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A review of methods to reduce the glycemic index of bakery products

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Background and Aims: The starch of white bread is quickly digested and absorbed and will increase the amount of glucose and insulin in the blood. The aim of this study is to investigate methods of reducing the glycemic index, such as using flour rich in fiber or adding bran, which adds to the nutritional value, which, in addition to affecting the glycemic response, allows increasing the amount of dietary fiber needed in the daily diet.

Materials and Methods: Since bread is the most relevant source of carbohydrates in the diet, many studies have been conducted to reduce the GI of bread and subsequently reduce cardiovascular diseases associated with obesity that by reviewing some articles and books on the sciencedirect website, the following results and findings were obtained.

Results: In people with type 2 diabetes, consuming high-fiber bread and breakfast cereal with added wheat bran for three months improved blood sugar control. Likewise, they included whole grain products in the daily diet of overweight subjects for two 6-week periods and observed a positive effect of fiber in reducing the glycemic response, which is mostly due to its physiological activity. It is involved in the viscosity of Kim in the upper digestive tract.

Conclusion: The presence of intact structures inaccessible to human amylases, as well as the decrease in pH that delays gastric emptying creates an obstacle for starch digestion and is effective in improving glucose metabolism. As a result, substituting whole grains for refined grains leads to better effectiveness for reducing the GI of bread.

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