

Reducing Blood Sugar with Beans – Defining the Minimum Serving

Eating a quarter cup of beans results in a significantly lower blood sugar (glycemic) response than a similar amount of starchy foods like rice, pasta, potatoes or corn.

EATING BEANS HAS been proven to result in a relatively low glycemic (blood glucose or blood sugar) response compared to other starchy foods. However, previous studies have tested serving sizes of one to two cups, which may not be achieved in a typical meal.

The current study assessed the blood glucose response of beans consumed at quarter- and half-cup portions compared to similar amounts of common starchy foods.

Six commonly consumed Canadian beans (pinto, navy, black, cranberry, red kidney and great northern) and four starchy control foods (white rice, macaroni, instant potatoes and corn) were consumed by 42 healthy volunteers in this study. Either quarter- or half-cup portions were eaten after an overnight fast and blood glucose response was measured over a two-hour period.

Results showed that both quarter- and half-cup servings of beans resulted in

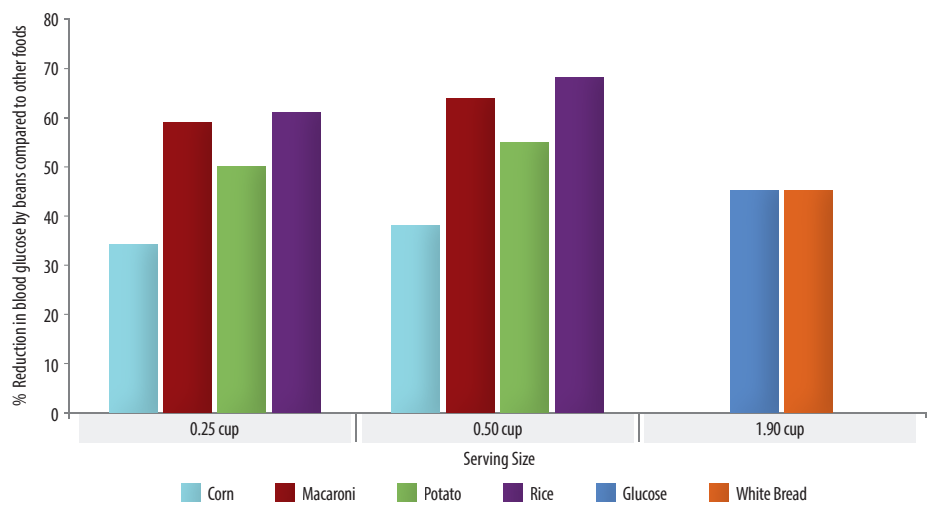
lower glycemic responses than the same quarter- or half-cup servings of corn, macaroni, potatoes or rice (Figure 1). The difference between beans and corn was smaller than for the other foods; the average glycemic response for the six types of beans was 34% less than that for corn. The average glycemic response of the six bean types was 59% less than that of macaroni, 50% less than potatoes and 61% less than rice. The magnitude of blood glucose reduction was similar when beans were consumed at either a quarter or half cup.

Compared to a quarter cup of commonly consumed starchy foods, the same amount of beans lowered the relative blood glucose response by 21–48%. A blood glucose reduction by at least 20% is deemed a significant effect by Health Canada. This research can be used to guide regulatory approval of a health claim for bean consumption.



Previous studies confirmed that one cup of cooked beans was the minimum effective serving for lowering blood glucose levels following a meal. This research supports that the minimum effective dose of beans in a meal may be lowered to a more achievable serving of a quarter cup. **▶**

Figure 1. Reduction in blood glucose when beans are consumed vs. common starchy foods.



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