# HIV-infected US youth are at high risk of obesity and poor diet quality: a challenge for improving short- and long-term health outcomes.

## Title
HIV-infected US youth are at high risk of obesity and poor diet quality: a challenge for improving short- and long-term health outcomes.

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## Keywords
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- Female
- Health Behavior
- HIV Infections
- Humans
- Life Style
- Logistic Models
- Male
- Obesity
- Questionnaires
- Risk Factors
- Sex Factors
- Television
- United States

## Abstract
**OBJECTIVE:** To examine the relationships among dietary quality, weight status, and human immunodeficiency virus (HIV) infection in US adolescents and young adults.

**DESIGN:** This cross-sectional study was embedded in the Reaching for Excellence in Adolescent Care and Health cohort study of HIV-infected and HIV-uninfected, at-risk youth. Biochemical, clinical, and sociodemographic data were available. Dietary intake was collected using the Block Food Frequency Questionnaire and a modified Healthy Eating Index was calculated to measure diet quality.

**SUBJECTS/SETTING:** Participants included 264 HIV-infected and 127 HIV-uninfected youth 13 to 23 years old (75.2% women, 67.3% African American/non-Hispanic, 20.5% Hispanic, 12.3% other) at 14 clinic sites.

**STATISTICAL ANALYSES PERFORMED:** Determinants of obesity and the modified Healthy Eating Index were tested using logistic and generalized linear regression.

**RESULTS:** About half (51.7%) of participants were overweight or obese. Obesity was positively associated with being a woman, living independently, watching television $\geq 3$ hours
per day, previous dieting, and being from the northeastern or southern United States. Youth who were HIV uninfected or HIV infected with CD4 + T cells >=500 cells/µL had similar obesity rates; overweight (25%) and obesity (20%) was prevalent among women even with CD4 + T cells <200 cells/µL. The modified Healthy Eating Index score was 56.2±0.6, reflecting a diet needing improvement. HIV infection, watching television >=3 hours/day, and being from the Chicago, IL, area were associated with a lower-quality diet.

CONCLUSIONS: Obesity is a common nutrition problem for both HIV-infected and uninfected youth; however, HIV-infected youth are at increased risk of developing metabolic abnormalities. Culturally appropriate, client-focused nutrition education will help youth improve their diet and increase physical activity to reduce health consequences associated with both obesity and HIV infection.

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