

## MANFAAT MAKANAN RINGAN KAYA SERAT DALAM PERBAIKAN LINGKAR PINGGANG DAN INDEKS ATEROGENIK INDIVIDU OBESE

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### INTISARI

**Latar Belakang** : Obesitas yang ditandai dengan peningkatan ukuran lingkaran pinggang, merupakan salah satu faktor risiko penyakit degeneratif termasuk dislipidemia aterogenik yang ditandai oleh peningkatan kadar indeks aterogenik. Serat pangan dapat memperlambat laju pengosongan lambung yang mempertahankan rasa kenyang dan menurunkan nafsu makan melalui sekresi hormone GLP-1 dan PYY. Efek tersebut diyakini mampu menurunkan ukuran lingkaran pinggang dan indeks aterogenik pada individu obese.

**Tujuan Penelitian** : Mengetahui manfaat makanan ringan kaya serat terhadap perbaikan ukuran lingkaran pinggang dan indeks aterogenik individu obese.

**Metode** : Penelitian ini menggunakan desain *quasi experimental pre-post design with control group*. Sebanyak 40 subjek dewasa dengan status gizi obesitas diminta untuk mengonsumsi makanan ringan kaya serat sebanyak 42 gram/hari selama 6 minggu. Lingkaran pinggang diukur menggunakan *midline*, sedangkan indeks aterogenik diukur menggunakan rasio nilai Log TG/HDL-C. Uji *Shapiro-Wilk* digunakan untuk mengetahui normalitas data. Uji *paired t-test* dan *independent t-test* dilakukan untuk analisis data dengan persebaran data normal, sedangkan untuk persebaran data tidak normal dilakukan uji *Wilcoxon*.

**Hasil**: Konsumsi makanan ringan kaya serat sebanyak 42 gr selama 6 minggu mampu menurunkan ukuran lingkaran pinggang dan indeks aterogenik pada individu obese secara signifikan ( $p < 0,05$ ).

**Kesimpulan**: Konsumsi makanan ringan kaya serat bermanfaat dalam perbaikan lingkaran pinggang dan indeks aterogenik individu obese.

**Kata Kunci**: Obesitas, dislipidemia aterogenik, lingkaran pinggang, indeks aterogenik, serat.

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## BENEFITS OF FIBER-RICH SNACKS ON WAIST CIRCUMFERENCE AND ATHEROGENIC INDEX IN OBESE INDIVIDUALS

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### ABSTRACT

**Background :** Obesity, which is marked by an increase in waist circumference, is one of the risk factors for degenerative diseases including atherogenic dyslipidemia which is characterized by an increase in atherogenic index levels. Dietary fiber decreases the speed of gastric emptying which maintains satiety and reduces appetite through the secretion of the hormones GLP-1 and PYY. These effects is believed can reduce the size of the waist circumference and atherogenic index in obese individuals.

**Objective :** To determine the benefits of fiber-rich light snacks against improvements in waist circumference size and atherogenic index of obese individuals.

**Methods :** This study uses a quasi-experimental pre-post design with control group design. A total of 40 adult subjects with nutritional status of obesity were asked to consume fiber-rich foods as much as 42 grams / day for 6 weeks. Waist circumference was measured using midline, while the atherogenic index was measured using a ratio of Log TG / HDL-C values. The Shapiro-Wilk test is used for normality test. Hypothesis for normal data were analyzed using paired t-test and independent t-test, while for abnormal data distribution Wilcoxon test were used.

**Result :** Consumption of 42 grams of fiber-rich snacks for 6 weeks significantly reduced waist circumference and atherogenic index ( $p < 0.05$ ).

**Conclusion :** Consumption of fiber-rich snacks is beneficial in repairing the waist circumference and atherogenic index on obese individuals.

**Keyword :** Obesity, atherogenic dyslipidemia, waist circumference, atherogenic index, fiber.

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