

## **Almonds and postprandial glycemia – a dose-response study.**

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### **Abstract:**

Almonds, together with other nuts, reduce serum cholesterol levels and may reduce the risk of coronary heart disease. There is much current interest in the relation of coronary heart disease to postprandial events. We have therefore assessed the effects of varying amounts of almonds on the postprandial blood glucose response to a carbohydrate meal. Our aim was to assess the effect of adding almonds to a bread meal. Nine healthy volunteers (2 women, 7 men; mean age, 27.8 years; mean body mass index, 22.9 kg/m<sup>2</sup>) were randomly fed with 3 test meals and 2 white bread control meals on separate days. Subjects were fed the meals after a 10- to 12-hour overnight fast. Each meal contained 50 g of available carbohydrate from white bread eaten alone or with 30, 60, or 90 g (~1, 2, or 3 oz) of almonds. Capillary fingerprick blood samples for glucose analysis were obtained at 0, 15, 30, 45, 60, 90, and 120 minutes. Glycemic responses were assessed by calculating the incremental area under the 2-hour blood glucose curve. The addition of almonds to white bread resulted in a progressive reduction in the glycemic index of the composite meal in a dose-dependent manner for the 30-g (105.8 F 23.3), 60-g (63.0 F 9.0), and 90-g (45.2 F 5.8) doses of almonds ( $r = 0.524$ ,  $n = 36$ ,  $P = .001$ ). We conclude that, in addition to lowering serum cholesterol levels, almonds may also reduce the glycemic impact of carbohydrate foods with which they are eaten.