

Use of yogurt in pediatric cancer patients

Uso de yogur en pacientes pediátricos con cáncer

Çaksen Hüseyin

<https://orcid.org/0000-0002-8992-4386>
Necmettin Erbakan University, Faculty of Medicine, Department of Pediatrics, Divisions of Pediatric Neurology and Genetics and Behavioral-Developmental Pediatrics, Meram, Konya, Türkiye
huseyincaksen@hotmail.com

Correspondencia:

Hüseyin Çaksen
huseyincaksen@hotmail.com

Recibido: 10 de febrero 2026

Aprobado para revisión: 11 de abril 2026

Aceptado para publicación: 15 de mayo 2026

DOI: <https://doi.org/10.29166/rfcmq.v51i2.9662>

Dear editor:

Cancer, a major health issue, is one of the most frequent causes of morbidity and mortality worldwide. There is evidence that diet and nutrition are modifiable risk factors for several cancers¹. While eating too much food is one of the main risk factors for cancer, eating a healthy and balanced diet can reduce the risk of cancer. Many studies have shown that certain dietary components or nutrients are associated with either an increased or decreased risk of cancer¹. Yogurt is a popular fermented dairy product produced by lactic acid bacteria, including *Streptococcus thermophilus* and *Lactobacillus delbrueckii* subsp. *bulgaricus* and widely consumed by people². Consumption of yogurt and other fermented products is associated with improved health outcomes. A causal relationship exists between lactose digestion and tolerance and yogurt consumption, and consistent associations exist between fermented milk consumption and reduced risk of cancer and type 2 diabetes, improved weight maintenance, and improved cardiovascular, bone, and gastrointestinal health³. Herein, we discuss use of yogurt, a powerful and popular probiotic, in pediatric cancer patients to attract attention to that yogurt reduces risk of cancer.

Yogurt has a potential role in the prevention and management of cancer because it contains high-quality protein, bioactive molecules and vitamins, as well as nutrient-rich and probiotic content⁴. Table 1 shows action mechanisms of probiotics such as yogurt in cancer prevention and therapy². Meta-analyses showed that yogurt consumption was associated with reduced risk of lung cancer⁵, colorectal cancer^{2,4,6}, bladder cancer⁴, prostate cancer⁶, and breast cancer³ in adult cancer patients. A meta-analysis suggested that dairy product consumption, but not yogurt, may increase the risk of non-Hodgkin lymphoma⁷. Yogurt consumption was associated with lower hepatocellular carcinoma risk, and these associations remained within participants who were free of hepatitis B virus and hepatitis C virus infections⁸. Kawakita et al.⁹ found a significant inverse association between yogurt intake and

Rev. de la Fac. de Cienc. Médicas (Quito)
Volumen 51, Número 2, Año 2026
e-ISSN: 2737-6141
Periodicidad trianual

Cómo citar este artículo: Çaksen H. Use of yogurt in pediatric cancer patients. Rev Fac Cien Med [Internet]. 2026may [cited]; 51(2):6-8. Available from: <https://doi.org/10.29166/rfcmq.v51i2.9662>



upper aerodigestive tract (oral cavity, pharynx, larynx, and esophagus) cancer risk. Although many studies have shown that yogurt reduced the risk of some cancers in adults, no study has been reported on this subject in children in the literature according to the best of our knowledge. Only one study has been reported regarding the use of yogurt in children with cancer in the literature. Pettoello-Mantovani et al.¹⁰ noted the beneficial effect of yogurt supplemented diet in lactose-malabsorbent children receiving cancer chemotherapy. In conclusion, the studies have shown that yogurt, a very cheap, but very powerful probiotic, reduces the risk of non-Hodgkin lymphoma, lung cancer, colorectal, bladder,

prostate, breast and upper aerodigestive tract cancer and hepatocellular carcinoma in adult patients. Based on the literature data, we think that yogurt may also decrease the risk of some cancers in childhood. Furthermore, yogurt can also be beneficial in preventing and treating nutritional problems such as malnutrition, gastroenteritis, and lactose malabsorption, which are common in children receiving cancer chemotherapy. We recommend that observational and qualitative studies should be performed in order to determine the effects of yogurt in children with cancer. These studies will guide healthcare professionals in clinical practices and fill the gap in the literature.

Table 1. Action mechanisms of probiotics such as yogurt in cancer prevention and therapy²

Modification of the intestinal microbiota composition

Metabolic activity of the intestinal microbiota

Production of compounds with anticarcinogenic activity, such as short-chain fatty acids and conjugated linoleic acid

Inhibition of cell proliferation and induction apoptosis in cancer cells

Influence on other mutagenic and carcinogenic factors

Binding and degradation of carcinogenic compounds present in the intestinal lumen

Immunomodulation

Improvement of the intestinal barrier

References

1. Papadimitriou N, Markozannes G, Kannelopoulou A, Critselis E, Alhardan S, Karafousia V, et al. An umbrella review of the evidence associating diet and cancer risk at 11 anatomical sites. *Nat Commun.* 2021; 12(1):4579.
2. Śliżewska K, Markowiak-Kopeć P, Śliżewska W. The role of probiotics in cancer prevention. *Cancers (Basel).* 2020; 13(1):20.
3. Savaiano DA, Hutkins RW. Yogurt, cultured fermented milk, and health: a systematic review. *Nutr Rev.* 2021;79(5):599-614.
4. Zhang K, Dai H, Liang W, Zhang L, Deng Z. Fermented dairy foods intake and risk of cancer. *Int J Cancer.* 2019; 144(9):2099-108.
5. Yang JJ, Yu D, Xiang YB, Blot W, White E, Robien K, et al. Association of dietary fiber and

-
- yogurt consumption with lung cancer risk: a pooled analysis. *JAMA Oncol.* 2020; 6(2):e194107.
6. Ubago-Guisado E, Rodríguez-Barranco M, Ching-López A, Petrova D, Molina-Montes E, Amiano P, et al. Evidence update on the relationship between diet and the most common cancers from the European Prospective Investigation into Cancer and Nutrition (EPIC) study: a systematic review. *Nutrients.* 2021; 13(10):3582.
 7. Wang J, Li X, Zhang D. Dairy product consumption and risk of non-Hodgkin lymphoma: a meta-analysis. *Nutrients.* 2016;8(3):120.
 8. Yang WS, Zeng XF, Liu ZN, Zhao QH, Tan YT, Gao J, et al. Diet and liver cancer risk: a narrative review of epidemiological evidence. *Br J Nutr.* 2020; 124(3):330-40.
 9. Kawakita D, Sato F, Hosono S, Ito H, Oze I, Watanabe M, et al. Inverse association between yoghurt intake and upper aerodigestive tract cancer risk in a Japanese population. *Eur J Cancer Prev.* 2012; 21(5):453-9.
 10. Pettoello-Mantovani M, Guandalini S, diMartino L, Corvino C, Indolfi P, Casale F, et al. Prospective study of lactose absorption during cancer chemotherapy: feasibility of a yogurt-supplemented diet in lactose malabsorbers. *J Pediatr Gastroenterol Nutr.* 1995; 20(2):189-95.