Commentary to the letter to the editor

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Evidence that magnesium is involved in body weight regulation is lacking but several observations document the effect of magnesium deficiency in the development of insulin resistance in animal models. Of particular significance are the observations of the aggravating effect of magnesium deficiency on metabolic syndrome in fructose fed rats and the proinflammatory response of magnesium deficiency [1, 2]. It has been shown that hyperinsulinemia in obese Zucker rats is accompanied by magnesium depletion [3]. In man there is a strong association between magnesium and other beneficial nutrients in the prevention of metabolic syndrome [4], hence the difficulty in investigating the metabolic consequences of magnesium deficiency and the controversy concerning the role of dietary magnesium in insulin sensitivity.

References