

Maltodextrin in Yogourmet® starters' new formula

Yogurt and kefir are part of a healthy lifestyle as highly nutritive food providing vitamins, minerals, proteins, probiotics and live active bacteria¹. Yogurt and kefir produced with our Yogourmet® starters provide 100 billion live and active bacteria per 100g serving, 100 times more live bacteria than the Codex standard for yogurt¹.

Studies and reviews explain the benefits associated with the consumption of yogurt daily such as risk reduction of chronic and metabolic disease, risk reduction of colorectal cancer, enhancement of the immune response and lower risk of diabetes (specific to postmenopausal women)^{1,2}.

As part of their disease management, people suffering from Crohn's disease must watch their diet to limit flare-ups provoking an inflammatory response. Certain foods could trigger and/or worsen symptoms during a flare-up. There are early animal studies suggesting that maltodextrin could be a risk factor for chronic inflammatory diseases such as Crohn's disease^{3,4}.

Maltodextrin is a food/dietary additive produced from vegetable starch and considered Generally Recognized As Safe (GRAS) by the US Food and Drug Administration^{4,5}. It is part of the routine diet of 98.6% of US consumers⁴ and found as a component in a large majority of commercial nutrition formulas shown to be efficient for Crohn's disease management by human randomised controlled trials (RCT)⁶. Additionally, a study revealed that there was no difference in the remission rate for people taking the formulas with and without maltodextrin⁶. Such findings greatly challenge the *in vitro* and animals' experiments implying that maltodextrin could promote intestinal inflammation in people suffering from Crohn's disease^{3,4}.

The maltodextrin found in our Yogourmet® starters is from maize origin, of high quality, and with strict microbial specifications. Keep in mind that the maltodextrin content in 1 sachet is less than 1.5 g for Yogourmet® Yogurt and Yogourmet® Kefir starters. Once in one liter of yogurt or kefir, its concentration is therefore less than 1.5 mg/g or 0.15%, (0.15 g per 100 g serving). To confirm, a certified laboratory tested for the content of maltodextrin in 24-hour-fermented yogurt and kefir made with Yogourmet® starters and the maltodextrin was undetectable⁷. For reference, in the animal studies⁴, the maltodextrin concentration shown to exacerbate provoked intestinal inflammation was 5% in all drinking water ingested over a 45-day period. That is the equivalent of 130 g of maltodextrin daily intake for a human, based on a minimum average of 2.6 liters of beverage per day, compared to 0.15 g per 100 g serving of yogurt or kefir made with Yogourmet® starters.

Considering all the health benefits from consuming yogurt and kefir on a regular basis, the fact that the maltodextrin added to the yogurt or kefir by the Yogourmet® starters is undetectable, and that maltodextrin has no incidence for people suffering from Crohn's disease as shown by some of the latest clinical trials, the presence of maltodextrin in our sachet should not be of concern for people suffering from Crohn's disease.

References

1. El-Abbad N.H., Dao M.C., Meydani S.N. 2014. Yogurt: role in healthy and active aging. *Am J Clin Nutr* 2014; 99(supp):1263S-70S.
2. Desobry-Banon S., Vetier N., Hardy J. 1999. Health benefits of yogurt consumption. A review. *International Journal of Food Properties*, 2:1, 1-12.
3. Laudisi F., Di Fusco D., Dinallo V., Stolfi C., Di Grazia A., Marafini I., Colantoni A., Ortenzi A., Alteri C., Guerrieri F., Mavilio M., Ceccherini-Silberstein F., Federici M., MacDonald T.T., Monteleone I., Monteleone G. 2019. The food additive maltodextrin promotes endoplasmic reticulum stress-driven mucus depletion and exacerbates intestinal inflammation. *Cell Mol. Gastroenterol Hepatol* 2019; 7:457-473.
4. Nickerson K.P., Chanin R., McDonald C. 2015. Deregulation of intestinal anti-microbial defense by the dietary additive, maltodextrin. *Gut Microbes* 6(1):78-83.
5. FDA. E-CFR. 2021. Direct food substances affirmed as generally recognized as safe. 21CFR184.1444. Current as of July 8 2021.
6. Logan M., Gkikas K., Svolos V., et al. 2020. Analysis of 61 exclusive enteral nutrition formulas used in the management of active Crohn's disease – new insights onto disease triggers. *Aliment. Pharmacol. Ther.* 2020; 51:935-947.
7. Eurofins Analytics France certified ISO/IEC 17025:2017. Reference HECOL-8, LOD 0.3%.