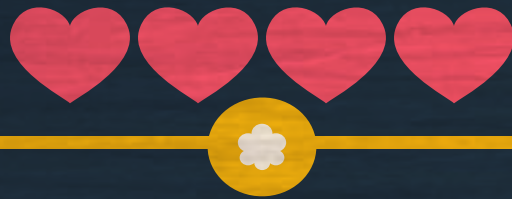


kefir garden 

Milk Kefir Guide



Thank you for choosing Kefir Garden!



Welcome to the wonderful world of
homemade kefir!

Probiotics and potential benefits await!
Making kefir in your own kitchen is not only very
cost-effective but also deeply satisfying!

Our comprehensive guide is designed to transform you from a
novice to a seasoned kefir connoisseur! 🎩

You can read through the entire guide or
jump to any section you would like!

Let's get started!

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Questions?

Please contact us, we would love to hear from you!

Email: evelyn@kefirgarden.com

Contact Form: www.kefirgarden.com/contact

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Happy Kefir Making!

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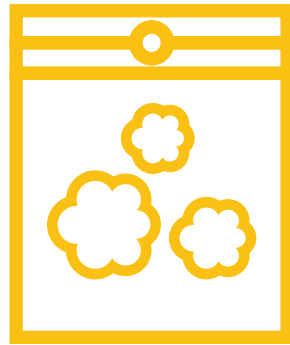
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The tools you'll need:

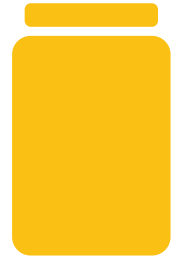
To make your first batch of kefir you need:



Milk



Kefir Grains

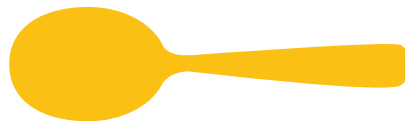


Glass Jar
(with lid)

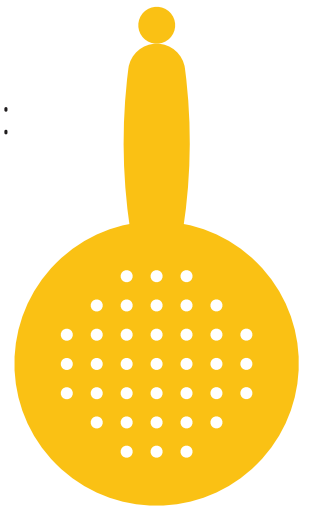
To free your kefir grains for reuse:



Bowl



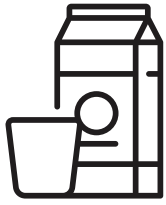
Spoon
(Non-metallic)



Strainer
Fine Mesh
Stainless Steel



The **SECRET** to Making Perfect Kefir



Milk Quality
and Type



Proper Kefir Grain
to Milk Ratio



Temperature
Control



These three aspects of kefir making form a triad that combines to create the perfect kefir!

Once you have learned to balance these elements, kefir making becomes easy and second nature.

In the following pages we will discuss these three elements in detail.



Dairy Milk

Here are a few types of milks customers use!



Cow



Sheep



Goat



Water
Buffalo



Camel

Ultrapastuerized milk is fine! It doesn't damage the grains at all.

Milk Fat

We recommend using 2% milk fat

Milk fat can aid in creaminess. However, too much milk fat can choke the kefir grains. The milk globules will cling to the grains and prevent them from accessing the milk. When this happens, your kefir will behave irregularly and not ferment properly and can potentially kill the grains from starvation.

For this reason, its best to start off with 2% and then when your grains have grown to about a tablespoon or more, you can try using higher fat milk.

About Raw Milk and Unhomogenized Milk

Avoid raw milk and unhomogenized milks when starting out until your grains have grown. Since the milk fat separates, the grains will get stuck in the fat and starve.

Many customers have used raw, unhomogenized, and higher fat milk successfully after their grains have grown!



Non-Dairy Milk



Many customers ferment non-dairy milk, and there are some things you should know.

Kefir grains are composed of a complex sugar called kefiran formed from galactose and glucose molecules broken down from the lactose found in dairy milk. Non-dairy milk doesn't have lactose, so this is an issue that customers must overcome.

When you receive your kefir grains, you should make a few batches with dairy milk so that you know your grains are healthy and growing. The first thing you should do after you have started producing extra kefir grains is to freeze some as a backup, **(page 24)**. Things happen, and having a backup can bring peace of mind. After that, any other kefir grains you produce can be used for experimentation!

Use sweetened non-dairy milk as the bacteria need energy to ferment properly.

Your kefir grains that are used for other non-dairy milk would need to be fed dairy milk every week or so for them to survive. They need lactose to grow. You can think of it as giving them a break. You should use sweetened non-dairy milk as the bacteria will consume the sugar and leave it unsweetened for drinking.

There is one thing you should watch out for with your experimentation. When kefir grains begin to die, they will either change colour or disintegrate. So if you start seeing them vanish or look a little "off" (like orange or pink), they should get back into milk ASAP in order to preserve their growth factor.



A general ratio for milk to kefir grains is:

Your Starter Amount

To produce 1 1/2 cups of kefir:

- 1 teaspoon of kefir grains
- 1 1/2 cups of milk



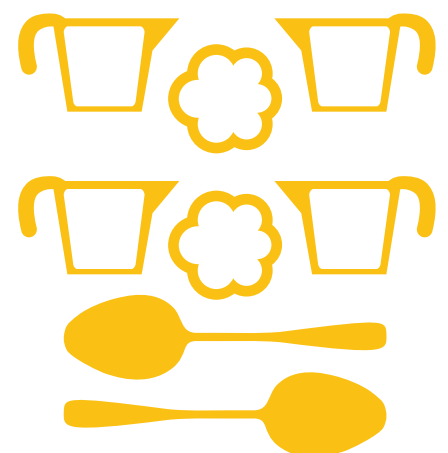
To produce 2 1/2 cups of kefir:

- 2 teaspoons of kefir grains
- 2 1/2 cups of milk



To produce 4 cups of kefir:

- 2-4 TBSPs of kefir grains
- 4 cups of milk



Temperature Control

Kefir ferments best at this temperature:

78°F or 25°C

Kefir grains derive their metabolism from the surrounding environment.

Customers with this temperature or slightly warmer usually see activity readily.

For homes with chillier temperatures, you may not see any activity at all or produce kefir that isn't fermented correctly. Warming the jar is necessary.

In the following pages we will discuss some warming options for those who have homes on the chilly side. We hope these options work for you or gives you an idea that works best for your home!

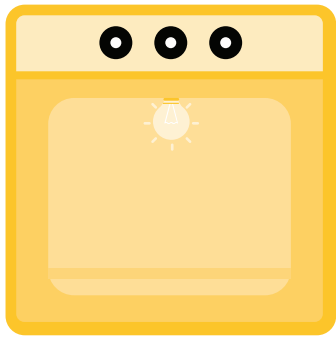


Warming Options

If your home is chilly, here are some options to warm your ferments. Feel free to use other ideas! **Always ensure your warming source is not too hot by testing with a thermometer or your hand.**

Oven Method

Start a fresh batch of milk kefir and place the fermenting jar in the oven with just the light on.

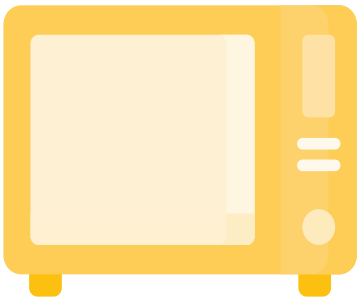


For most homes, the oven light provides enough heat. However, some ovens can get too hot and cook the kefir grains.

To test, turn on the oven light for half an hour and check the temperature with a thermometer or your hand. It should be around 25-30°C (77-86°F). Higher temperatures can cause the grains to disintegrate.

If your oven is slightly too warm, prop the door open with a towel to lower the temperature.

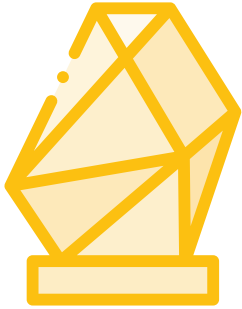
Microwave Light



Some customers use the microwave light to increase the temperature, keeping the door ajar to keep the light on. This raises the temperature to a suitable range. As with the oven method, wait and check how hot the microwave gets with just the light on. **Of course, don't turn on the microwave!**



Warming Continued



Trusty Lamp (like a salt lamp)

Some customers use small lamps to raise the temperature near the jar to a suitable range. If you have a salt lamp, usually you can adjust the brightness to control the temperature.

Baker's Method

This is from one of our customer's solutions. It has worked for others as well:



"I thought of it, as I'm a bread baker and when I need my bread to rise quickly, this is what I do. I just placed my jar in my oven and put a Pyrex bowl beside it. I poured boiling water into the bowl and closed my oven. I had originally thought I'd perhaps change the water, but I didn't need to. The heat and humidity from that original bowl of boiling water did the trick!"

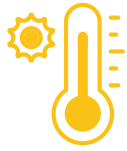


Seeding Mats or Kombucha Warmers

Many customers use seeding mats or warmers to successfully bring the temperature up to a suitable range.



Understanding Ambient Temperatures



Higher Temperatures

The higher the temperature from the ideal range, the faster the fermentation cycle.

This means that your kefir will ferment sooner than the 24 hours, sometimes even as little as 12 hours.

The reason this happens is because the bacteria living on and inside the kefir grains become very lively when it is warm—just as people like to be more active in the summer months when the weather is nice.

Too much heat isn't ideal for fermenting kefir because over-fermentation can easily occur. This will cause your kefir to become acidic or even kill your kefir grains if you are not careful.

Over-fermentation due to heat

If over-fermentation is happening and you can't move your kefir to a cooler location, you can either reduce the amount of kefir grains you are fermenting with, or increase the amount of milk. An indoor thermometer is extremely useful in these situations.

We once had a customer with a very warm home, and she could only use an 1/8 teaspoon of kefir grains for 4 cups of milk! Any more than that and she had very sour kefir.

Shrinking Kefir Grains

The closer to **85F** or **30C** and above up to **40C** or **105F** the smaller kefir grains will become. This is a natural behaviour. You will notice after each subsequent batch that your kefir grains begin to shrink from the heat.

This doesn't affect their potency, but if they are not placed in cooler conditions, they will become so tiny that you will not be able to retrieve them from your strainer.

Kefir grains can die if exposed to too much heat so always remember to have back up kefir grains in your freezer so you have peace of mind in the summer months!



Ambient Temperature

Continued



Cooler Temperatures

The lower the temperature away from the ideal, the slower the fermentation cycle.

This means that your kefir will take much longer than 24 hours to ferment. It could take 36 hours or even days if your house is chilly at room temperature. Since the bacteria derive their metabolism from their environment, they will be very sluggish at colder temperatures.

Whereas too much heat will kill your kefir grains, we have never experienced, nor heard reports of kefir grains dying from extreme cold. We have had customers receive their packages at -25F or -32C and their kefir grains became active right away.

If your kefir grains are slow to ferment and you are just getting sour milk, it is best to use the oven method or place them in a warmer part of your home.

Some customers' homes are so chilly that their kefir grains will not ferment their milk even after waiting 4 days at their chilly room temperature. If this is happening, then you must find another way to keep your kefir at a stable, warmer temperature without excessive heat. We recommend an indoor thermometer.

If you simply cannot get a better location to warm the jar enough to ferment, the next option is to use less milk, or use more kefir grains. The reason is less milk increases competition for lactose with the bacteria in kefir. This causes faster fermentation by consuming the lactose more quickly.

Think of it like taking some bread to feed ducks. If you have a whole loaf for one duck it will take her a while to eat it alone, but if you have one loaf for many ducks, the bread will be consumed very quickly. This is what reducing the milk does.

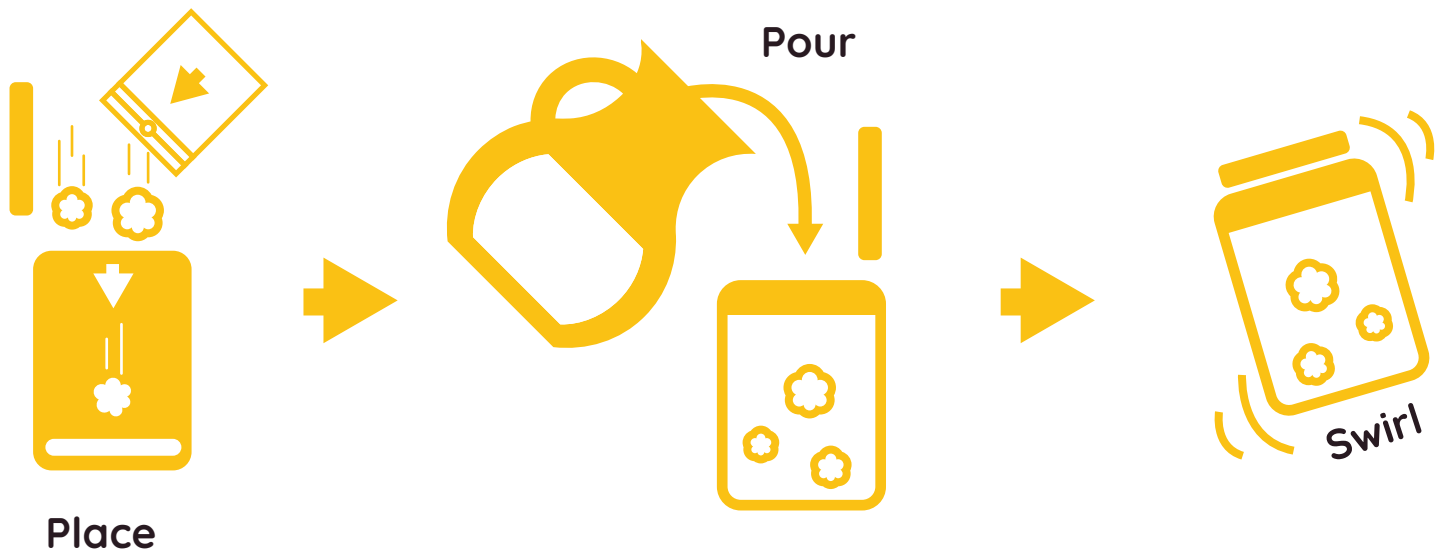
Kefir that is fermented at colder temperatures form larger clumps. Sometimes the clumps become so large they can be the size of your hand.

The size of your kefir grains do not affect their ability to ferment. It is merely cosmetic.



Your First Batch!

Step 1: Place your milk kefir grains in a jar then pour in the correct amount of milk. Milk straight from the fridge is fine!

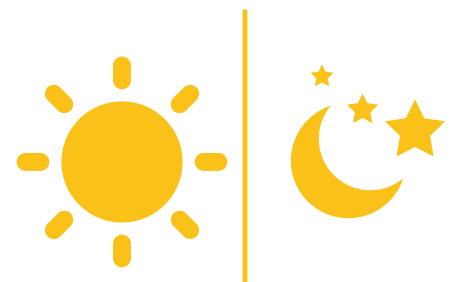


1. Place your kefir grains in the jar with the correct amount of milk.

2. Use an appropriately sized jar in order to reduce the amount of air inside the jar.

3. Swirling the jar around assists the beneficial bacteria in spreading throughout the milk.

Wait 24 Hours



Cover with a lid **tightly** and let it sit for **24 hours** at room temperature.



The temperature of the room greatly affects fermentation rates. **(pg. 6-10)** As previously mentioned, kefir does best at **78F or 25C**

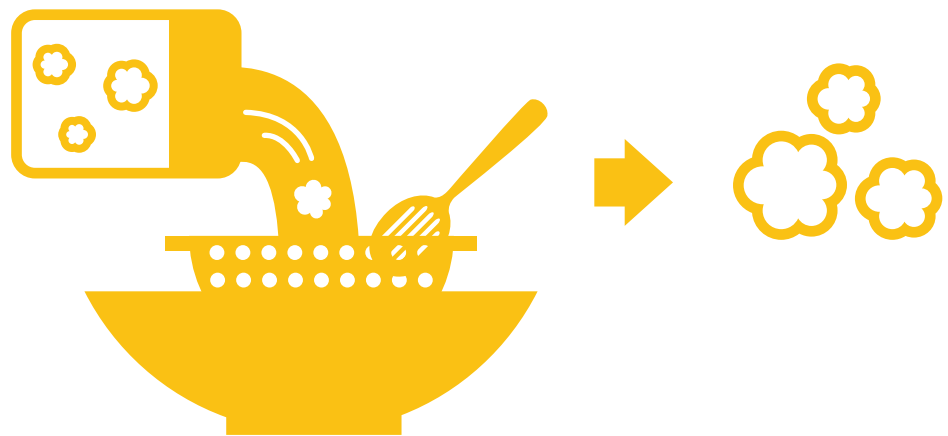
Paying attention to the ambient temperature where your kefir is fermenting will help create consistent results. Every home is different, so a bit of experimentation is necessary at times.



Step 2: Strain your kefir and save the kefir grains for reuse

No need to rinse the kefir grains!

After 24 hours, gently strain the kefir through a strainer (stainless steel is fine), to reserve the kefir grains for further batches. Within days, you will notice your kefir grains growing and multiplying.



Please note:

During the fermentation process, the bacteria will release carbon dioxide, making the kefir a little bubbly. Please take care in opening the jar, there could be considerable pressure. If you are concerned about an eruption of kefir, put the jar in the fridge for a half hour. This will decrease the air pressure inside the jar.



Start the process over again!



How can I tell if my kefir is done?

You will know your kefir is done when you start seeing separation as pictured below. You should expect to see this within 24 hours when you have close to normal conditions.

Early Sign of readiness



Major Sign of readiness



Over Fermentation

When hard curds form, difficult to strain



Over-fermentation is when your kefir becomes too acidic to consume. Some also describe it as very “bitter”.

This can happen because of 4 reasons:

1. Higher ambient temperatures (**pg. 9**)
2. Too little milk (**pg. 5**)
3. Too much kefir grains (**pg. 5**)
4. Improper straining that causes excess kefir to cling to the kefir grains. When placed in the new batch, there will essentially be too much starter liquid.

If you have ruled out ambient temperatures as an issue, then perhaps your kefir grains have grown and you need to either remove some, or add more milk to increase the amount of food available.

Exaggerated separation, very acidic



Under Fermentation

Under-fermentation or unfermented kefir can be very disappointing. You have waited for 24 hours and then see little to no change in the milk, or just “sour milk” with no coagulation.



If this occurs, even if you believe your home is warm enough, you should use warming methods to boost the metabolism of the bacteria. **(pgs. 7-10)**

If these methods don't work, the next step is to reduce the milk by half and try the warming method again.

Colder temperatures take much longer to ferment so by decreasing the amount of milk, you are increasing the fermentation rate.

Usually, the warming method is enough to increase the fermentation rate. The warming method coupled with a reduction in milk should increase the rate of fermentation greatly.



What to do with your finished kefir?

Kefir Storage

Short Term

After you have finished fermenting your kefir, you can store it in the fridge for about **two days**. Kefir continues to ferment slowly, so after two days it may become **too acidic** for your liking.

Long Term

If you need to save kefir for longer periods, place your finished kefir inside freezer bags. Make sure excess air is removed and seal it tightly. Freeze your kefir and remove it when needed. You can defrost your kefir by placing in the fridge overnight. Or you can place it in a blender to make smoothies from frozen.



Good for 2-3 days
in the fridge



What to do with your finished kefir?

Kefir Cream Cheese



One of our FAVOURITE things to do with kefir when we are finished is to make kefir cream cheese! It is incredibly delicious and easy to make.

Kefir cream cheese is more delicious than store-bought cream cheese. It has a buttery flavor to it that makes it extra delectable!

But that isn't the only thing that makes kefir cream cheese great. Kefir cream cheese has the probiotic potency of kefir! It tastes good and is good for you too!

Over the next few pages we will show you how to make kefir cream cheese!



Kefir Cream Cheese

The Tools



What you will need:

1. Coffee Filters
 2. Colendar or Strainer
 3. Finished Kefir
 4. Bowl to catch the whey
- (Optional) A Lid or Plastic Wrap



Kefir Cream Cheese

Set up



First, take a bowl that is bigger than your colendar or strainer (C or S).

You will want the bowl to be large enough to have the C or S sit inside of it.

Next, place your C or S into the bowl as pictured here.

If your C or S touches the bottom of the bowl, use a mason jar lid without the top to prop the bowl up.



Kefir Cream Cheese

Set up Continued

Next, take your coffee filters and line the inside of your C or S. Be careful not to leave any gaps so that your kefir will not slip through.

For our colendar it takes 4 coffee filters. If your coffee filters will not stay open, try flipping them inside out or making them slightly damp with a little water.



Now you can pour your kefir into the center. Don't pour it too fast, or your coffee filters may shift and kefir may slip through.



Kefir Cream Cheese

Draining Whey



Cover your colander and place it in the fridge for 24-48 hours. The longer you left your kefir drip, the firmer your cream cheese!

IMPORTANT

Depending on the depth of your bowl, as the whey drips from the coffee filters, your kefir cream cheese(KCC) may sit in whey. This will cause your KCC to become a bit wet.

To prevent this from happening, drain the bottom bowl once every 6-12 hours.



In this picture, we lifted the colander so that you can see some drops of whey.

It is good to check right away to determine if only whey is falling to the bottom.

If you see kefir falling through, then you should redo the coffee filters to make sure there are no gaps.



Kefir Cream Cheese

Transferring to container

After 24-48 hours your kefir cream cheese will start to become velvety and have a slight sheen to it.

We usually transfer the kefir cream cheese after 24 hours. It will be as thick as greek yogurt, but will still have active probiotics and a unique butteriness.



To transfer into your container, scrape from the center towards the edges. This will prevent the coffee filters from falling back into the kefir cream cheese.



Kefir Cream Cheese

Shelf Life



That is all there is to it!

Your kefir cream cheese can be treated like commercial cream cheese in dishes. You can try flavoring it any way you like! If you find a recipe you love, please send us a message. We would love to hear from you!

Kefir cream cheese can be kept in the **fridge for up to 3 days**. Since it has live probiotics it will keep fermenting at a slower rate. This means it will continue to become acidic. Ours doesn't last more than a day in our home!

What should I do with the whey?

We have used the kefir whey in the past to ferment veggies by adding a tablespoon to 1/4 cup to the batch. It adds lactic acid and jump-starts the process with beneficial bacteria. As always, we screw the lid on tightly.

Every few days, when the fermentation really gets going, you will want to unscrew the jar lid to reduce pressure inside and then reclose the lid. Alternatively, you can purchase specialized lids that eliminates this need. Our customers have recommended Pickl-it Jars. Here is the link to the site below:

<https://www.pickl-it.com/>



What to do with Excess Kefir Grains?

Kefir Grain Storage

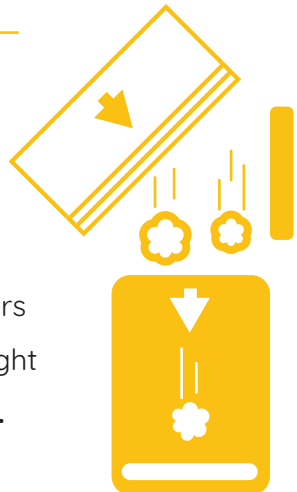
After fermenting kefir for a while, you will end up producing extra kefir grains. The first thing you should do before experimenting with other types of milks is save some as a backup. This method is also used when you want to take a break from kefir making.

To Freeze



To Defrost

Place in the freezer until you need to use it. To defrost, simply place your kefir grains into fresh milk. In 24 hours everything should be back to normal if you have the right milk to kefir grain ratio. **See page 5 for ratio amounts.**

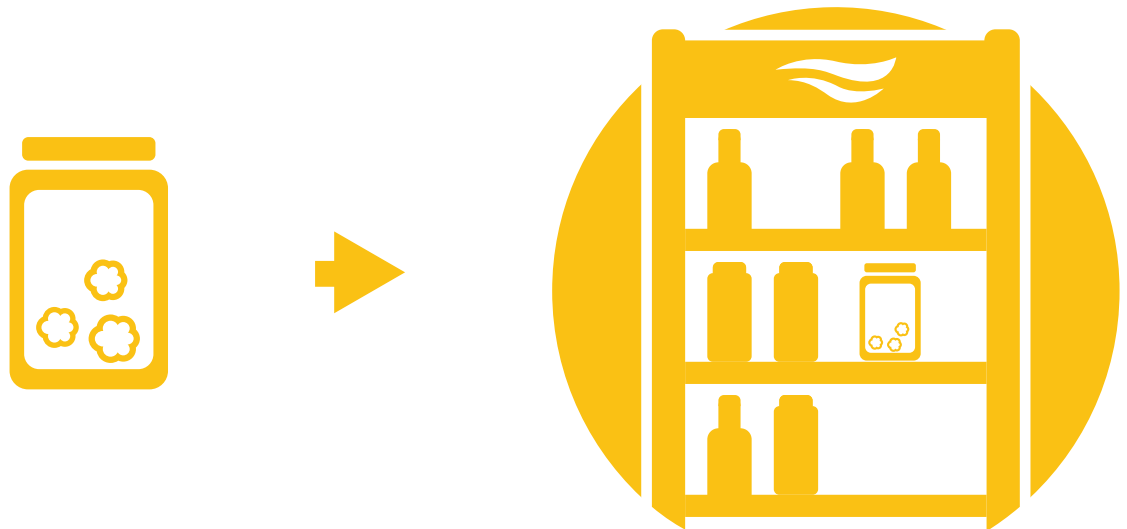


Taking a break?

If you would like to take a break from kefir making, start a fresh batch but instead of fermenting it in the usual location, place it directly in the fridge. Try adding a tablespoon of finished kefir to the jar to help reduce the growth of mold and harmful bacteria.

You can store your kefir grains this way for a couple of weeks before needing to change the storage milk again.

When you are ready to start a new batch, change the milk to fresh milk and start again!



FAQs

(Frequently Asked Questions)

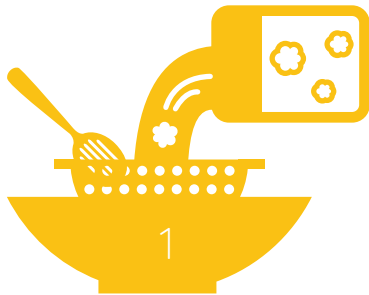
My Kefir is very firm and difficult to strain. What should I do?

This happens when kefir becomes over-fermented and separates into curds and whey. **(pg. 11)**

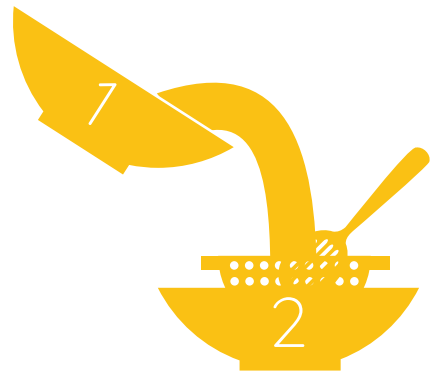
Try a shorter fermentation time, or use less grains with the next batch.

You will need **two bowls, a wooden spoon and a strainer.**

First, try to strain as much kefir as you can into **bowl 1**



Next, transfer the strainer with the kefir grains into **bowl 2.**



Pour the kefir from **bowl 1** a little at a time into **bowl 2**. Try to gently massage the curds loose from the kefir grains by using the kefir.

When kefir separates into curds and whey, the curds are fairly dry. What you are aiming to do with this method is to use the moisture from the kefir to release the kefir grains from the remaining curds.

Repeat this process until you have freed your kefir grains.

Kefir is still milky and hasn't thickened much or at all. What should I do?

Usually this is a chilly temperature issue. Sometimes a customer's temperature readings are different from actual room temperature. When this happens, a home can be on the chillier side even though you have set it to the ideal temperature range.

Please take a look at pages 5, 7-10 for explanations and solutions.

FAQs Continued

I just made my first batch of kefir and it tastes yeasty. What should I do?



Kefir has natural yeasts that eat lactose in milk. During transit, the populations of probiotics may become unbalanced or your home may have high natural environmental yeasts. Rinse your kefir in fresh milk and discard the milk while retaining the kefir grains in the strainer. Then place the kefir grains in fresh milk in a clean jar and do another batch. Keep your lid tight! Airflow makes yeast thrive. After a few batches you will notice the yeast flavour go away.

Oh no! I dropped my kefir grains on the floor, can I rinse them?



Yes, you can rinse kefir grains, in dairy milk only. Tap water is chlorinated to kill bacteria! Distilled water is okay, but dairy milk is the best. Rinse your kefir in fresh milk and discard the milk while retaining the kefir grains in the strainer. Then place the kefir grains in fresh milk in a clean jar and do another batch.

Can I store my kefir grains in the fridge?



Yes, you can store them temporarily. Place them in fresh milk, close the jar and put them in the fridge. Add about a tablespoon or two of finished kefir to the jar. The colder temperature will slow down the metabolism of the bacteria, causing them to ferment the milk slowly. With this process you will be able to store the milk for a week or longer. We have heard some reports of people storing their grains for a month with this method.

What kind of milk is best? Can I use other milk types?




Any kind of milk may be used—including goat, sheep's milk and even camel! **(pg. 3)** Milk kefir grains may also be used to ferment nut milks and coconut milk. However, they will only grow and thrive in dairy milk. Wait until you have excess kefir grains to experiment with other types of non-dairy milk.




FAQs Continued

How do I make my kefir smooth and creamy?



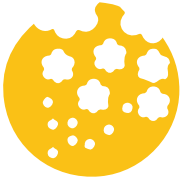
The secret to smooth and creamy kefir is in how you prepare it. When you prepare kefir, make sure you close the lid tightly. The bacteria that make kefir smooth and bubbly prefer a low-oxygen environment. Closing the lid tightly allows them to thrive and create the creamy consistency everyone loves. If you are concerned about the lid popping up when you open the jar, place the jar in the fridge for 30 minutes to decrease the pressure inside the jar. You will be able to open it with ease and strain out the kefir grains for reuse. Higher milk fat also creates creamier kefir, so try 2% or whole milk! **(pg. 3)**

Are milk kefir grains edible?



Yes! Kefir grains are composed of a complex sugar called kefiran. They taste like sour gummy candy. Kefiran has been shown in studies of mice to have anti-inflammatory, anti-carcinogenic, and anti-fungal properties. On the surface of kefir grains exists the bacteria that multiply in milk. So consuming them directly is like taking a super probiotic pill. Kefir grains also make smoothies really thick!

What do I do with the excess kefir grains?



Freeze them first! **(pg. 24)** A back-up is always great to have. You can eat the excess kefir grains, or give them to a friend. You can throw them into smoothies as a thickener! You can also try experimenting with non-dairy milks like almond and coconut.



Congratulations!!!



You are now a milk kefir making pro!

Questions? Comments? Saying Hello!

Contact us at:
kefirgarden.com/contact

We hope this guide was helpful! 😊

Our customers are our greatest inspiration! Hearing from you keeps us going, growing, and learning! We want to be better for you. If you have any questions at all, please don't hesitate to contact us.

Also, if you have any ideas or experiments you want to share, we would love to hear about it! Our customers have also taught us so much and we love to share the knowledge through our guides.

We wish you all the best on your journey to better health!

★ Happy Kefir Making! ★