

# Comparison of B12 levels in breast milk and formula-fed infants until childhood

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## Introduction

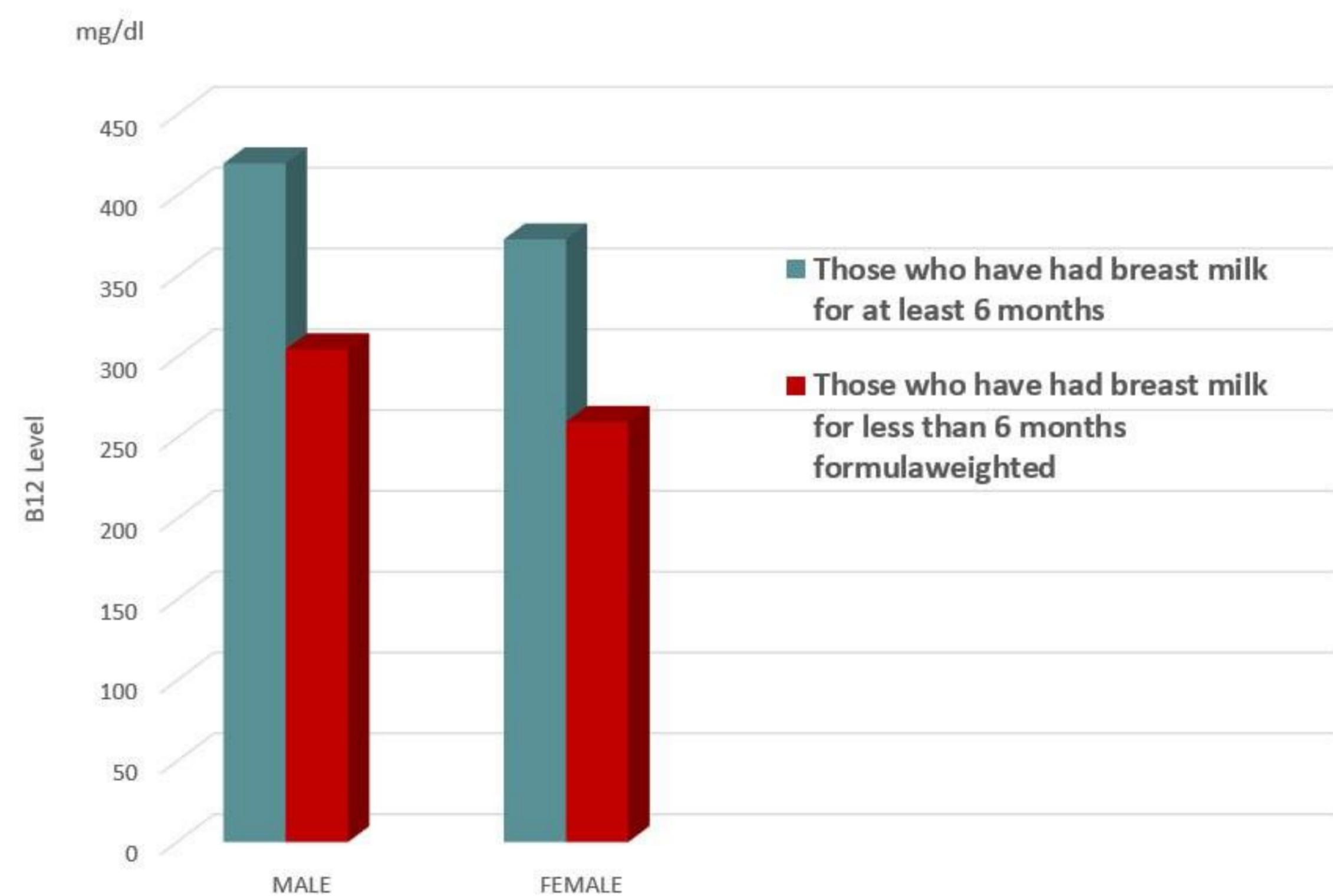
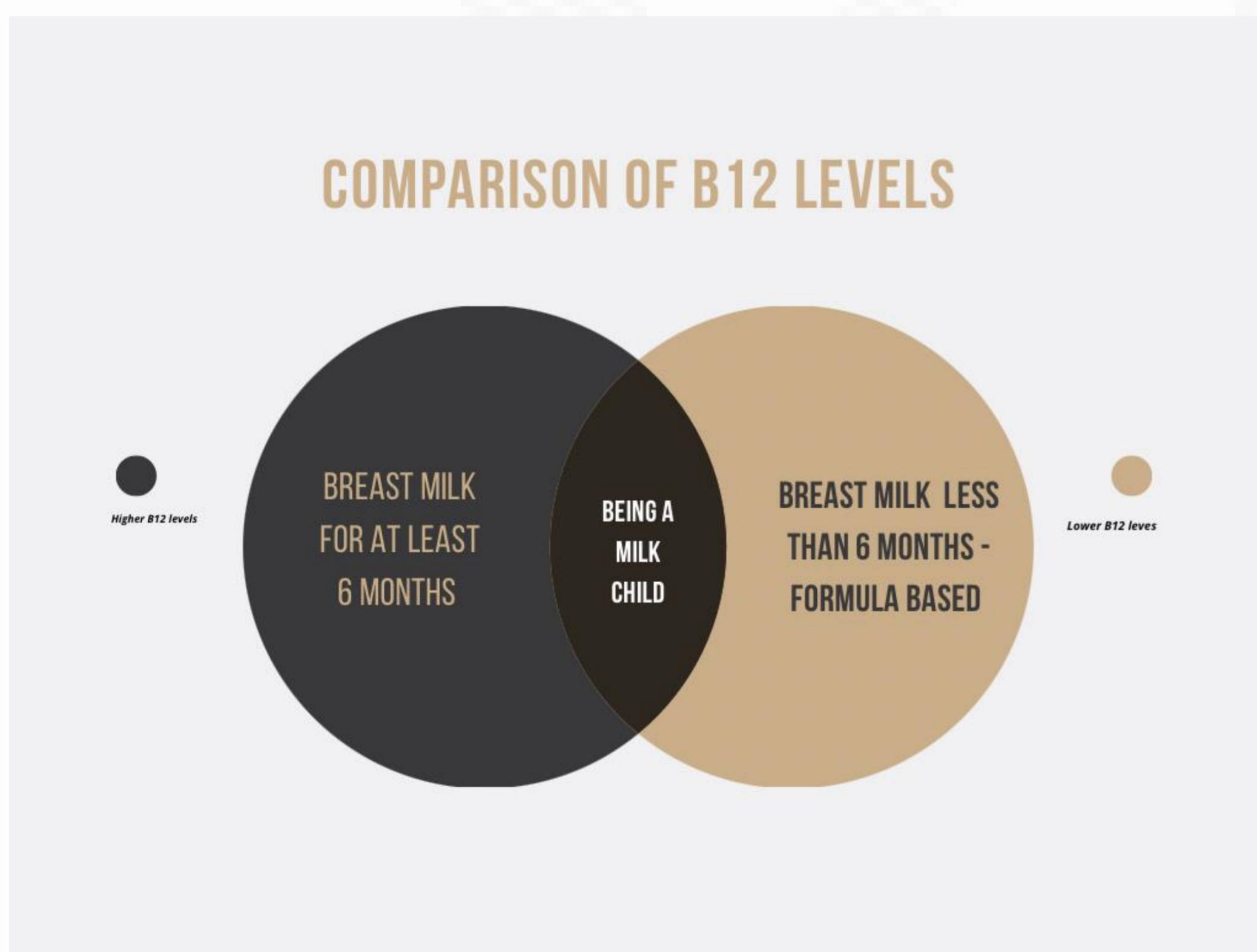
Vitamin B12 deficiency often occurs in the diet of low animal food consumption, especially in the vegetarian diet that has become popular in recent years. The period of pregnancy and lactation has been explained, and with some mechanisms still being investigated, B12 vitamins are missing in babies. Vitamin B12 plays a critical role for underage milkchildren whose brain development has not yet been completed and myelination continues, leaving permanent neurodevelopmental damage to their deficiency. Therefore, it is essential to investigate and work on this issue.

## Methods

In our retrospective study, blood samples taken between these years will be used from patients between the ages of 0-2 (during the period of milk childhood) who applied to the General Pediatric Policies at Bezmialem Foundation University Faculty of Medicine between 2019-2021. The blood samples will be checked at B12 levels. The difference between averages (<https://doi.org/10.1093/advances/nmx019>, B12), based on previous studies 67. When standard deviations are taken as 162 and 140 respectively, the sample size is  $n_1 = n_2 = 82$   $n = 164$  people for 95% confidence level and 80% power at 0.05 meaningful levels.

## Results

Those who received breast milk for less than 6 months also called Group 1 have a total of 82 babies. Those who have received breast milk for more than 6 months are also composed of 82 people. Both groups have 41 girls, 41 boys. Statistical results show that Group 2 B12 values are significantly higher than the Group 1 B12 values ( $p < 0,001$ ). There was no statistically significant relationship between B12 values in relation to gender ( $p = 0,52$ ).



## Conclusion:

The results of the present study show that the B12 levels of babies who have taken breast milk longer, regardless of male or female babies, have been recorded higher. Our results should be confirmed with further experimental and clinical studies.

## References:

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