A QUICK GUIDE TO KEFIR

Kefir is a fermented food traditionally made by fermenting milk using kefir grains.

KEFIR

What is kefir?

Kefir

Typical Culture Composition: made using grains containing a

specific and complex mixture of lactic acid- and acetic acid-producing bacteria, and lactose-fermenting and non-fermenting yeasts, which work together symbiotically¹

Kefir is unique among fermented

Typical Matrix:

foods because it is composed of a mass of distinctive bacteria and yeasts embedded in a matrix of protein and carbohydrate³

Ancient Food: Has been around for thousands of years but with no single origin

Versatile Base:

Kefir is defined as fermented milk (typically cow's milk, but other milks can be used). Other kefir-style products may exist, for example using coconut water as a base, however these differ significantly in composition and taste.

Typical Culture Composition:

made by fermenting milk with two specific bacterial strains - Streptococcus thermophilus and Lactobacillus

Yogurt

Bulgaricus^{2.} Other live culture strains may then also be added for functional or sensory purposes.

> Yogurt has been consumed for thousands of years with origins tracing back to Central Asia

Ancient Food:

YOGURT

There are many types of yogurt, including Greek yogurt, stirred yogurt, Skyr and drinkable yogurt, each with a unique composition, texture and taste

Variety of types:

KEFIR MADE WITH AUTHENTIC GRAINS

Types of Kefir

Homemade kefir, as well as Kefir made by certain commercial manufacturers use kefir grains which are added to milk. These grains look like small florets of cauliflower and are sometimes retrieved for use

in future batches. Kefir in this way typically contains a wide mix of bacterial cultures and yeasts1. Activia Kefir is made using authentic kefir grains. 1 Acquire Kefir Grains 2 Combine Grains and Milk **3** Fermentation 4 Bottle and package















this way may contain a lower diversity of cultures than those produced using kefir grains1. 1 Isolated live culture strains, usually in 2 Combine Powder and Milk **3** Fermentation 4 Bottle/package

Rather than using the kefir grains themselves, some kefir is made using cultures isolated from kefir grains in addition to other cultures containing freeze-dried lactic acid bacteria and/or yeasts. Kefir produced in











Yeasts

e.g. debaryomyces hansenii:



MILK BACTERIA

KEFIR COMPOSITION





Feed on lactose, producing lactic acid

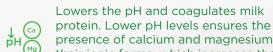
which gives kefir a unique tangy flavour¹





Different types of yeast and bacteria can impact the fermentation process in many ways. The unique kefir

YEAST



presence of calcium and magnesium in their ionic forms, which increases the rate of absorption4

Influences B vitamin concentrations⁵



The fermentation of the sugars produces carbon dioxide and ethanol, which contributes to the slight effervescence

and flavour of kefir⁹

Some feed on lactose8

Some feed on other sugars



and activity of microbes1 Also produce vitamins such as B vitamins during fermentation¹

Some work symbiotically with lactose acid bacteria to help create an

environment that supports the growth



veast species

Origin

Main ingredients

Contains live bacteria

Contains yeast

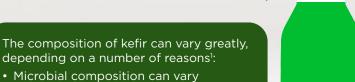
No. strains

Texture

• Milk type used (skimmed, semi-skimmed or whole milk)

duration of production)

LIVE CULTURES K



depending on the region they are from, with different dominant bacterial and

Culturing conditions (like temperature,

KEFIR



amino acids⁶

PROTEIN

CALCIUM

Kefir, like yogurt, is a nutritionally dense food. A good source of protein and a

source of calcium, as well as live cultures⁶.

can vary depending on whether skimmed, semi-skimmed or whole milk are used. Dairy protein will provide all essential

KEFIR

Caucasus region

DIFFERENCES BETWEEN YOGURT AND KEFIR

microorganisms added. This produces slightly different end products, which often differ in taste, texture and nutritional composition.



Milk, kefir grains and lactose-fermenting and non-fermenting yeasts (or isolated kefir live cultures and yeasts) Variable, but often 10 or more



Similar to buttermilk, thinner in texture though may be strained for a spoonable texture

To find out more information on Activia yogurts and Activia kefir, click the link below

ACTIVIA PRODUCTS -

KEFIR HEALTH BENEFITS Read our blog on The Health Benefits of Fermented Dairy to find out more on kefir health benefits

1. Rosa DD, Dias MMS, Grześkowiak ŁM, et al. Milk kefir: nutritional, microbiological and health benefits. Nutr Res Rev. 2017; 30(1): 82-96

Food and Agriculture Organisation of the United Nations. Codex Alimentarius. Standard for Fermented Milks. 2003 (updated 2022); Accessed online: https://www.fao.org/fao-who codexalimentarius/en/ (December 2024). 3. Farnworth ER, Mainville I. Kefir: a fermented milk product. Handbook of Fermented Functional Foods. 2003; 2: 89-127. 4. Zhang T, Geng S. Cheng T, et al. From the past to the future: Fermented milks and their health effects against human diseases. Food Front. 2023; 4(4): 1747-1777. 5. LeBlanc JG, Laiño JE, del Valle MJ, et al. B-Group vitamin production by lactic acid bacteria-current knowledge and potential applications. J Appl Microbiol. 2011; 111(6): 1297-1309.

^{6.} Azizi NF, Kumar MR, Yeap SK, et al. Kefir and Its Biological Activities. Foods. 2021 May 27;10(6):1210. doi: 10.3390/foods10061210. PMID: 34071977; PMCID: PMC822649 7. Public Health England. McCance and Widdowson's The Composition of Foods Integrated Dataset 2021 [Internet]. London: Public Health England; 2021 [cited 24 Jan 2025]. Available from: https://www.gov.uk/government/publications/composition-of-foods-integrated-dataset-cofid

^{8.} Kurniawati M, Nurliyani N, Budhijanto W, Widodo W. Isolation and Identification of Lactose-Degrading Yeasts and Characterisation of Their Fermentation-Related Ability to Produce Ethanol. Fermentation. 2022; 8(4):183. 9. Saygili D, Yerlikaya O, Akpinar A. The effect of using different yeast species on the composition of carbohydrates and volatile aroma compounds in kefir drinks. Food Bioscience. 2023 Aug 1:54:102867.