Glucose dysregulation seen years before diabetes diagnosis

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“Because trials of prevention in people with prediabetes seem to be less successful over long term follow up, we may need to intervene much earlier than the prediabetes stage to prevent progression to full blown diabetes,” Sagesaka said in a statement. "A much earlier intervention [trial], either drug or lifestyle related, is warranted."

More information: Abstract/Full Text

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(HealthDay)—Individuals who develop diabetes or prediabetes have elevated fasting plasma glucose (FPG) at least 10 years before diagnosis, according to an observational study recently published in the Journal of the Endocrine Society.

Hiroyuki Sagesaka, M.D., from Aizawa Hospital in Matsumoto, Japan, and colleagues analyzed data from 27,392 health examinees without diabetes for a mean of 5.3 years. Ten years before diagnosis of prediabetes (4,781 participants) or diabetes (1,061 participants), trajectories of FPG, body mass index (BMI), and the single point insulin sensitivity estimator (SPISE), an index of insulin sensitivity, were assessed.

The researchers found that 10 years before diagnosis, mean FPG and BMI were significantly higher in individuals who developed diabetes (FPG, 101.5 versus 94.5 mg/dL; BMI, 24.0 versus 22.7 kg/m²), while SPISE was lower than among those who did not develop diabetes (SPISE, 7.32 versus 8.34; all P