# Learn About the Benefits of Yogurt and How to Make Yogurt at Home



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Instructor: Dr. Kevin Clark

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# What is Yogurt and How to Make it at Home

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# 1) Background

#### 1.1) Introduction

Yogurt is a very nutritious food with many health benefits. It is unfortunate many people know very little about it and its many benefits. It has been used in many cultures for thousands of years and has been gaining popularity in US during the last 50 years. The goal of this document is to inform and educate anyone who is interested in yogurt and provide them with accurate instruction regarding making yogurt at home.

#### 1.2) History

It is not really clear when yogurt was first discovered. Recent research estimates it was discovered between 9000BC and 6000BC, somewhere is East Asia. It was most likely discovered by accident, as we will later explain what yogurt is and how it is made. There are references to yogurt in many ancient texts including Indian Ayurveda and even possibly Bible (Genesis 18:8). It is also said that Genghis Khan encouraged his army to drink yogurt drink to improve their health, strength and courage. Yogurt also has medicinal properties and has been used by doctors in past centuries. Historical record show a Turkish doctor saved the life of King Francis I, just by feeding him yogurt. The King was suffering from some kind of intestinal sickness. In early 20<sup>th</sup> century a Russian scientist (Elie Metchnikoff) studied the health benefits of yogurt in people of Bulgaria. He was so impressed that he wrote a book about it called Prolongation of Life. This book was influential in popularity of yogurt in the United States. (Rayment, W.J. 2011) (Brothwell, D. R., & Brothwell, P. 1969, P.51)

- Rayment, W.J. (2011). History of Yogurt. Retrieved from http://www.indepthinfo.com/yogurt/history.htm
- Brothwell, D. R., & Brothwell, P. (1969). Food in antiquity: a survey of the diet of early peoples (Vol. 66). JHU
  Press.

# 1.3) Health Warning: Milk Allergy

We will discuss the many benefits of yogurt in detail, but it is necessary to know the health hazard of yogurt to some people, especially young children. About 2.5% of all children below the age of three in the United States are allergic to milk. Most children grow out of this condition as they get older and their immune system becomes more adept to the environment. Only a small percentage of adults have milk allergy. The cause for this life threatening condition is not fully known. Scientists suspect two of the milk proteins (Casein & Whey) to be responsible for this allergic reaction. If people with milk allergy consume milk or milk containing products they could go into what is known as Anaphylactic shock, which can be life threatening. For this reason yogurt should be avoided by anyone who has milk allergy. Milk allergy is related to immune system and is completely different from another condition known as Lactose Intolerance, which is related to digestive system. (Mayo Clinic staff, Milk Allergy Causes) (Food Allergy Research & Education).

- Mayo Clinic Staff, (2014, Aug., 7<sup>th</sup>). Milk Allergy Causes. Retrieved from <a href="http://www.mayoclinic.org/diseases-conditions/milk-allergy/basics/causes/con-20032147">http://www.mayoclinic.org/diseases-conditions/milk-allergy/basics/causes/con-20032147</a>
- Food Allergy Research & Education (2015). Milk Allergy. Retrieved from <a href="https://www.foodallergy.org/allergens/milk-allergy">https://www.foodallergy.org/allergens/milk-allergy</a>

## 2) Problem Definition

#### 2.1) Context:

Most people are not aware of the numerous health benefits of homemade yogurt. The instruction will not only educate learners on the health and economic benefits of homemade yogurt, but also instruct learners on how to successfully prepare and customize a batch of yogurt in their kitchens at home.

Yogurt is such a beneficial food that any instruction on how to make it without covering its health benefits would be very incomplete. Learners will appreciate yogurt more and will become motivated to prepare and eat more yogurt, when they have a good understanding about yogurt. A large portion of the adult population can benefit from making good quality yogurt at home. There will be additional instructions on how to customize homemade yogurt to make it more suitable for those who have certain digestive issues (Dysbiosis & Lactose Intolerance).

## 2.2) Limitations:

The instructions in this document are meant for adults who are interested in making yogurt at home. Because making yogurt involves boiling milk to a high temperature, children or anyone who is not able to safely handle a heat source or hot liquids should not attempt making yogurt at home. Even though the instructions will cover identifying spoiled milk or yogurt, it is highly recommended not to make yogurt if one does not have clean tools for making yogurt. There are no other learner requirements other than having access to the needed equipment, which will be mentioned later.

# 3) Learner Analysis

#### 3.1) Primary Audience:

These adult learners enjoy eating yogurt and are self-motivated by health benefits, taste preferences, and/or financial concerns. Because making yogurt involves boiling milk to a high temperature, children or anyone who is not able to safely use a heat source or handle hot liquids should not participate in this activity.

#### 3.2) Secondary Audience:

Individuals with lactose intolerance (LI) or dysbiosis will also be addressed in various stages of the instruction. Many LI people who are first learning about lactose intolerance may feel as though they may have to miss out on the various milk products offered at the local supermarket. These people may not yet be aware of the need for dairy and how it can be made available to them in homemade yogurt, which contains little to no lactose. In addition to customizing taste and saving on cost, the learner can take control of the amount of lactose in their homemade yogurt. This instruction will give the learner an opportunity to eat yogurt more confidently.

# 4) Components of Objective

#### 4.1) Performance Objective (Behavior):

The performance objective will be visible because we can see the final results. This way it is clear if the learner has learned the desired behavior.

#### 4.1.1) Overall:

Learner will learn some of the benefits of yogurt and be able to produce it at home

#### 4.1.2) Terminal Objective:

- Learn about some of the health benefits of yogurt
- How to successfully produce yogurt at home

# 4.1.3) Enabling Objective:

- Learn the benefits of yogurt
- Learn what equipment and ingredients are needed
- Learn the steps for making yogurt
- Learn how to evaluate success

#### 4.2) Conditions:

In order to prepare yogurt successfully the learner needs the following ingredients and equipments:

#### 4.2.1) Ingredients:

- Half a gallon of milk
- One cup (4 oz.) of plain yogurt with live active culture

#### 4.2.2) Equipment:

- A large pot (at least one gallon) with lid
- One stable heat source
- One food thermometer (range 100 to 200 F)
- One regular spoon
- Something to keep the milk warm after yogurt has been added (heating pad, blanket, oven, etc.)
- A cool place to keep the yogurt cool after it has been prepared (refrigerator, ice box, etc.)

#### 4.2.3) Avoiding Contamination:

Warm milk is the breathing ground for bacteria. It is important for the spoon, thermometer, and the pot lid to be clean before using them.

#### 4.2.4) Time Considerations:

Preparation of milk takes about 1 hour. Preparation of yogurt takes at least 8 hours. It is best to prepare the milk at night and let the yogurt form during the night. It can be refrigerated in the morning and be ready by noon.

#### 4.3) Criterion

#### 4.3.1) Time Needed:

Making yogurt takes time and cannot be rushed. It will take at least one hour to heat the milk to desired temperature and then let it cool down to desired temperature again. It will take a minimum of 8 hours for the bacteria to turn the milk into yogurt. This time may as the ratio between milk and added yogurt changes. Adding more yogurts to warm milk will reduce this time.

#### 4.3.2) Accuracy Needed:

The learner does not have to be exact on measurements, but should not vary much from recommended measures either. A little bit more milk or yogurt will not make much difference, but heating the milk too much will make the milk foam up and boil over and make a big mess. Likewise, allowing the milk to cool too much will not allow the bacteria to grow and yogurt will not be created.

#### 4.3.3) What Quality:

Most yogurt look alike even though their quality, taste and texture may vary widely. This variation depends on many factors like the ration of milk to yogurt, the quality of both milk and yogurt used, temperatures and cooling time.

What the learner should aim for is the thickness of yogurt and lack any signs of contamination.

#### **5.1) Understanding the Benefits:**

Making yogurt at home is not very hard and can be described in less than 10 steps, but understanding the benefits of homemade yogurt is what will motivate people to make yogurt over and over again. There are cost and taste customization benefits, but numerous health benefits of yogurt, especially homemade yogurt, deserve to be explained in detail.

#### **5.1.1) Health Benefits:**

Before explaining the health benefits of yogurt, it is important to learn what yogurt is and why it is good for health.

What is Yogurt? It is unfortunate that most people don't know what yogurt is and what it is made of. In a nutshell, yogurt is made by adding bacteria to warm milk and allowing these bacteria to feed and grow on milk sugar. After a few hours, the result will be lots of bacteria and much less milk sugar. About four different kinds of bacteria are usually found inside yogurt. These bacteria will convert hard to digest milk into a beneficial food packed with protein, minerals and nutrients. All minerals and protein in milk are preserved and are actually concentrated during the process. (Wikipedia: Yogurt)

• Wikipedia: Yogurt (2015, Nov.10). Retrieved from <a href="https://en.wikipedia.org/wiki/Yogurt">https://en.wikipedia.org/wiki/Yogurt</a>

**Aren't Bacteria Harmful?** The general misconception is that all bacteria are bad. This is simply wrong. There are harmful bacteria, but there are many kinds of beneficial bacteria and humans would not be able to survive without the help of these beneficial bacteria. Bacteria play many roles in our body from stimulating our immune system to digesting our food. Our digestive system is where most of our bacteria live and without plenty of the good bacteria, we would have all kinds of digestive issues. (Goldin, B. R., & Gorbach, S. L. 1992, pp. 355-376)

• Goldin, B. R., & Gorbach, S. L. (1992). Probiotics for humans. In *Probiotics* (pp. 355-376). Springer Netherlands.

**Bacteria and Digestion**: On average, an adult person has about 4 pounds of bacteria in his/her intestines. Ideally you want to have much more of the good bacteria in your intestines than the bad bacteria. The good bacteria in your intestine have a very important function to play. They are responsible for breaking down your food into its basic elements so it can be absorbed into your blood stream. Without these good bacteria you could be eating the most nutritious food, but not get any benefit from it. There are also bad bacteria in our intestines because there are all kinds of bacteria in our food and drinks that get down to our intestines. Our intestines are warm, moist and full of food for bacteria to grow. They are ideal breathing ground for any kind of bacteria. Because food is passed through our intestines regularly and removes extra bacteria, the amount of bacteria in our intestines is relatively constant. The important factor becomes the ratio of good over bad bacteria. You want to increase this ratio as much as possible to have a healthy gut. If this ratio drops too much, you will start having symptoms of a condition known as Dysbiosis. (Sanders, M. E. 2000)

• Sanders, M. E. (2000). Considerations for use of probiotic bacteria to modulate human health. *The Journal of nutrition*, 130(2), 384S-390S.

What is Dysbiosis? Simply put is a condition where you have more bad bacteria in your intestines than good bacteria. The main reason most people develop this condition is due to antibiotics use. When a person uses antibiotics, the good bacteria are killed and their space is filled with these bad bacteria. These bacteria are generally called bad bacteria, because they feed on your food and produce a lot of gas and toxins. The toxins produced by bad bacteria gradually erode intestinal wall and allow larger food molecules to get into blood stream. These larger than normal food particles trigger autoimmune responses and food sensitivities. One of the main food sensitivity is related to milk sugar and is called Lactose Intolerance. (Wikipedia: Dysbiosis) (Tamboli, C. P., et al. "Dysbiosis in inflammatory bowel disease." Ch. 1-4) (Leo Galland, M.D.)

- Wikipedia: Dysbiosis (2015, Sept. 2nd). Retrieved from https://en.wikipedia.org/wiki/Dysbiosis
- Tamboli, C. P., Neut, C., Desreumaux, P., & Colombel, J. F. (2004). Dysbiosis in inflammatory bowel disease. *Gut*, *53*(1), 1-4.
- Leo Galland, M.D., F.A.C.N., and Stephen Barrie, N.D. (2015, Oct. 9<sup>th</sup>). Intestinal Dysbiosis and the Causes of Disease. Retrieved from <a href="http://www.ei-resource.org/articles/candida-and-gut-dysbiosis-articles/intestinal-dysbiosis-and-the-causes-of-disease/">http://www.ei-resource.org/articles/candida-and-gut-dysbiosis-articles/intestinal-dysbiosis-and-the-causes-of-disease/</a>

What is Lactose Intolerance (LI)? One of the functions intestinal cells perform is to produce an enzyme called lactase. Lactase enzyme's main function is to digest the sugar molecules in milk (lactose). If this sugar is not digested due to lack of lactase, it will feed the bad bacteria even more and starts a vicious cycle of more toxins, more erosion, and more food allergies. In these people, even though the condition is not life threatening it can be very uncomfortable. Some of the initial symptoms of LI are bloating, cramps, painful gas, diarrhea, and nausea. LI is one of the most common food intolerances. It is estimated around 75% of adult population have some degree of LI. If ignored, it can lead to more serious conditions like Irritable Bowel Syndromes, Malabsorption, and Malnutrition. (Heyman, Melvin B. Lactose Intolerance) (Mayo Clinic) (Michael de Vrese)

- Heyman, M. B. (2006). Lactose intolerance in infants, children, and adolescents. Pediatrics, 118(3), 1279-1286.
- Mayo Clinic staff (2015). Lactose Intolerance. Retrieved from <a href="http://www.mayoclinic.org/diseases-conditions/lactose-intolerance/basics/definition/con-20027906">http://www.mayoclinic.org/diseases-conditions/lactose-intolerance/basics/definition/con-20027906</a>
- Michael de Vrese (1998). Probiotics, Compensation for Lactose Insuffieniency. Retrieved from http://ajcn.nutrition.org/content/73/2/421s.full

**Yogurt and Dysbiosis:** The simple solution to Dysbiosis is to use less antibiotics (against life), and eat more good bacteria or probiotic (good for life). This has been the driving force behind a growing market for probiotic products. A recent study has found yogurt to be more effective remedy for Dysbiosis than usual off the shelf probiotics. As it will be explained later in this document, yogurt produced at home will have more good bacteria than store bought brands and can even be more concentrated and potent. (Lourens-Hattingh, Analie, and Bennie C. Viljoen. P 1-17)

Lourens-Hattingh, A., & Viljoen, B. C. (2001). Yogurt as probiotic carrier food. *International dairy journal*, 11(1), 1-17.

Yogurt and Lactose Intolerance: Almost every LI related study mentions yogurt as a good alternative to milk, but most LI people still have issue with yogurt. This is due to the fact that almost all store brand yogurts have other unhealthy ingredients added to them, and in some cases it makes it intolerable for LI people. Many yogurt manufacturers do not allow the bacteria to completely consume the sugar (Lactose) in milk, because they want to maintain a sweet taste to their product. Fully formed yogurt has a tart taste to it, which is an indication that almost no sugar (Lactose) is left for bacteria to consume. Most store brands add some kind of preservative and added artificial ingredients to preserve shelf life or to make it more palatable. Some brands even add artificial coloring to make the yogurt look whiter than its natural color. Some manufacturers have tried to address this issue by offering Lactose Free yogurt, but the issue with these brands is the cost and availability. Homemade yogurt can easily be customized to make sure it has very little lactose left in it. The large amount of good bacteria will gradually replace the bad bacteria and allow the intestinal walls to heal. This can gradually get rid of Lactose Intolerance and restore balance. (Scrimshaw, N. S., & Murray, E. B. 1988) (Rabin Medical Center (2012, Feb.)

- Scrimshaw, N. S., & Murray, E. B. (1988). The acceptability of milk and milk products in populations with a high prevalence of lactose intolerance. *The American journal of clinical nutrition*, 48(4), 1142-1159.
- Rabin Medical Center (2012, Feb.). The effect of probiotics on Lactose Intolerance. Retrieved from https://clinicaltrials.gov/ct2/show/NCT01593800

Other Benefits of Yogurt: There is a famous saying "good health begins in the gut." Yogurt has been the subject of many studies in the past decades and many have come to favorable conclusion. A quick online search brings up a list of studies from improving your skin tone (by applying yogurt topically), all the way to improving overall health and longevity. One of the latest studies (Aubrey, Allison 2015. Prozac in the Yogurt aisle) is indicating yogurt might have a mind altering, feel-good or calming effect. (Shah, N. P. 2006. Health benefits of yogurt) (Ragovin, Helene (2015, Jan. 29). What is so good about yogurt?)

- Shah, N. P. (2006). Health benefits of yogurt and fermented milks. *Manufacturing yogurt and fermented milks*, 327.
- Aubrey, Allison (2015, Jul. 14th). Prozac in the Yogurt aisle: Can 'Good' Bacteria Chill Us Out? Retrieved from http://www.npr.org/sections/thesalt/2015/07/14/422623067/prozac-in-the-yogurt-aisle-can-good-bacteria-chill-us-out
- Ragovin, Helene (2015, Jan. 29). What is so good about yogurt? Retrieved from <a href="http://now.tufts.edu/articles/whats-so-great-about-yogurt">http://now.tufts.edu/articles/whats-so-great-about-yogurt</a>

# **5.1.2) Economic Benefits**

As indicated earlier, yogurt popularity has increased dramatically in the last 50 years in the US. According to an article in Huffington Post, young people are the fastest consumer of yogurt. There are families, with yogurt loving kids, who are spending over \$100 each month on yogurt along. According

to latest statistics by USDA on average dairy prices, the price of 32oz plain yogurt is \$0.20 more than the price of 128oz of milk. One can make 4 times the amount of better quality yogurt at home for the same price. This economic benefit may be enough for some larger family to start making their own yogurt at home.

- Satran, Joe (2013, Jan. 13). Yogurt Sales Growth Has Been Driven By The Young. Retrieved from <a href="http://www.huffingtonpost.com/2013/01/31/yogurt-sales-growth-study\_n\_2574626.html">http://www.huffingtonpost.com/2013/01/31/yogurt-sales-growth-study\_n\_2574626.html</a>
- USDA staff (2015, Oct.). National Retail Report-Dairy. Retrieved from http://www.ams.usda.gov/mnreports/dybretail.pdf

#### **5.1.3) Taste Customization**

A quick visit to yogurt aisle makes it very clear how popular flavored yogurt is compared to plain yogurt. The popularity of fruit flavored yogurt shows most people prefer to have some kind of taste added to their plain yogurt. One may run into two issues with flavored yogurt. The first is you may prefer a taste, which is not available. Flavors like coffee, chocolate, honey, maple syrup, cinnamon, kiwi, pear, date, walnut, pistachio, and pumpkin are not even available to be purchased. It is noteworthy that most manufacturers are making their yogurt with low fat or no fat milk. They benefit from removing the fat from milk and selling it as butter. Many studies in the last few years are pointing to fat being essential part of the diet. According to a recent article in Forbes magazine, in 2016 we will start seeing high fat yogurt (up to 18%) and disappearance of no-fat yogurt. Many people who have already switched their diet to high fat / low carb want to make their own yogurt and add extra butter to it.

The second issue is related to the type of fruits manufacturers add to their yogurt. They usually use jam or fruit preserves for cost and liability issues. Many health conscious families would like to use fresh fruits in their yogurt. For these two reasons many prefer to make their own yogurt at home so they can customize the taste to their liking. (Adimando, Stacy 2015),

 Adimando, Stacy (2015, Oct. 6<sup>th</sup>), Is This the Beginning of the End For Nonfat Yogurt?. Retrieved from http://www.forbes.com/sites/stacyadimando/2015/10/06/is-this-the-beginning-of-the-end-for-nonfat-yogurt/

#### 5.2) How to Make Yogurt

There are many devices on the market that can make it easier to make yogurt and you can use them if you like. None will completely automate the process for you, but will simplify some of the steps like keeping track of time. It does not really matter if you use these devices or not, because you still have to follow the same general procedure.

Making yogurt is not an exact science. As long as the main idea is followed you will be able to successfully make yogurt. A simple YouTube search for making yogurt at home will return many results. Here are a few examples:

https://www.youtube.com/watch?v=1XEtbYFyYmAhttps://www.youtube.com/watch?v=2CN7938yu1s

https://www.youtube.com/watch?v=PghT9IXoj\_k https://www.youtube.com/watch?v=rm6NArYuK90 https://www.youtube.com/watch?v=f8DgWLfhls8

#### **5.2.1) Overview**

The process of making yogurt is relatively simple, as it will be explained in this section. You will be heating milk in a pot to make sure it is sterilized and clean from any bacteria. You let it cool to a warm temperature and add some yogurt to this warm milk. Keep it warm for a few hours and let the bacteria in the yogurt consume the sugar in milk and multiply. The only ingredients will be milk and a small amount of yogurt. It is recommended to use a simple food thermometer for beginners, but after doing this a few times you can just touch the pot or know how long it takes for the hot milk to reach the desired temperature before adding the yogurt.

Since we are creating a bacteria friendly environment by keeping the milk warm for a few hours, it is very important we use clean equipment and not expose the warm milk to any outside bacteria. Your pot will be sterilized by high heat. You will need a clean spoon, clean thermometer, and clean pot cover. Do not expose these to anything that could cause contamination.

#### **5.2.2) Needed Equipment:**

You will need the following equipment:

- One pot with 1 gallon capacity and a lid to cover it.
- One heat source to boil the milk. Gas or electric burner are the most suitable.
- One clean food thermometer to check milk temperature at different times.
- One clean spoon to mix yogurt with warm milk.
- One cooler like ice box or refrigerator to store the yogurt.

#### **5.2.3) Needed Ingredients:**

- 4 oz. of yogurt with live active culture. It is best if this is fresh yogurt and not close to expiration date.
- Half a gallon of milk. This can be whole milk, 2% milk, low-fat, non-fat, or even goat's milk.

#### **5.2.4) Directions for Making Yogurt:**

- Take the yogurt, which will be used to as starter out of refrigerator and let it warm up to room temperature while you prepare the milk. You will need about 4 oz. of yogurt for each half gallon milk. This yogurt must contain Live Active Culture and for best results expiration date should be at least a week from today.
- Pour half a gallon of milk into the pot. The pot should still have plenty of room. Do not cover the milk at this time.
- Use a heat source like electric oven to gently bring milk temperature up to 180 degrees
   Fahrenheit. Use a food thermometer to monitor the temperature once every 5 minutes. This
   process should last at least 20 to 30 minutes. Heating milk too fast will make it burn and stick
   to the bottom of the pan and will be hard to clean. It will also make the milk foam up quickly
   and spill over, which will make a mess.

- Turn off the heat source once milk has been heated to 180 degrees.
- Let the milk gradually cool down to about 125 degrees +/- 10 degrees. If the milk is too hot, it will kill the bacteria in yogurt and if the milk is too cold the bacteria will not grow at the rate they should.
- Add the yogurt one spoon at a time and gently stir the milk to make the yogurt mix evenly.
- Cover the pot with its lid.
- Place the covered pot in a stable place where it can sit for about 12 hours. The pot should not be moved or shaken until the time is up.
- Wrap the pot in a blanket or heating pad to prevent it from cooling too quickly. This is an
  important step because it gives the bacteria time to feed and multiply.
- Check the pot about 12 hours later by removing the lid and moving the pot a little bit. The milk inside should have transformed to a soft yogurt with some clear liquid (whey) forming on top.
- Place the pot with its lid inside refrigerator for about 4 hours to let the yogurt firm up.
- At this point the yogurt is ready to be served, moved to smaller containers like glass jars, or doing some taste customization.

#### **5.3) Evaluating Your Results:**

After taking the yogurt out of the refrigerator you need to check it to make sure you have produced yogurt successfully. What you will be looking for is a yogurt with the same color as milk, but with a soft paste texture. If you notice the yogurt has the same liquidity as milk, it means something was not done correctly and the bacteria did not get a chance to feed on the sugar in milk. What you have at this point is a milk, which has been sitting out of the refrigerator for 12 hours and you need to discard it.

You should not see any sign of mold or discoloration anywhere inside the pot. If you see mold or discoloration it is a sign of cross contamination. You need to through it out and wash your equipment very well.

If you see your yogurt is thicker than milk and has no sign of cross contamination, it means you have successfully produced yogurt.

# **5.4) Troubleshooting Tips:**

As mentioned above only two things can go wrong. Yogurt not forming or cross contamination. Here are possible reasons for each of these two.

**Yogurt Not Forming Properly:** In most cases this happens if instruction is not followed correctly. This can happen for any of the following reasons:

- Not enough yogurt was added to milk.
- Milk was too above recommended temperature when yogurt was added to it.
- Milk was too below recommended temperature when yogurt was added to it.
- Milk cooled too quickly after yogurt was added to it.
- Milk was placed in refrigerator too soon.

**Cross Contamination:** This can only happen if mold or bacteria enters warm milk after it has been boiled. This is a serious issue and points to the existence of some very strong mold or bacteria in your kitchen. This can happen for any of the following reasons:

- Milk was not heated to 180 degree temperature.
- Food thermometer was contaminated.
- Spoon used to add yogurt was contaminated.
- Lip placed on pot was contaminated.

Most of the above reasons point to a kitchen area contaminated with some strong mold or bacteria. Make sure all your equipment is washed well before using them again.

#### **5.5) Tips on Customizing the Taste:**

After yogurt is produced it can be customized in many ways. Here are some ways to customize yogurt.

- With or Without Whey: As mentioned earlier, there may be some water on top of the yogurt when you first check your yogurt. This water is called Whey and it has acidic properties. Some people like this liquid in their yogurt. All that needs to be done is to mix it with yogurt before consumption. It will make the yogurt softer for those who like soft yogurt. If you don't like Whey and want your yogurt to be firm, all you have to do is to remove this standing liquid as the final step for preparing your yogurt.
- **Thickness**: Eating thick & firm yogurt has been very popular in recent years. Greek yogurt is a yogurt, which has been drained of its liquid Whey. To make Greek yogurt at home one needs to have cheesecloth, a strainer (to hold the cheesecloth), and a bowel big enough to hold the strainer. That is all you need to drain the liquid Whey out of yogurt and make thick yogurt.
- **Customizing the Taste:** It is very easy to add flavors to yogurt. Any kind of fruit can easily be mixed with yogurt. There are other things that mix well with yogurt. Honey, crushed nuts, chocolate, coffee, chopped dates, raisins, are just a few examples.
- **Potency and Tartness:** To increase the potency of yogurt as a digestive remedy, all you have to do is to increase the time after adding the yogurt to warm milk. By letting the bacteria in yogurt feed on milk sugar longer than 12 hours more bacteria will grow. The byproduct of this extra feeding time is lactic acid. This gives the yogurt a tart taste. This is perfectly natural and does not mean the yogurt has gone bad.

# 5.6) Safety Issues

Like all food yogurt should be kept in a covered container and inside a refrigerated. For best results yogurt should be consumed between 2 to 4 weeks after it was made. The longer it sits the less potent the yogurt will become. Even though yogurt is very resistance to bacteria, you should always check for signs of contamination and mold. Here are a couple of examples to watch for.



#### **References:**

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  Press
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