

KEFIR

An extraordinary whole living food for the entire family

Kefir is a milk culture that originated in the Northern Caucasus Mountains hundreds of years ago. Kefir is similar to yoghurt in that it is a cultured milk but the kefir curd is much smaller, so it can cover a larger area of the intestines, and the strains of beneficial micro-organisms present are different from yoghurt. Kefir will recolonize the bowel with friendly intestinal bacteria whereas yoghurt is not able to do this.

Typical strains of probiotic microorganisms found in yoghurt are *Lactobacillus Acidophilus*, *Bulgaricus* and perhaps either *Bifido* or *Longum*. Common strains found in kefir are: *Sacc.cerevisiae*, *Sacc. delbreuckii*, *Sacc. exiguous*, *Sacc. florenti nus*, *Sacc. Globosus*, *Sacc. Kefir*, *Sacc. Unisporus* and *Saccharomyces spp.*, *Kluyveromyces bulgaricus*, *Kl.fragilis*, *Kl. Marxianus ssp. Bulgaricus ssp. Marxianus*, *Totulaspora delbreuckii*, *Candida kefir*, *Candida (Torula) kefir*, *C. pseudotropicalis var. lactosa*, *Candida spp.*, *Cryptococcus kefir*, *Mycotorula kefir*, *My. Lactis*, *My. Lactosa*, *Torulopsis bolmii*, *Tp. Kefyr* and *Torula kefir*. As you can see, kefir has several friendly bacteria. In Russia all babies are fed kefir from the age of six months. It is important to note that *Lactobacillus Acidophilus* is only developed in the human digestive tract at around age 5 or 5½ years. Feeding yoghurt to a young child therefore would be difficult to digest and mucous forming. Kefir, however, does not contain *Lac. Acidophilus* at all and is highly recommended for young children.

Bifidobacteria, the friendly bacteria of the large intestine in adult humans, decline with age or chronic conditions. This is a good reason to regularly provide the system with friendly bacteria. Other culprits that cause a decline are: steroids, disturbed gastric function, disturbed digestive tract motility (diarrhea, constipation), suffering from altered acidity due to aging, pernicious anemia, diverticulosis, regional enteritis (or Crohn's), x-rays, other radiation exposure, cirrhosis of the liver, immune deficiencies and other chronic disease states. Factors that can cause a decline in bifidos in children, include sudden dietary changes, the use of antibiotics, infections, vaccinations and even sudden weather changes.

A healthy bifido presence can be supported by eating more vegetables and less meat as the consumption of much meat tends to depopulate the bifidos. Drinking and eating all kinds of lactic acid-fermented foods, milk products (kefir), vegetables (e.g. sauerkraut), teas (e.g. kombucha) etc. help to reestablish the bifidos. The total weight of the many billions of bacteria living in our intestines is 3½ lbs.

How to make kefir?

You could make kefir by using some ready made kefir as a starter or you can buy kefir grains and activate them to culture milk to a nice thick consistency. The temperature at which kefir is cultured will change the taste and texture. Whilst it is written that kefir will culture at temperatures as low as 21°, you will get a more full-bodied, less tart-tasting kefir using a temperature around 80°.

First, we'll talk about preparing the milk. You can use raw whole milk, pasteurized whole milk or homogenized whole milk – not ultra pasteurized milk. At low heat, bring the milk to almost boiling (starting to bubble), stirring occasionally. Remove from the heat and cool till the milk is hot to the touch but does not burn your hand. The reason for heating the milk is to eliminate the competing microorganisms.

If you have some home-made kefir to use as a starter, simply put the kefir (½ to 1 cup) into a wide-mouth glass mason jar, add the warm milk, stir, seal the jar by screwing on the lid, wrap tightly in towels, covering the top and sides of the jar and preferably place it on the bottom shelf of a cupboard in the kitchen above a counter. On the counter beneath the shelf have a regular lamp burning for twelve hours to keep the kefir at a "cozy" temperature. It usually takes no longer than 12 hours under these conditions to make thick, tasty kefir.

If you use kefir grains, place the grains into a cloth teabag (which you need to make) or other suitable non-metallic "floater" that will enable the grains to be suspended in the milk with little holes small enough so the milk will reach the grains but the grains will not be lost in the milk. The kefir grains are in 'sleep mode'. They need to be re-activated.

On the 1st day, using 1 cup of milk, suspend the grains in the milk for 24 hours. On the 2nd day, discard the milk and suspend the grains in a fresh cup of milk. On the 3rd day, repeat the procedure. After the 3rd or 4th day, the milk will be properly cultured. You may now eat your kefir. From this point forward, as the grains become more and more activated, each time that you make kefir, increase the amount of milk, e.g. from 250 ml to 400 ml, to 600 ml, to 800 ml, then a quart. One sachet of kefir grains will ultimately make 1 quart of kefir. After you've been making kefir for a few months and your culture is matured, you may choose to seal your kefir grains and store them in the freezer. Now use some of your ready made kefir as a starter for future batches of kefir, as explained above. ENJOY!