O., where I found credible, scientific testimony detailing the discrepancy between the carbs listed on the label for plain yogurt and its actual carb count... Here is some of what the authors have to say about fermented milk products:

"There has been a lot of press in the recent years about yeast overgrowth and its effects on your health and well being. There is some reason to believe that high carbohydrate diets and the overuse of some drugs, like antibiotics, may promote abnormal yeast overgrowth in and on the body. One natural way to combat this problem is to use an ancient remedy that is natural and well tolerated by anyone. This remedy is to restore healthy bacteria to your body in the form of cultured milk products such as kefir, yogurt, and buttermilk."

"Recent research has also shown that among its many good qualities, these bacteria also stimulate the body to produce important immune response chemicals called "cytokines". These molecules include interferons and tumor necrosis factor and therefore might improve our resistance to disease. They also form a great deal of bulk for well-formed, non-constipating stools. Even lactose-intolerant individuals can tolerate kefir, yogurt, and buttermilk. That is because the lactose in the milk used to make these products has been digested by the "good" lactobacillus. For example, the actual lactose left in the kefir made by a national manufacturer is 1% or less. IN THIS CASE ONLY,,,, AND WITH THESE FOODS ONLY, don't count the carbohydrate on the package labels".

The next paragraphs go on to explain why they are so sure that the actual carb content of (plain, unsweetened) yogurt, buttermilk, and kefir is just 4 carbs per cup, which is also the amount that they recommend that you try to consume daily. (They actually performed their own tests under laboratory conditions to confirm these effective carb counts.)

Armed with this persuasive data, I set out in search of some plain yogurt with which to enliven my breakfasts, but found only non-fat unsweetened yogurt in any of my local stores. I have never liked non-fat yogurt and adding DaVinci syrup to this stuff only resulted in a seriously runny cup of still-too-sour goop. Ack! So much for that bright idea.



Then a few weeks later at the local thrift store, I came across this treasure - for just FOUR BUCKS, whoo hooo!!

I had never made yogurt before, but the instructions were there, and they looked simple enough. This, I knew, was the only way I would ever obtain the kind of yogurt that I might want to actually eat, so I snatched it up - and as it turns out, it was the best four dollars I've spent in a long, long time...

Since that time I have "upgraded" my yogurt maker (I am the "Gadget Queen", remember, after all! 😊 and I had this upcoming article as an excuse too) but I also practiced and experimented until I could make yogurt without using any kind of "maker" at all, and I'm here to tell you "guess what - it's really not all that hard!"

Yogurt is an excellent source of calcium, riboflavin (B2) and protein. Thanks to its naturally acidic nature, it can help baked goods to rise - used in place of some or all of the specified liquid in cakes, muffins, pancakes, etc., you can actually reduce the amount of baking powder you need. If you find some of the low carb homemade ice cream recipes a tad on the heavy side (sometimes they leave an actual coating on the roof of your mouth 🤢), try using yogurt for half the cream called for, the next time. Homemade yogurt "cheese" (strain it in a fine sieve/coffee filter placed over a catch bowl for a day to remove the whey, and you'll be left with yogurt cheese) makes an excellent substitution for cream cheese in recipes. Yogurt is a delicious addition to protein shakes (more like smoothies then) and egg dishes, it's great by the spoonful once you add some Splenda, and some fruit and/or extracts as flavoring, or you can add sugar free syrups (tends to thin it down, adding some protein powder, pectin, or gelatin can help to mitigate that). I like to add small amounts of Uncle Sam™ or Kashi Go Lean™ whole grain cereals too. Yogurt is also a great medium for ground flax seeds, nuts, coconut, etc.... get creative! Freeze doctored up yogurt in Popsicle molds for a cool and tasty treat on a hot afternoon.... make luscious cucumber dips, creamy dressings... you get the picture!

I found lots of different methods for making yogurt when I started researching this article, and quite a bit of conflicting information, but one thing that everyone seemed to agree on was this: the first step is to heat whatever milk mixture you decide to use, to the boiling point. Heating the milk to boiling kills any undesirable bacteria that might be present, which is always a good thing, even in this age of ultra pasteurized store-bought products, because hey, you just never know who's going to screw up on any given day - and safe always beats sorry. Scalding temperatures also change the properties of the milk proteins in such a way that the yogurt attains a denser, firmer texture than it could otherwise. This heating process also helps the whey to not separate easily from the finished product, giving your yogurt a longer shelf life in your refrigerator. I have kept both yogurt and yogurt cheese in my refrigerator for weeks without any apparent sign of spoilage (but it only lasted that long because of this experiment and this article - I eventually got paranoid and threw it out because it looked totally fine still, but I KNEW just how old it really was and knew I didn't want anyone to accidentally eat it at that point....)

After heating the milk to boiling, it should be allowed to cool until it reaches the optimum incubation temperature of 110 F (43.3 C), at which time you add yogurt "starter" consisting of live bacteria, usually *Streptococcus thermophilus* and *Lactobacillus bulgaricus*. Yogurt starter can be purchased as dry granules (check health food stores) or you can just use plain yogurt from the grocery store, any kind that isn't sweetened or flavored and also says "contains live cultures" (plain Yoplait™ or Dannon™ both work well.) You can use your own yogurt from a preceding batch as starter, once you get this process going, but bacteria do become less active with age, so the older the yogurt is that you use for starter, the more of it you will need to use. It's never a problem to add more, since you can't add too much, so I am always generous with the amount when using homemade yogurt as my starter.

You'll need a good thermometer to make good yogurt, since adding the starter at the proper temperature is crucial to your success. Ignore any instructions you find that are at all vague in this area - this is the step that will "make or break" your yogurt!! Temperatures above 115 degrees F (46.1 C) cause separation and curdling and can destroy the active yogurt culture, while temperatures below 100 degrees F (37.8 C) stop their growth. The longer yogurt is allowed to incubate, the tangier - but also thicker - it will become. It takes at least 4 hours for a good "set", but I like mine best after ten to fourteen hours of incubation.

You can incubate yogurt in a commercial yogurt maker like the one shown above, or this Donvier model that I use now, or any of the other many types out there. Using one of these machines makes the whole process completely foolproof and worry-free. Anyone can make yogurt in one of these machines, really! Now, if you have any issues with an impaired immune system or you could be pregnant, then you won't want to take any chances, and you should only use a controlled system. But... if you don't have any issues like that, you can employ a number of different methods for the actual



incubation, ranging from an old heating pad lined with towels to a styrofoam cooler filled with packing peanuts to an electric fry-pan filled with warm water to a sunny windowsill to an oven with a lit pilot light to a good ole' fashioned Stanley thermos, which is what I recommend.

Don't use a plastic or otherwise cheap thermos - you really need a good metal or glass thermos that holds heat for a long time. Trust me on this, I know - because I tried this with two different thermoses that I already owned, and it didn't work with either of them, even with preheating. 😞 I eventually pitched both of those (what a waste of cupboard space!), and bought a metal, 1 qt. Stanley thermos from the camping section at Wal-Mart (\$22) and that particular thermos works great for this process.

Fill a wide-mouth thermos with BOILING water, screw on the lid, and allow it to preheat while your scalded milk mixture is cooling down to 110 F. Once the scalded milk has cooled to 110 F, stir in the starter. Dump out the water from the thermos, put the milk/starter mix in the thermos, screw on the lid, and leave it alone for 4 hours and 30 minutes. Don't open or check or even MOVE it meanwhile, because you don't want to reduce the temperature too much, and too much jostling can actually disturb the bacterial action and affect the final product. After 4-1/2 hours, open it up and you should have yogurt. Take it out, put it in something else (single serving sized plastic dishes are great for this) stick it in the fridge, then once it's chilled, enjoy it! If you find it's not thick enough for you with this short of an incubation period, which was the

case with me, you can dissolve 1 tsp. plain gelatin or 1 Tb. of fruit pectin in the milk while scalding it. (The thermos will only hold the yogurt at an incubation temperature for a few hours, after which the thickening action is also halted no matter how long you leave it out, so this is the only way I could think of to make yogurt as thick with the thermos method as with my machine. You can also use this method to make yogurt which is incubated in a machine thicker than it would be otherwise, as well.)

To use any of the incubators, just do this: (if you find one used and cheap, without directions, don't hesitate to BUY IT, because they all work the same way.)

1] scald the milk mixture you've decide to use (the quantity will depend on the size of your machine, and the recipe is up to you - more on that in a moment)

2] cool it down to precisely 110 Fahrenheit (43.3 Celsius)

3] skim off or stir in the skin that will have formed while it cooled

4] add starter medium of your choice

5] place it in the machine in containers, and close covers (hint - if needed, you can use baby food, canning or condiment jars in place of the jars that come standard with most incubators, whatever fits.)

6] turn on the machine and "let it rip" for the desired number of hours (I like ten. I start a batch, go to bed, then when I get up the next day, it's ready. Easy! Anywhere from 3 to 14 hrs. is considered 'normal' - you're going to have to experiment and see what you prefer.)

Now we just need to discuss the milk mixture...

Almost all the directions you find for yogurt call for adding non-fat dry milk to regular milk of any type - skim, reduced fat, or whole. This is to increase the percentage of the milk solids. The process of fermenting milk into yogurt will work with plain old milk, of course, it just works BETTER when the milk solid percentage is greater. Well, there is more than one way to skin a cat, and there are more ways to accomplish that than to add carby non-fat dry milk to already carby milk.....

My personal preference, when all is said and done, after lots of experimenting, is to use whole milk plus some heavy cream plus some yogurt or one envelope of commercial freeze-dried starter. I like the dry starter because I can add it to organic milk. I can't find any organic yogurt with active cultures in my area, and I do think that dairy products are one area where organic is unquestionably preferable! From each packet of starter I can make at least six batches of yogurt, by starting subsequent batches with my own yogurt, so one box lasts a long time. I like the whole milk because I can't find organic cream in my area either, but I can get organic whole milk and besides, the good doctor's tests indicate that the carbs from the milk are not a problem in the end result anyway. When I made yogurt in the Salton with the 5 containers that hold a total of 4 cups, I used 3 cups milk plus 2/3 cup heavy cream plus 1/2 cup yogurt or 1 envelope starter. Basically, you use extra rich milk which you've enriched by whatever method you prefer, plus yogurt as starter, at the rate of about 1/2 cup for each quart of yogurt. When I used the thermos, I could simplify things, I just poured cream in the thermos, estimating the amount by eye, then added milk until it was an inch or so below the lid, (leaving room for the yogurt starter), then poured that mixture into a saucepan for scalding. I do the same basic routine with my new Donvier, but I like this machine better because I can use an entire quart of milk, plus a hefty dollop of cream, plus a half cup of yogurt, and the cups I make it in all hold a perfect size serving and STILL have enough room in them to add cereal, fruit, etc. without dirtying any extra dishes. As resident reluctant dishwasher, I'm all for anything that results in less dishes. They also sell sets of extra cups for the Donvier machine, meaning that I can start a new batch anytime without worrying if every single cup has been accounted for and cleaned, or not...