

# Study shows strong link between adolescent obesity and high blood pressure

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A recent study published in the *American Journal of Hypertension* has found that body mass index (BMI) in healthy adolescents has a statistically significant association with both systolic blood pressures (SBP) and diastolic blood pressures (DBP), and highlights the significance of the global trend of rapidly increasing adolescent obesity.

The study, led by Yaron Arbel, M.D., Department of Cardiology, Tel Aviv Medical Center, examined 715,000 Israeli adolescents, both male and female, aged 16-20, who had received medical exams from 1998-2011.

There was a statistically significant link observed between BMI and blood pressure, both of which saw significant annual increases during the study. The percentage of overweight adolescents increased from 13.2% in 1998 to 21% in 2011, while the percentage of adolescents with high blood pressure (SBP > 130mmHg) rose from 7% to 28% in males and 2% to 12% in females.

The association of BMI to blood pressure was more pronounced in females than males. While the reason for this is not immediately clear, researchers hypothesized that it may be attributable to certain hormonal factors.

"An important finding in our analysis is that BMI was positively associated with SBP and DBP in both the normal weight and overweight groups," says Dr. Arbel. "This highlights the importance of BMI as a

marker for cardiovascular health in all body types."

Dr. Arbel feels that the study highlights the need to address childhood obesity: "Obese youth are more likely to have risk factors for cardiovascular disease, such as high cholesterol or high [blood pressure](#). They are much more likely to be obese as adults and are consequently more at risk for adult health problems such as heart disease, type 2 diabetes, stroke, numerous types of cancer, and osteoarthritis."

**More information:** *American Journal of Hypertension*, [ajh.oxfordjournals.org/lookup/...i/10.1093/ajh/hpv007](http://ajh.oxfordjournals.org/lookup/...i/10.1093/ajh/hpv007)

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