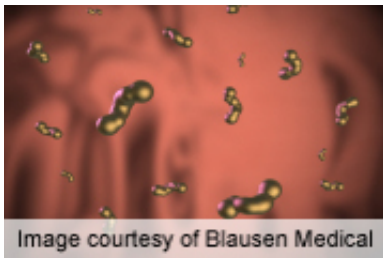


Low testosterone levels affect total lipid oxidation

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Very low testosterone levels impact total lipid oxidation but have no effect on the production of very-low-density lipoprotein-triglycerides, according to a study published online Nov. 27 in *Diabetes*.

(HealthDay)—Very low testosterone levels impact total lipid oxidation but have no effect on the production of very-low-density lipoprotein-triglycerides (VLDL-TGs), according to a study published online Nov. 27 in *Diabetes*.

Christian Høst, from the Aarhus University Hospital in Denmark, and colleagues treated 12 healthy young males (mean age, 23.1 years) with a gonadotropin-releasing hormone agonist to induce castration levels of testosterone. Over several days one month later, the men were randomly treated with a gel containing physiological levels of testosterone, supraphysiological levels of testosterone, and placebo as part of a crossover study.

The researchers found that short-term [hypogonadism](#) had no effect on the [secretion](#) or concentration of VLDL-TGs but was characterized by reduced total lipid oxidation. High physiological testosterone levels increased VLDL-TG secretion under both basal conditions and after application of a hyperinsulinemic-euglycemic clamp.

"These data show that testosterone can act through fast non-genomic pathways in the liver," Høst and colleagues conclude. "[Testosterone](#) is

not a major determinant of resting VLDL-TG kinetics in men."

The study was funded in part by an unconditional research grant from Ipsen Pharma. Two authors disclosed financial ties to the pharmaceutical industry.

More information: [Abstract](#)
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