

# Serum free fatty acid level verifies fasting state in children

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(HealthDay)—Serum free fatty acid (FFA) concentrations can

distinguish children's fed and fasting states, according to a study published online May 3 in *Pediatrics*.

Shavonne M. Collins, from the Eunice Kennedy Shriver National Institute of Child Health and Human Development in Bethesda, Maryland, and colleagues examined 442 inpatient (fasting) and 323 post-glucose load oral glucose tolerance test samples of glucose, insulin, and FFA from healthy-weight, overweight, and obese [children](#) (age 5 to 18 years) without diabetes. In a [cross-sectional study](#), mean FFA and percentage FFA values below the derived nonfasting cut point were compared in inpatient and outpatient settings (each, 442 children).

The researchers found that for identifying fasting, the area under the receiver operating characteristic (ROC) curve was significantly better for FFA than glucose or insulin ( $0.998 \pm 0.001$  versus  $0.850 \pm 0.016$  and  $0.906 \pm 0.011$ ). The sensitivity and specificity for nonfasting were 99.0 and 98.0 percent, respectively, for FFA

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