

Aim: The main objective of this pilot randomised clinical study was to determine the effects of vitamin and mineral fortified commercial Turkish bread on some blood parameters of healthy adults. **Subjects and Methods:** Twenty-nine healthy adults were participated into the study and divided into two groups: trial (n=16) and control (n=13). Trial group consumed fortified bread (176 g/day) as part of their usual diet for 73 days while control group did not change their diet. Biochemical parameters were analysed in blood samples at the beginning and end of the intervention period. **Results:** In the trial group, significant increase was determined in blood levels of vitamins B1, B2, B6, B12 and C and minerals iron, calcium, zinc at the end of the intervention period ($p < 0.05$). Change in serum folic acid levels was not significant. Daily consumption of vitamin and mineral fortified commercial Turkish bread led to remarkable increase in the blood vitamin and mineral concentrations, apart from folic acid. **Conclusion:** Although this pilot study has several limitations in terms of study design, the study results indicate a need for the long term and large scale randomised studies for a clear definition of the effects of fortified bread in daily nutrition. **Keywords:** Food fortification, micronutrients, clinical research, bread