

There's Science in the Kitchen-

February 2024

Murat Doğan¹

¹Istanbul Gelişim University, Faculty of Fine Arts,
Gastronomy and Culinary Arts, Istanbul, Türkiye,
ORCID ID: 0000-0001-6391-4887,
mdogan@gelisim.edu.tr ,



[CITATION]

Doğan, M., (2024). Kefir is a source of healing.
Istanbul Gelişim University Faculty of Fine Arts E-Bulletin, (44), IGU Publications, Istanbul.

2024 February

Kefir: A Source of Healing

Assoc. Prof. Dr. Murat DOĞAN *

As you know, our society has faced numerous epidemics in recent years. Upper respiratory tract infections have been on the rise, and the new coronavirus variant JN1 is currently a significant concern. Epidemic diseases continue to impact us negatively, and this highlights the need for precautionary measures. Strengthening our immune system is undoubtedly one of the most critical steps we can take.

Fermented, functional, and probiotic foods and drinks stand out as some of the most effective immune boosters. Among them, kefir holds a special place. But does kefir truly benefit our health? How can we produce it? And how should we consume it? These are common questions.

First, let me emphasize this: calling kefir the yogurt of the twenty-first century would not be an exaggeration. When kefir is consumed widely, much like yogurt, it significantly strengthens our immune system due to its probiotic properties. Probiotics are beneficial bacteria that reside in our intestines, helping us by producing metabolites that support our health. Kefir is rich in these living microbes, and when we consume it, they colonize our intestines. These microbes not only protect us from harmful pathogens but also strengthen our immune system by delivering their healing metabolites to our body.

Let's take a brief look at kefir's history and how it spread. Kefir originated in the North Caucasus and spread worldwide in the early twentieth century. In the 1870s, Metchnikoff, a Russian scientist who later won the Nobel Prize for his research on the immune system, studied the longevity and health of the people in the Caucasus region. During his travels, he noticed that the locals consumed fermented dairy products like kefir as part of their daily diet. In his writings, he stated, "The beneficial microbes formed during the fermentation of certain foods and drinks settle in our intestines and strengthen our immune system."

Thanks to Metchnikoff's findings and the reasons I've outlined, kefir has become known for its ability to protect us from illnesses.

How to Make Kefir at Home

If you'd like to produce kefir at home, here's how:

1. If using packaged or bottled milk, let it come to room temperature before starting.

* İstanbul Gelişim Üniversitesi, Güzel Sanatlar Fakültesi, Gastronomi ve Mutfak Sanatları Bölümü, İstanbul, Türkiye, E-posta: mdogan@gelisim.edu.tr, ORCID Numarası: 0000-0001-6391-4887

2. For every liter of milk, you'll need 20 grams of kefir grains.
3. Place the kefir grains into a clean glass jar and pour the milk over them.
4. Close the lid and let the mixture ferment for 24 hours in a dark, room-temperature environment.
5. After 24 hours, you'll notice that the milk has thickened into kefir. Strain the kefir into another container and store it in the refrigerator. Be sure to consume it within two to three days.
6. Rinse the kefir grains under water, and if you plan to ferment another batch, place them back into a clean jar with fresh milk.

Common Mistakes in Kefir Preparation

When making kefir at home, avoid using metal utensils, as they can damage the grains. Instead, use wooden or plastic tools.

How to Store Kefir Grains

If you're not using kefir grains immediately:

- For short-term storage (up to one or two months): Rinse the grains thoroughly, place them in a jar of clean water, and store them in the refrigerator. Note that the grains may weaken during storage. To reactivate them, ferment them in milk for two days, discard the resulting kefir, and then ferment them again.
- For long-term storage (more than two or three months): Freeze the grains in an appropriate container. They can be reactivated by fermenting them in milk after thawing.

High-quality kefir grains have an elastic structure and are not sticky or soft. With proper care, these grains can last for years. As they multiply, you can even share them with friends and loved ones.

Stay healthy!

References

- Alzuhairi, S., & Doğan, M. (2021). Fonksiyonel gıdaların gastronomideki önemi. ART/icle: Sanat ve Tasarım Dergisi, 1(2), 249-267.
- Doğan, M. (2011). Probiyotik bakterilerin biyokimyasal etki mekanizması ve alerji üzerine etkilerinin meta analiz araştırması (Master's thesis, Fen Bilimleri Enstitüsü).
- Doğan, M. (2012). Probiyotik bakterilerin gastrointestinal sistemdeki etki mekanizması. Gıda Teknolojileri Elektronik Dergisi, 7(1), 20-27.
- Doğan, M. (2017). Bazı gıdalardan izole edilen bakterilerin probiyotik özelliklerinin araştırılması.

Doğan, M., & Ay, M. (2021). Evaluation of the probiotic potential of *Pediococcus* strains from fermented dairy product kefir. *Czech Journal of Food Sciences*.

Dogan, M., & Ozpinar, H. (2017). Investigation of probiotic features of bacteria isolated from some food products. *Kafkas Üniversitesi Veteriner Fakültesi Dergisi*, 23(4).

Doğan, M., & Tekiner, İ. H. (2019). Assessment of probiotic properties of lactic acid bacteria from traditional sourdoughs for bread-making in Turkey against some gut conditions. *Journal of Applied Food Technology*.

Doğan, M., Tekiner, İ. H., & DemirkeseBıçak, H. (2019). Probiotics from food products and gastrointestinal health. In *Dietary interventions in gastrointestinal diseases* (pp. 169-177). Academic Press.