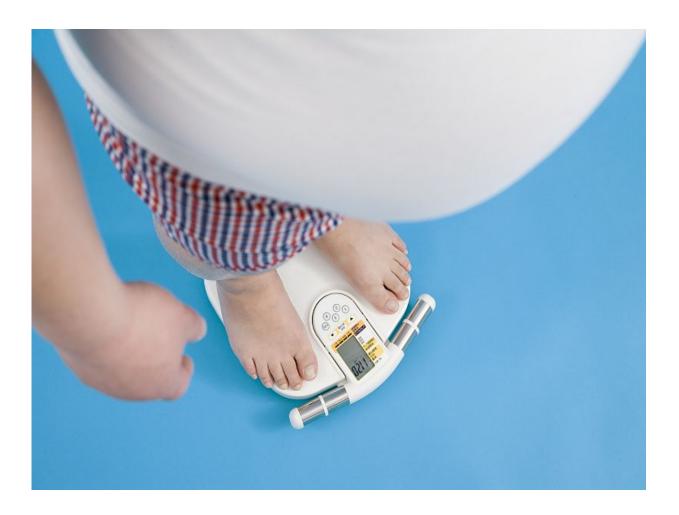


FGF21, dietary intake interaction impacts adiposity

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(HealthDay)—Fibroblast growth factor 21 (FGF21) genotypes may



interact with dietary macronutrient intake to affect central adiposity and body fat composition, according to a study published online Aug. 31 in *Diabetes Care*.

Yoriko Heianza, from Tulane University in New Orleans, and colleagues genotyped *FGF21* rs838147 in 715 overweight or <u>obese individuals</u> who were assigned to one of four diets with varied macronutrient contents.

The researchers observed a significant interaction between *FGF21* genotype and carbohydrate/fat intake on two-year changes in <u>waist</u> <u>circumference</u> (WC) (P = 0.049), as well as percentage of fat mass and trunk fat (P = 0.001 and 0.003, respectively). Carrying the carbohydrate intake-decreasing C allele of rs838147 was marginally associated with less reduction in WC in response to the low-carbohydrate/high-fat diet (P = 0.08), and was significantly associated with less reduction of total fat mass and trunk fat (P = 0.01 and 0.02, respectively). Among the high-carbohydrate/low-fat diet group, opposite genetic associations with these outcomes were observed; carrying the C allele correlated with a greater reduction in WC, total body fat mass, and trunk fat.

"A low-calorie, high-carbohydrate/low-fat <u>diet</u> was beneficial for overweight or obese individuals carrying the carbohydrate intakedecreasing allele of the *FGF21* variant to improve body composition and abdominal obesity," the authors write.

More information: <u>Full Text (subscription or payment may be</u> <u>required)</u>

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