

**Obesimed® Forte - Jenkins AL, Jenkins DJA, Wolever TMS, Rogovik AL, Jovanovski E, Božikov V, Rahelić D, Vuksan V. Comparable Postprandial Glucose Reductions with Viscous Fiber Blend Enriched Biscuits in Healthy Subjects and Patients with Diabetes Mellitus: Acute Randomized Controlled Clinical Trial. Croat Med J. 2008 December; 49(6): 772–782.**

Authors (year published)	Study design	Total patients	Intervention	Reported outcomes/results	Adverse events	Appraisal	Level
Jenkins A, et al., 2008	A single-blind, controlled, randomized clinical trial.	19	Blend glucomannan (70%) xanthan (30%)	Viscous fiber blend is a very potent soluble fiber which was tolerated and had effects on body weight-loss, satiety, and lipid profile.	No	D2 A1 P1 R1 T1 O1 F1 S1 C1	I

### CASP Questions for making sense of evidence

1. Did the study ask a clearly focused question?	2. Was this a RCT, and was it appropriately so?	3. Were participants appropriately allocated to intervention and control groups?	4. Were participant, staff, and study personnel blinded to participants' study group?	5. Were all participants who entered the trial accounted for at its conclusion?	6. Were the participants in all groups followed up and data collected in the same way?	7. Did the study have enough participants to minimize the play of chance?	8. How are the results presented, and what is the main result?	9. How precise are these results?	10. Were all important outcomes considered so that the results can be applied?
Yes	Yes. Appropriate for this study	Yes. Participants randomly assigned to glucomannan-xanthan 10 g/d or placebo.	Yes	Yes. 19 participants with diabetes and overweight	Safety and efficacy data obtained on all patients	Yes-power analysis performed.	Viscous fibers significantly reduced the GI by 74% in healthy participants and by 63% with diabetes.	Statistical tests appropriately used can have	Efficacy and safety both considered.

**Synopsis - Jenkins AL, Jenkins DJA, Wolever TMS, Rogovik AL, Jovanovski E, Božikov V, Rahelić D, Vuksan V. Comparable Postprandial Glucose Reductions with Viscous Fiber Blend Enriched Biscuits in Healthy Subjects and Patients with Diabetes Mellitus: Acute Randomized Controlled Clinical Trial. Croat Med J. 2008 December; 49(6): 772–782.**

Aim: to compare the blood glucose-lowering effect of a highly viscous fiber blend added to a starchy snack on postprandial glycemia between healthy participants and participants with diabetes mellitus.

Study design: a randomized, single-blind, crossover, controlled clinical trial.

Subjects: two groups of experiments were conducted: in healthy participants and participants with type 2 diabetes mellitus. 10 healthy participants (4 men and 6 women, aged 18-75 years, body mass index  $24,3 \pm 0,8$  kg/m<sup>2</sup>) and 9 participants with diabetes mellitus type 2 (3 men and 6 women, aged 18-75 years, BMI  $28,8 \pm 1,2$  kg/m<sup>2</sup>) on four separate occasions took either 50 g available carbohydrates as control biscuits, biscuits with 10 g of highly viscous fiber blend (approximately 70% glucomannan and 30% xanthan), white bread with 12 g of margarine, or white bread alone. Postprandial blood glucose response, glycemic index, and palatability were determined. Blood samples were obtained at 15, 30, 45, 60, and 90 minutes after the start of the meal in healthy volunteers and at 30-minute intervals for three hours in participants with diabetes.

Results: mean (95% confidence interval) glycemic index values of the viscous fiber blend biscuits were 26 (16-36) and 37 (27-47) glycemic index units for healthy participants and participants with diabetes mellitus, respectively. These values were significantly lower than those of white bread, white bread with 12 g of margarine, and control biscuits ( $p < 0,001$ , paired t test) both in healthy participants (glycemic index 100, 108 [57-159], and 101 [44-158], respectively) and participants with diabetes mellitus (glycemic index 100, 103 [79-127], and 94 [78-110], respectively).

Viscous fiber blend significantly reduced the glycemic index by 74% (7,4 glycemic index units/g of fiber) in healthy participants and by 63% (6.3 GI units/g of fiber) in participants with diabetes. The GI did not differ between control meals in both healthy participants and participants with diabetes. There were no significant differences in palatability among the types of meals, although participants with diabetes found the viscous fiber blend biscuits more palatable ( $p = 0,002$ , t test).

Authors' conclusion: viscous fiber blend is a very potent and palatable soluble fiber addition to a starchy snack, which is able to reduce the glycemic response to a similar extent in both healthy participants and individuals with diabetes mellitus.