

QUESO DIEGO

THE SAN DIEGO CHEESE CLUB

Yoghurt, Yoghurt Cheese and Kefir

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Yoghurt, Yoghurt Cheese and Kefir

What we're going to taste:

- Sheep's milk yoghurt, not drained
- Greek style, made with cream and whole milk, drained
- Island "Skyr" made with rennet

Yoghurt, Yoghurt Cheese and Kefir

What do these things have in common?

- Easy to make
- Healthy to eat
- Self-sustaining
- They're all a form of fermentation
- Probiotic

Yoghurt, Yoghurt Cheese and Kefir

What is Probiotic?

- Probiotic foods contain live bacteria and yeasts that are good for the digestive tract “good for your guts”.
- “Good” bacteria are needed for a healthy body
- Probiotics can replace bacteria lost by illness or antibiotics
- Lactobacillus is the most common type
 - This creates the tartness in Yoghurt and Kefir
- Bifidobacterium is also common. Good bacteria that can help with a number of digestive issues (ask your doctor about this)
- These probiotic bacteria are present in the foods we’ll be discussing

Yoghurt, Yoghurt Cheese and Kefir

What is Yoghurt?

- From a Turkish word meaning to curdle or thicken
- Thought to come from Mesopotamia around 5000BC
- Can be made with almost any mammal milk
- Made using a thermophilic bacteria starter
 - “Heat Loving” - Bacteria that prefer warm temperatures above 40C (104F)
 - Milk must be heated and kept warm in order to nurture the bacteria
- You can use an existing batch of yoghurt to make the next batch
 - Yoghurt contains cultures right in it

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Live and active bacteria in Yoghurt:

- Streptococcus Thermophilus
 - Helps bacteria survive the higher temps used in culturing yogurt
- Lactobacillus Bulgaricus
 - Feeds on lactose sugar and produces lactic acid
 - Help keep the pH in the small intestine low to prevent harmful bacteria to grow
- L. Acidophilus
 - Produces vitamin K as well as lactase, an enzyme that breaks down lactose
- Bifidus (Bifiobacterium)
 - Not to sure what this does. Seems to help with digestion...
- L. Casei
 - Aids in the growth of L. Acidophilus and general beneficial bacteria

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Let's make some Yoghurt

- What you'll need:
 - Double boiler pot (or gentle heat in a thick pot)
 - Thermometer
 - Spoon
 - Starter culture or store bought yoghurt with "Live Culture"
 - "Yogotherm" or some insulated container
 - Can be a thermos or a cooler

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Heat some milk

- You can use any milk as long as it hasn't been Ultra-High Temp Pasteurized
- The yoghurt cultures are thermophilic. This means they work best at a temperature of 104 to 115F
- If you want a thicker yogurt then heat the milk to about 180F for 30 minutes and then cool the milk to 110F before pitching the starter
- [How I do it, learned from our Turkish nanny in Germany:](#)

Heat the milk close to boiling point to 185F on your stove. Cool down to 105 - 115F



Use a double boiler to heat the milk. If heating on the stovetop, be very careful!

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Cool the milk and add the starter

- If heated over 120F, put the pot in the sink with cool water to bring the temperature down quickly
- Once it is cooled to 120F you can transfer the milk to an insulated container
- If using a powdered starter, follow the directions
- If using a previous batch or a store bought yogurt, then put about 2 Tablespoons of that per quart of milk
- My way: I just cool the milk on the countertop to reach 105-115F, I don't add milk powder, just left over yoghurt as a starter from a previous batch



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Maintain the Temperature

- It's important that the container remain insulated to keep the temp up for 8-18 hours.
- Chris uses a ½ gallon insulated Thermos
- Larry uses the Yogotherm
 - It holds 2 quarts with extra room for starter
- My way: I simply use the oven lights in my oven and keep them on over night, max 12 hours



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Finish

- Test your culture to see what the best setting time is
- **My way: I use 6-12 hours.** If you wait too long, the curd and whey will separate (just stir if this happens)
- When it's done you can put it into a container, stir, and then refrigerate until you want to eat it
- If you keep the yoghurt on your counter at room temperature. The yoghurt will still slowly ferment and gives you a more tangy flavor. Refrigeration stops the process
- Before you eat the entire batch save some to use as a starter for your next batch
- If you want Greek Style yogurt then...

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Greek Style Yoghurt

- This is a thicker style of yoghurt made by straining off the whey.
- Real Greek yoghurt has 10% fat and made from sheep's milk
- This also provides less sugar, fewer carbohydrates and more protein per portion than regular yoghurt



Straining time will determine the final thickness. One yoghurt you'll try tonight, was strained for 4 hours. If this turns out to be too thick for your liking, add some whey.

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Yoghurt and Yoghurt Cheese specialties and Middle East favorites:

- Raita is a yoghurt dish, Indian condiment for spicy food
- Lassi, yoghurt drink salty or sweet diluted with water. Popular in India
- Ayran, Turkish national drink, similar to Lassi
- Tzatsiki, Greek yoghurt with cucumber and garlic, classic condiments for BBQ
- Yoghurt is an excellent ingredient for many dishes, like salad dressing, Persian cold yoghurt soup, desserts and more
- Recipe for Persian cold yoghurt soup will be featured in our next Queso Newsletter
- Yoghurt Cheeses can be drained even further to make a thick cheese
- Common examples are Labneh and Laban
- Continue to drain for several hours to a day, until desired thickness is achieved

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Milk Kefir – What is it?

- Like yoghurt, kefir is a thickened drink made from milk
- It has probiotic properties
- Kefir is made produced by “Kefir Grains” that use the milk and lactose sugar for food
- You feed the grains and they give you Kefir
- There is a type of “Water Kefir”? That’s for another time...

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How is it different from yogurt?

- Unlike yoghurt, Kefir cannot be propagated by using some of the old batch to start a new one
- Yoghurt cultures are thermophilic while Kefir grains are mesophilic, they grow at room temperature
- Yoghurt culture contains bacteria but little or no yeast
- Kefir grains are a complex community of bacteria and yeast
- The grains need the sugar and milk proteins to live
- The yeast can produce a slight amount of alcohol

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Kefir Grains

- They look like little cauliflower clumps or small grain more comment here
- As you make batches of Kefir the grains multiply and grow.
- They are living organisms and must be fed to stay alive and healthy
- You cannot make Kefir grains from Kefir, you must obtain some



Yoghurt, Yoghurt Cheese and Kefir

Bacteria and Yeasts found in Kefir grains:

(For the scientists amongst us!)

- **Bacteria** *Species Lactobacillus* Lb. acidophilus Lb. brevis [Possibly now Lb. kefir] Lb. casei subsp. casei Lb. casei subsp. rhamnosus Lb. paracasei subsp. paracasei Lb. fermentum Lb. cellobiosus Lb. delbrueckii subsp. bulgaricus Lb. delbrueckii subsp. lactis Lb. fructivorans Lb. helveticus subsp. lactis Lb. hilgardii Lb. helveticus Lb. kefir Lb. kefiranofaciens subsp. kefirgranum Lb. kefiranofaciens subsp. kefiranofaciens Lb. parakefir Lb. plantarum *Species Streptococcus* St. thermophilus St. paracitrovorus
- *Species Lactococcus* Lc. lactis subsp. lactis Lc. lactis subsp. lactis biovar. diacetylactis Lc. lactis subsp. cremoris *Species Enterococcus* Ent. Durans
- *Species Leuconostoc* Leuc. mesenteroides subsp. cremoris Leuc. mesenteroides subsp. mesenteroides Leuc. dextrans
- **Yeasts** *Dekkera anomala/Brettanomyces anomalus Kluyveromyces marxianus/Candida kefyr Pichia fermentans/C. firmetaria Yarrowia lipolytica/C. lipolytica Debaryomyces hansenii/C. famata Deb. [Schwanniomyces] occidentalis Issatchenkia orientalis/C. krusei Galactomyces geotrichum/Geotrichum candidum C. friedrichii C. rancens C. tenuis C. humilis C. inconspicua C. maris Cryptococcus humicolus Kluyveromyces lactis var. lactis Kluyv. bulgaricus Kluyv. lodderae Saccharomyces cerevisiae Sacc. subsp. torulopsis holmii Sacc. pastorianus Sacc. humaticus Sacc. unisporus Sacc. exiguus Sacc. turicensis sp. nov Torulaspora delbrueckii Zygosaccharomyces rouxii*
- **Acetobacter** *Acetobacter aceti Acetobacter rasens*

Source: Cultures for Health
Milk Kefir Handbook

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How to make Kefir:

- Take 1 quart milk, room temp.
- Add ¼ cup Kefir grains
- Cover and wait for 18-36 hours
 - The longer you wait the more tart the final kefir. You decide how you like it.
- Strain the grains
- Refrigerate the Kefir
- Start a new batch
- Drink Kefir
- Repeat
- [How I learn it from my mother in law:](#)

Heat the milk close to boiling point, cool down to lukewarm temperature add Kefir fungus and let it sit overnight in the kitchen, max 24 hours



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Your 1st Kefir

- You can buy a starter grains from eBay or obtain them from a friend
- You'll need to bulk up the grains before you can make a large volume of Kefir
- It won't take long to build-up a good batch of grains
- Use about 1C milk per Tablespoon of grains
- Let sit for 24 hours
- Strain the grains
- Repeat a couple times
- After that you can make a quart and go from there



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Cautions when using the Kefir grains!

- You can rinse the grains with distilled, RO, or cooled boiled water
- Do not rinse with chlorinated water. This may damage or kill the grains. You can rinse with milk
- I never rinse my grains/fungus. Just strain the Kefir grains
- Many sites will tell you to never use metal with the grains. This was true in 1910, but with stainless steel there's not problem. You don't need special "Kefir Strainers". You can use a slotted spoon or your hands. I use a stainless tea strainer
- If you want to take a break from making Kefir then put the grains in a small Tupperware and cover with milk and store in the fridge. Drain and repeat every few days

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What Kefir do we have today?

- Couldn't say at press-time, TBD

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General Notes on Kefir

- You can adjust the tartness by how long you leave the grains in the milk
- You can make a slightly effervescent and low alcoholic Kefir by removing the grains, covering the container, and leaving out at room temperature for a few days

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Kefir Recipe Suggestions:

- Can be drank as-is, room temp or chilled
- Can be used for a variety of tasty drinks:
 - Kefir smoothies - use in your favorite recipes in place of milk or yogurt
 - Kefir milkshakes - use in place of milk in any shake recipe
 - Kefir protein shake - mix with your favorite protein powder after workout
 - As starter culture for cultivated butter and for yoghurt

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Special THANKS! To:

- Chris Banker for providing the base presentation with input from Larry Stein
- References:
 - Cultures for Health website
 - www.culturesforhealth.com
 - The interwebs
 - WebMD.com
 - Probiotic.org
 - “Wild Fermentation” and “The Art of Fermentation”, by Sandor Katz

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THANK YOU!

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