

## Abstract

A randomized, double-blind, placebo-controlled iron supplementation trial was conducted in Kenya to examine the effect of iron supplements on appetite and growth in 87 primary school children. Sustained-release ferrous sulfate (150 mg) or placebo tablets were provided daily at school for 14 wk. Prior to tablet administration, baseline anthropometry, iron nutritional status (hemoglobin and serum ferritin), parasitic infections and clinical indicators of morbidity were measured. A baseline appetite test was conducted twice on each child by quantitatively measuring the ad libitum consumption of a midmorning snack. In addition, each child was asked for a subjective assessment of his or her appetite. Follow-up exams and appetite tests were identical to those at baseline. Findings indicated that provision of iron supplements resulted in improved growth and improved appetite (in terms of both energy intake of the snack and child report of appetite) as compared with children receiving the placebo. The increased energy intake from the snack was 10% of the daily estimated energy intake for children of this same age group living elsewhere in Kenya. Further research into the underlying physiological mechanisms may shed light on the relationship between iron nutritional status and appetite.