

Kefirko<sup>®</sup>

# MILK KEFIR FERMENTING



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## INTRODUCTION

Welcome to a journey of health, wellness, and convenience. Maintaining a wholesome routine for us and our families is paramount in our busy lives. This includes ensuring we prioritise our health and well-being. One simple yet powerful way to achieve this is by integrating kefir into our daily lives. Kefir, a fermented milk, isn't just a drink; it's a lifestyle choice—a step towards a more balanced and vibrant way of living. In this guide, we'll explore the wonders of kefir, how its preparation can seamlessly fit into our fast-paced lives, and how it boosts our well-being.



## ORIGINS OF MILK KEFIR

Originating from the Caucasus region, kefir, also known as búlgaros, has a rich history dating back centuries. The traditional preparation involved fermenting cow, goat, or sheep milk with milk kefir grains. Fascinatingly, kefir was traditionally made in goatskin bags that were hung near the entrance to the house. Each time a visitor arrived, they would knock on the bag, ingeniously aiding in keeping the milk and kefir grains well mixed.

This age-old practice has endured the test of time, transcending generations and continents. From its humble beginnings in the Caucasus mountains to modern households worldwide, kefir's journey has been one of cultural preservation, culinary evolution, and scientific discovery.



## WHO SHOULD DRINK KEFIR?

Drinking milk kefir provides a powerful dose of probiotics that support gut health, aiding in digestion and potentially improving the immune system. It's rich in calcium and other essential nutrients, benefiting bone health, and offers potential anti-inflammatory properties. It's a great option for those seeking to incorporate probiotics into their diet, promoting a balanced gut microbiome and potentially improving the immune system.

- ✓ **Adults:** Seeking to improve gut health, digestion, and overall well-being.
- ✓ **Children:** As a nutritious option, provided they can tolerate dairy or suitable non-dairy alternatives.
- ✓ **Elderly:** Supporting gut health and potentially enhancing nutrient absorption, is important for older individuals.
- ✓ **Health-conscious Individuals:** Interested in probiotics, calcium, and other nutrients for overall health.
- ✓ **Athletes and Fitness Enthusiasts:** For its protein content and potential benefits in muscle recovery and digestion.
- ✓ **People with a Variety of Dietary Preferences:** Including those who can tolerate dairy and those who opt for non-dairy alternatives like coconut or almond milk kefir.



## HOW MUCH KEFIR SHOULD YOU DRINK?

Starting with small amounts of kefir, typically 1-2 tablespoons a day, is a good approach to introducing kefir to your diet. This allows your digestive system to gradually adapt to the live cultures present in kefir. Over the course of a week or two, you can gradually increase the amount to about 150-300ml a day, monitoring how your body reacts. Always consider consulting a health-care professional, especially if you have specific health conditions or concerns. Initially, you may experience mild digestive changes such as bloating or increased bowel movements. This is often a sign that the probiotics in kefir are starting to balance your gut flora. It's recommended to drink kefir continuously for at least 3 months so notice the benefits.

## FROM MILK TO KEFIR

Kefir, a fermented beverage with a rich tradition and a myriad of health benefits, is a result of milk undergoing a fascinating transformation. At its core, kefir is a cultured dairy product, typically made using cow's, goat's, or sheep's milk. What sets kefir apart is the fermentation process that happens with a symbiotic culture of bacteria and yeast, often referred to as kefir grains. The kefir grains, teeming with live cultures, initiate a magical transformation. Lactobacilli, for example, is the bacteria that converts lactose in milk (milk sugars) into lactic acid in yoghurt and kefir giving it its sour taste. Simultaneously, yeast within the grains ferment the sugars as well, resulting in the production of carbon dioxide. This effervescence, akin to champagne bubbles, lends kefir its unique, lightly carbonated nature. The outcome of this intricate fermentation process is a beverage with a taste and consistency akin to thin yoghurt but teeming with a plethora of health benefits.

## WHAT MILK TO USE?

If you're diving into the world of making milk kefir, or perhaps seeking to broaden your horizons in kefir crafting, a common question that may arise is, "What kind of milk is best for milk kefir?" The options extend beyond traditional cow's milk; goat, sheep, or even non-animal milk present intriguing possibilities.



Many kefir enthusiasts often find themselves pondering if choosing a particular milk might hinder or slow down the vitality of their precious kefir grains. The concern is valid, as kefir grains are perceived as a unique and cherished gift. When receiving the grains, understanding what type of milk was used before is crucial, as variations can necessitate some adjustment time for the grains.

The choice of milk for kefir preparation is, in a way, a matter of personal preference. It significantly influences the resulting texture, aroma, and thickness of the kefir beverage. During the fermentation process, kefir grains consume lactose, making kefir almost lactose-free. However, for those with more sensitive digestive systems, opting for different kinds of milk, such as soy or nut milk with no lactose, is a viable and comforting choice.

**COW'S MILK:**

*Taste:*

Mildly sweet and creamy, with a typical milk flavour.

*Consistency:*

Creamy and thick, resulting in traditional dairy kefir.

**GOAT'S MILK:**

*Taste:*

Slightly tangy and creamy, with a unique flavour distinct from cow's milk.

*Consistency:*

Creamy and thick, similar to cow's milk kefir.

**SHEEP'S MILK:**

*Taste:*

Rich and creamy, with a slightly sweet and distinct sheep's milk flavour.

*Consistency:*

Creamy and thick, resembling cow's milk kefir.

**BUFFALO MILK:**

*Taste:*

Creamy and richer than cow's milk, with a slightly sweet flavour.

*Consistency:*

Creamy and thick, similar to cow's milk kefir but with a richer texture.

**CAMEL MILK:**

*Taste:*

Slightly salty and creamy, with a unique taste different from traditional dairy.

*Consistency:*

Creamy and slightly thinner than cow's milk kefir.

**DONKEY MILK:**

*Taste:*

Sweet and mild, with a creamy texture.

*Consistency:*

Creamy and slightly thinner than cow's milk kefir.

**LACTOSE-FREE MILK CANNOT BE USED TO FERMENT MILK KEFIR.**

During the fermentation, the lactose serves as a food for bacteria, and fermented kefir has almost no lactose. But if you're lactose intolerant it's better to find another alternative (vegan milk kefir, water kefir, kombucha, etc.).



## VEGAN MILK KEFIR

Vegan kefir, a dairy-free alternative to traditional kefir, is prepared by combining vegan milk with kefir grains. The fermentation process transforms the plant-based milk, imparting a thicker consistency and a mildly sour taste, characteristic of kefir.

In dairy-free milk, there is no lactose present, which is a natural sugar found in dairy milk. This absence requires adding a small amount of sugar to provide the kefir grains with the necessary nutrients for fermentation. Sometimes vegan milks contain sugars already so make sure to read the labels beforehand.



# DIFFERENT PLANT-BASED MILK USED FOR KEFIR FERMENTATION:

## COCONUT MILK:

*Taste:*

Creamy, slightly sweet, with a tropical coconut flavour.

*Consistency:*

Creamy and moderately thick, similar to traditional dairy kefir.

## ALMOND MILK:

*Taste:*

Nutty and slightly sweet, with a hint of almonds.

*Consistency:*

Smooth and slightly thinner compared to dairy kefir.

## SOY MILK:

*Taste:*

Mild, slightly nutty or bean-like, and slightly sweet.

*Consistency:*

Creamy and similar in thickness to dairy kefir.

## OAT MILK:

*Taste:*

Mild, slightly sweet, and oat-like.

*Consistency:*

Creamy, slightly thicker than cow's milk, but thinner than traditional dairy kefir.

## CASHEW MILK:

*Taste:*

Creamy, slightly sweet, and nutty.

*Consistency:*

Creamy and smooth, creating a thicker kefir compared to some other plant-based options.

## RICE MILK:

*Taste:*

Mild and slightly sweet, akin to rice.

*Consistency:*

Thinner compared to other plant-based kefirs, more liquid in texture.

## HEMP MILK:

*Taste:*

Earthy, slightly nutty, and mildly sweet.

*Consistency:*

Smooth and slightly thinner than dairy kefir.

## PEA MILK:

*Taste:*

Mild, slightly earthy, and creamy.

*Consistency:*

Creamy and similar in thickness to dairy kefir.

## HAZELNUT MILK:

*Taste:*

Rich, nutty, and slightly sweet.

*Consistency:*

Creamy and slightly thicker than cow's milk, but thinner than traditional dairy kefir.

## FLAXSEED MILK:

*Taste:*

Mild, slightly nutty, and earthy.

*Consistency:*

Thicker than rice milk but thinner compared to dairy kefir.

However, it's important to note that the consistency of vegan kefir is different from traditional dairy-based kefir. Vegan kefir tends to have a thinner consistency compared to its creamy dairy counterpart. To enhance thickness, you can blend the nuts used to make the milk into the mixture, resulting in a better consistency and texture for your vegan kefir. During the fermentation process, you may notice two layers in the jar due to the high water content in dairy-free milk. While this is normal, simply shake or stir the kefir before consuming it to mix the layers. If you prefer a thicker kefir, you can use only the top curded part and leave the whey below, achieving a creamy consistency.



Choosing the right dairy-free milk is vital to successful fermentation. Opt for quality organic milk without preservatives, added sugar, or other additives. Some brands may dilute their “milk” with water and sugar, which can hinder the fermentation process. If you find your grains becoming less active over time, a brief revitalization in regular dairy milk can reinvigorate them, ensuring continuous fermentation in dairy-free milk.

**Enjoy creating and savouring your vegan milk kefir, a delightful and nourishing addition to a plant-based diet!**

## NUTRITIONAL VALUE OF MILK KEFIR

Milk kefir is nutritionally dense, containing an abundance of vitamins, minerals, amino acids, and enzymes. It's an excellent source of calcium, protein, B vitamins (such as B12), and essential minerals like calcium, magnesium, vitamin K2, biotin, folate and phosphorus, contributing to overall health and vitality.

**Table: Nutritional value of kefir prepared with 3,5% fat**

	Nutritional value (average per 100 g of kefir) [g]	Average Energy value per 100 g of kefir [kJ] *
Water	87,6	/
Proteins	3,30	56
Fat	3,50	130
Carbohydrates	3,60	61
Organic acids	0,70	9
Ethanol	0,50	15
Minerals	0,80	/
<b>Total</b>	<b>100</b>	<b>270</b>

\* Recommended daily input is 7,500 kJ.

Source: <http://www.nijz.si/sl/kefir>

Kefir contains a variety of minerals, but it is a great source of calcium and magnesium, as well as phosphorus. These minerals help the body to utilize carbohydrates, fats and proteins for cell growth, maintenance and energy.

Moreover, the minerals in the diet are essential and important for building strong bones and teeth, blood, skin, hair, nerve function, muscle and metabolic processes. Therefore, they are key to the proper functioning of the body, as well as to growth and development. Usually, good soil provides 45% of minerals, but today this balance is disrupted by the use of fertilizers, chemicals, pesticides and mono-cropping.

Of course, there is no need to take in all minerals in the same amounts, but they are all essential. Usually, groupings of minerals are in relation to recommendations for daily intake. Thus, the minerals you need in bigger amounts are the minerals, macro-minerals or major minerals. The minerals that are needed less and in smaller amounts are known as micro-minerals or “trace elements”(2).

### **KEFIR CONTAINS THE FOLLOWING MINERALS (100ML):**

Calcium	210 mg	21 %
Magnesium	21 mg	5 %
Phosphorus	175 mg	20 %
Riboflavin	0,3 mg	19 %
Iron	0,18 mg	1 %
Potassium	263 mg	
Copper	0,02 mg	
Zinc	0,63 mg	

However, it is important to bear in mind that nutrients in kefir come from its harvest conditions. To name just a few – the quality of milk, the fermentation process, and the environment of its growth.

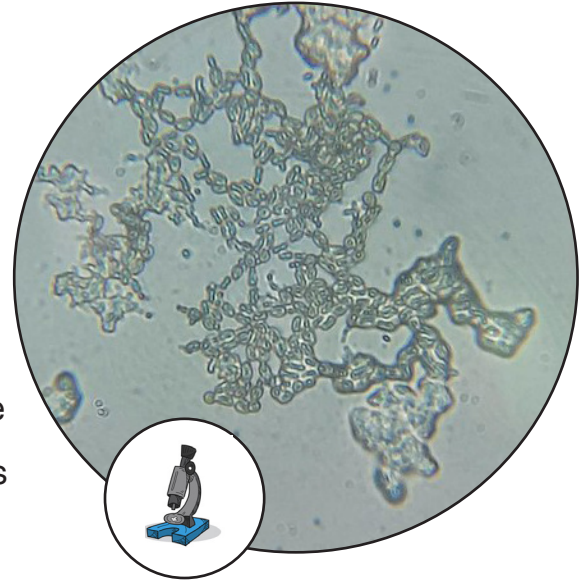
# HEALTH BENEFITS OF MILK KEFIR

## MICROORGANISMS IN KEFIR

Kefir, being rich in *Lactobacillus acidophilus* and *Bifidobacterium bifidum*, makes quite powerful probiotic foods.

## BACTERIA STRAINS IN KEFIR

Here are some facts and figures. The dosage of 100 ml of kefir contains up to 100 milliards (mostly) bacteria and here are some:



### LACTOBACILLUS

- *Lactobacillus 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*

### STREPTOCOCCUS/ LACTOCOCCUS

- *Streptococcus thermophilus*
- *St. paracitrovorus* ^
- *Lactococcus lactis* subsp. *lactis*
- *Lc. lactis* subsp. *lactis biovar. diacetylactis*
- *Lc. lactis* subsp. *cremoris*
- *Enterococcus durans*
- *Leuconostoc mesenteroides* subsp. *cremoris*
- *Leuc. mesenteroides* subsp. *mesenteroides*
- *Leuc. dextranicum* ^

### YEASTS

- *Dekkera anomala* t/ *Brettanomyces anomalus* a
- *Kluyveromyces marxianus* t/ *Candida kefir* a#
- *Pichia fermentans* t/ *C. firmetaria* a
- *Yarrowia lipolytica* t/ *C. lipolytica* a
- *Debaryomyces hansenii* t/ *C. famata* a#
- *Deb. [Schwanniomyces] occidentalis*
- *Issatchenkia orientalis* t/

- *C. krusei* a
- *Galactomyces geotrichum* t/ *Geotrichum candidum* a
- *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
- *Torulasporea delbrueckii* t
- \* *Zygosaccharomyces rouxii*

### ACETOBACTERIUM

- *Acetobacter aceti*
- *Acetobacter rasens*

## LIST OF POTENTIAL BENEFITS OF DRINKING MILK KEFIR:

- ✓ rich in vitamin B
- ✓ contains folic acid
- ✓ contains easily digested proteins
- ✓ full of good bacteria helping digestion
- ✓ contains antimicrobial strains of lactobacilli
- ✓ boosts immunity
- ✓ supports detoxification
- ✓ helps balance gut bacteria disturbed by antibiotics  
and can heal the skin after severe burns
- ✓ helps heal the inflammatory bowel disease
- ✓ helps fight allergies
- ✓ can be consumed by the lactose-intolerant
- ✓ lowers the blood pressure
- ✓ helps in building bone density
- ✓ can help with killing candida
- ✓ can help combat anaemia
- ✓ may help with the healing and nourishing of skin

One of the fascinating aspects of kefir is its dual role as both a probiotic food, teeming with beneficial microorganisms, and a prebiotic drink that nourishes and encourages the growth of these microorganisms. Probiotics, the beneficial bacteria and yeast present in kefir, play a vital role in achieving a balanced gut.

## GUT HEALTH AND DIGESTIVE WELLNESS

These microorganisms not only induce their growth and activity within our digestive system but also significantly contribute to the overall balance of our gut. Their presence strengthens the immune system, acting as guardians that protect our body from a multitude of critical conditions. Remarkably, approximately 75% of our immune system resides within the digestive system, where these “good” bacteria and fungi actively combat harmful microorganisms.



A healthy gut efficiently manages the elimination of toxic waste and maximizes the absorption of essential minerals and vitamins. However, challenges arise when the gut struggles to eliminate toxic waste or absorb vital nutrients, often due to poor dietary choices, such as excessive carbohydrate consumption. These decisions can lead to digestive issues, immune reactions, and even progress into chronic diseases.

To maintain this delicate balance and assist the digestive system in overcoming potential challenges, probiotics play a crucial role. They act as reinforcements, ensuring a healthy gut environment that thrives in processing waste effectively and absorbing the nutrients our body needs. Thus, incorporating kefir, a natural probiotic and prebiotic, into our diet can be a pivotal step in preserving gut health, bolstering the immune system, and ultimately enhancing our overall well-being.



## HEALING ALLERGIES AND INFLAMMATIONS

Inflammation is our body's natural response to protect against injuries or infections. However, too much inflammation can lead to health problems. Kefir, with its unique mix of beneficial microorganisms and compounds, seems to help control this inflammation. Some components in kefir have been linked to reducing inflammation, which is important for managing chronic conditions like arthritis or digestive issues.

Kefir's friendly bacteria may also assist in calming down our immune system's reactions to allergens, potentially providing relief to those dealing with allergies. Ultimately, by promoting a balanced immune response and potentially reducing inflammation, kefir contributes to a healthier body.



## MOOD AND MENTAL HEALTH

Mood and mental health are influenced by a complex interplay of factors in our body, and surprisingly, our gut plays a significant role. Milk kefir, a fermented dairy beverage rich in probiotics, has a potential link to our mental well-being. The live cultures in milk kefir may positively affect the gut-brain connection, influencing our mood and mental state. Probiotics, often referred to as “good” bacteria, can communicate with the brain through the gut-brain axis, which may impact neurotransmitters and chemicals in the brain associated with mood. While more research is needed, including milk kefir in our diet could be a simple step toward supporting our mental health alongside a balanced diet and healthy lifestyle.

## BONE HEALTH

Bone health is crucial, especially as we age, to prevent conditions like osteoporosis. Milk kefir, a fermented dairy drink, can be a boon for our bones. It's a great source of calcium, a key mineral essential for strong bones. What's even better is that the fermentation process of kefir helps in breaking down the lactose (milk sugar), making it easier for our bodies to absorb this calcium. Additionally, kefir provides other bone-friendly nutrients like magnesium and phosphorus, further supporting bone health. By incorporating milk kefir into our diet, we can nourish our bones and contribute to maintaining their strength and density.



## POTENTIAL ANTICANCER PROPERTIES

Milk kefir, a fermented dairy beverage, might have properties that could potentially help in the fight against cancer. While it's important to note that kefir is not a cure or treatment for cancer, studies have shown that certain components in kefir, such as peptides and probiotics, may have properties that could inhibit the growth of cancer cells. These components may also help in boosting the immune system, which plays a critical role in our body's defence against cancer. However, further research is needed to better understand the extent of these potential benefits and how they can be effectively utilized in preventing or managing cancer. As we learn more, incorporating milk kefir into our diet could be a part of a holistic approach to overall well-being.

# MORE REASONS TO FERMENT KEFIR AT HOME

Besides many health benefits, there are several other reasons that support the home preparation of kefir:

## **FRESHNESS AND QUALITY**

By making kefir at home, you have complete control over the ingredients, ensuring the use of fresh and organic ones. This guarantees a high-quality, unadulterated end product.

## **TAILORED TO YOUR TASTE**

Homemade kefir allows you to experiment with different kinds of milk and fermentation times, enabling you to tailor the taste, consistency, and flavour to suit your preferences perfectly.

## **COST-EFFECTIVE**

Pre-packaged kefir can be pricey, especially if consumed regularly. Making kefir at home proves to be a cost-effective alternative, saving money while producing a continuous supply of this nutritious beverage.

## **SUSTAINABILITY**

Preparing kefir at home promotes sustainability by reducing packaging waste associated with store-bought products. It's an eco-friendly choice that aligns with a sustainable lifestyle.



# MAKING KEFIR

Venturing into the world of making kefir opens up a delightful path towards crafting your own probiotic-rich, tangy, and creamy beverage. Whether you're a fermentation novice or a kitchen enthusiast seeking to explore new culinary territories, creating kefir at home is a rewarding and accessible undertaking.

## INGREDIENTS AND EQUIPMENT

High-quality ingredients and equipment is paramount in kefir-making to ensure the production of a safe, delicious, and nutritious beverage. Selecting organic milk and kefir grains is a key choice in kefir production.

## KEFIR GRAINS

Fermentation with kefir grains is a traditional natural process that produces milk kefir. Kefir grains are introduced in the milk for fermentation and can simply be removed 24 to 48 hours later. From there, we can use them to ferment a new batch of kefir. With enough care (and love) we can produce kefir indefinitely. Additionally, we can gift many happy relatives and friends with kefir grains as they grow and multiply. **Sharing is caring!**



## MILK

Organic milk, devoid of harmful chemicals and synthetic additives, ensures a pure and safe base for fermentation. It's nutritionally rich, offering kefir grains a superior foundation for crafting a more nutrient-dense kefir. The health benefits are amplified as the absence of additives aligns with a healthy diet, supporting overall well-being and bolstering the immune system.

Additionally, opting for organic milk promotes sustainability and ethical treatment of animals in farming practices. Furthermore, kefir grains thrive and adapt better when nourished with organic milk, resulting in a more robust fermentation process and a kefir product that is not only delicious but also maximizes probiotic potential. The Kefirko range consists of only quality Organic kefir cultures.



## QUALITY EQUIPMENT

When selecting home fermentation equipment, several critical factors should be considered to ensure a successful and enjoyable fermentation experience.



## MATERIALS

Opt for materials like glass, ceramic, or stainless steel, as they are non-reactive and won't introduce unwanted flavours or chemicals into your ferment. Glass jars are particularly popular for their inert nature, preserving the integrity and taste of the fermenting ingredients. Their transparency also allows you to monitor the fermentation progress without opening the jar.

## CAPACITY

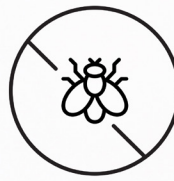
Choose equipment that suits the quantity of fermentables you plan to use. Is there a large family that will daily consume kefir or just one person? Milk kefir ferments in 24 hours which means you can have fresh kefir every day.

## PROPER SEALING

Kefir fermentation must be held in a jar with a lid. The lid serves as a protection against contaminants from the outside (other ferments, dust, bugs, etc.). On the other hand, gases that are produced during the fermentation may lead to bottle explosion so avoid air-tight seals.

## FUNCTIONAL DESIGN

Ease of cleaning and maintenance is another vital factor. Fermentation equipment should be easy to clean and sanitize before and after each use. Equipment with removable parts or wide openings facilitates thorough cleaning, preventing any residual buildup that could spoil future batches. Kefirko Kefir fermenter includes the strainer in the lid which makes kefir preparation easier and quicker.



# STEP-BY-STEP GUIDE FOR MILK KEFIR

There are only two ingredients needed to make delicious milk kefir:

- ✓ **Kefir grains**
- ✓ **Milk**

## HOW TO MEASURE RATIOS?

The ratio between kefir grains and milk in kefir-making is flexible and can vary based on personal preferences and desired fermentation outcomes. Decide on the ratio you want to use. Our recommended ratio is 1:100, meaning you use 3 grams of kefir grains to prepare 300 ml milk kefir which is considered a portion. If you want thicker, more sour kefir that also ferments faster you can even use 1:20 or 1:10 ratio.







## 1. COMBINE THE GRAINS AND MILK KEFIR

Put both in a jar and cover with a lid to enable fermentation.

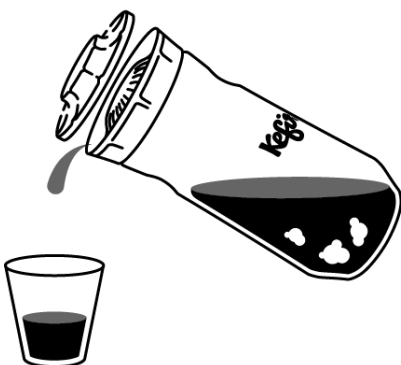
## 2. LET FERMENT FOR 24-48 HOURS.

Put the jar on the counter and let ferment at room temperature (20-24 C) for 24 hours. Sometimes it can ferment faster (high temperature, more kefir grains) and is ready in 12 hours and other times it can ferment longer - up to 48 hours.



## 3. STRAIN KEFIR AND FERMENT AGAIN.

Strain the kefir to separate it from the kefir grains. Leave the grains inside the jar and pour over fresh milk to ferment again.



## STORING THE KEFIR

Fermentation continues even after removing the grains, due to the live microorganisms present in the kefir drink. For optimal taste and freshness, it's advisable to consume the fresh kefir within a few days and store it in the fridge during that period. However, note that over time, kefir can turn excessively sour, making it less drinkable. Storing it in the low-temperature environment of the fridge slows down the fermentation process, allowing it to remain suitable for consumption for up to a week. Store it in glass bottles with caps. You may need to burp the bottle occasionally because of the gas accumulation.



## FERMENTATION TEMPERATURE & TIME

Fermentation occurs more quickly in warmer conditions. The ideal temperature for fermenting milk kefir is between 20 to 24 °C (68 to 75 °F). Time and temperature are closely linked; higher temperatures lead to shorter fermentation times. For example, in summer when room temperatures rise, fermentation can be completed in as little as 12 hours. Conversely, during colder winter months, fermentation might take longer. It's beneficial to maintain the optimal temperature range consistently throughout the year to prevent unnecessary stress on the kefir grains.



## FERMENTATION SCHEDULE

Kefir grains thrive on consistency. Maintaining a routine of continuous fermentation is optimal for their activity and well-being. After one cycle of primary fermentation (usually the first 24 hours), seamlessly transition into the next cycle by straining the kefir and “feeding” the grains with fresh milk for ongoing fermentation. Establishing a daily routine by choosing a specific time, such as in the morning, to strain the kefir and replenish the milk ensures a regular supply of fresh kefir to kickstart each day.

## SECOND FERMENTATION

Once you've strained the milk kefir, you have the option to consume it immediately or proceed with a second fermentation to enhance its flavours. Although not obligatory, numerous individuals find the taste of kefir after an additional 12-24 hours of fermentation preferable. Interestingly, research highlights that the concentration of microorganisms in kefir reaches its peak after this second fermentation stage. Importantly, the second fermentation takes place without the presence of kefir grains, allowing for the introduction of flavours such as fruits, spices, herbs, chocolate, and more to elevate the kefir's taste.

This second fermentation process offers another significant benefit—augmented nutrients and an increase in probiotic bacteria. While some individuals enjoy kefir primarily for its taste, many value it for its super-food-like healthy components, making the second fermentation an attractive choice for maximizing its nutritional potential.



## **In terms of nutrition, second fermentation can lead to the following enhancements in kefir:**

- ✓ **B Vitamins:** Milk kefir is a source of B vitamins 1 and 12, as well as biotin, aiding in B vitamin absorption. Second fermentation notably elevates the levels of these vitamins in kefir.
- ✓ **Calcium & Magnesium:** Initially, milk kefir contains about 20% of the recommended daily allowance (RDA) for calcium and 5% of the RDA for magnesium. Second fermentation amplifies the bioavailability of both these essential minerals.
- ✓ **Probiotic Bacteria:** Extended fermentation during the second stage contributes to a significant increase in the levels of probiotic bacteria within the kefir.
- ✓ **Reduced Lactose:** Second fermentations in milk kefir also decrease the levels of lactose present, offering a notable benefit for individuals with lactose intolerance or sensitivity.

## FLAVOURING / RECIPES

After separating the grains, you get fresh milk kefir which can be enjoyed plain or with added flavors. For a less tangy yet properly matured kefir, the second fermentation is key. During the initial fermentation, avoid flavouring to prevent any disruption caused by foreign substances. However, in the second fermentation without kefir grains, feel free to add prebiotic-rich foods. This addition is safe and beneficial as kefir, packed with probiotics, thrives on prebiotics—it's like fuel for probiotics!

You have a wide array of options limited only by your taste preferences. We highly encourage experimentation to find the perfect combinations for you and your family.

When adding flavours, ensure they can be easily removed after the second fermentation. Using a tea bag that can be removed later is helpful. Also, remember to mix the kefir occasionally.



# Here are some inspiring suggestions for flavouring your milk kefir:

## SWEET KEFIR FLAVORS

**Fruits:** apple, citrus (peels or slices), pineapple, cherries, strawberries, banana, passion fruit, guava, papaya, raspberries, blueberries, grapes, blackberries, mango, etc.

**Spices:** cinnamon (sticks can be removed, powdered form can be left in when refrigerated), nutmeg, cloves (in small quantities, especially with apple)

**Sweeteners:** honey, blackstrap molasses (use sparingly, it has a strong taste), dates or date paste, maple syrup, agave syrup (unprocessed gives a nice caramel flavour)

**Tea-Flavored Kefir** - For tea-flavoured kefir during the secondary ferment, use tea bags or place loose tea in cloth and tie with string. Avoid metal tea infusers. Herbal Teas you can use: mint, apple mint, lemon balm, honey-bush (subtle sweetness), green tea (for antioxidants rather than strong flavour), lavender, lemongrass, rooibos, chamomile, jasmine tea.

## SAVOURY KEFIR FLAVORS

### **Veggies & Herbs:**

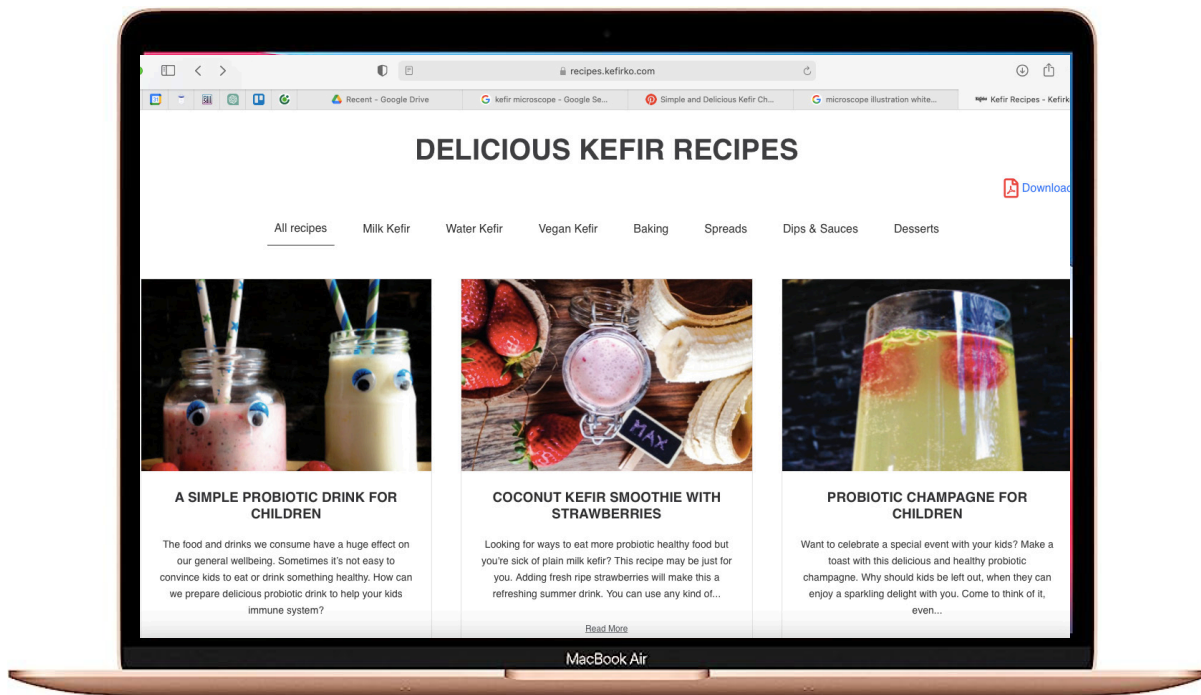
onion, garlic, chives, endives, basil, rosemary, thyme, parsley, ...

Feel free to get creative and find your unique and delightful kefir flavours!

# RECIPES

Visit the Kefirko recipes website for an abundance of kefir recipes and ideas on how to enjoy milk kefir every day.

<https://recipes.kefirko.com/kefir-recipes/>





## CONCLUSION

As we conclude this journey through the world of kefir, we can visualize how effortlessly this can become a part of our daily routines. Imagine a beautiful, functional kitchen—a hub of nourishment and family health. Picture a corner adorned with our Kefir fermenter, quietly and efficiently creating kefir. This isn't just a scene; it's a reality waiting to unfold. By adopting kefir into our lives, we unlock a realm of simplicity, taste, and vitality. Let's create a space where health meets aesthetics—a kitchen that mirrors our commitment to well-being. It's time to embrace kefir and its seamless integration into our daily lives.



# Kefirko

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