

# VU Research Portal

## Low-grade systemic inflammation in overweight children

Visser, M.; Bouter, L.M.; McQuillan, G.M.; Wener, M.H.; Harris, T.B.

### **published in**

Pediatrics

2001

### **DOI (link to publisher)**

[10.1542/peds.107.1.e13](https://doi.org/10.1542/peds.107.1.e13)

### **document version**

Publisher's PDF, also known as Version of record

[Link to publication in VU Research Portal](#)

### **citation for published version (APA)**

Visser, M., Bouter, L. M., McQuillan, G. M., Wener, M. H., & Harris, T. B. (2001). Low-grade systemic inflammation in overweight children. *Pediatrics*, *107*(1), E13. <https://doi.org/10.1542/peds.107.1.e13>

### **General rights**

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal ?

### **Take down policy**

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

### **E-mail address:**

[vuresearchportal.ub@vu.nl](mailto:vuresearchportal.ub@vu.nl)

enteroviral genome was confirmed in 39 of the samples (83.0%). In 8 of the 9 enteroviruses detected in the CSF and/or serum samples using PCR-Mitsubishi, the genotypes were identified as coxsackieviruses group A, which are usually difficult to isolate using cell culture methods.

**Conclusions.** These findings proved that the causative agents of febrile illness associated with seizures in summer were primarily enteroviruses, especially coxsackieviruses group A, and that febrile seizures might be caused by enteroviral infection in the central nervous system. *Pediatrics* 2001;107(1). URL: <http://www.pediatrics.org/cgi/content/full/107/1/e12>; *enterovirus, coxsackievirus group A, febrile seizures, polymerase chain reaction*.

**ABSTRACT.** Low-Grade Systemic Inflammation in Overweight Children. Marjolein Visser, PhD; Lex M. Bouter, PhD; Geraldine M. McQuillan, PhD; Mark H. Wener, MD; and Tamara B. Harris, MD, MS. **Objective.** Human adipose tissue expresses and releases the proinflammatory cytokine interleukin-6, potentially inducing low-grade systemic inflammation in persons with excess body fat. To limit potential confounding by inflammation-related diseases and subclinical cardiovascular disease, we tested the hypothesis that overweight is associated with low-grade systemic inflammation in children.

**Design and Setting.** The third National Health and Nutrition Examination Survey, 1988–1994, a representative sample of the US population.

**Participants.** A total of 3512 children 8 to 16 years of age.

**Outcome Measures.** Elevated serum C-reactive protein concentration (CRP;  $\geq 0.22$  mg/dL) and white blood cell count ( $10^9$  cells/L).

**Results.** Elevated CRP was present in 7.1% of the boys and 6.1% of the girls. Overweight children (defined

as having a body mass index or a sum of 3 skinfolds (triceps, subscapula, and supra-iliac) above the gender-specific 85th percentile) were more likely to have elevated CRP than were their normal-weight counterparts. After adjustment for potential confounders, including smoking and health status, the odds ratio (OR) was 3.74 (95% confidence interval [CI]: 1.66–8.43) for overweight boys and the OR was 3.17 (95% CI: 1.60–6.28) for overweight girls, based on the body mass index. Based on the sum of 3 skinfolds, these ORs were 5.11 (95% CI: 2.36–11.06) and 2.89 (95% CI: 1.49–5.59) for boys and girls, respectively. Overweight was also associated with statistically significant higher white blood cell counts. The results were similar when restricted to healthy, non-smoking, nonestrogen-using children.

**Conclusions.** In children 8 to 16 years of age, overweight is associated with higher CRP concentrations and higher white blood cell counts. These findings suggest a state of low-grade systemic inflammation in overweight children. *Pediatrics* 2001;107(1). URL: <http://www.pediatrics.org/cgi/content/full/107/1/e13>; *inflammation, obesity, children*.

**ABSTRACT.** Successful Treatment of Antiepileptic Drug Hypersensitivity Syndrome With Intravenous Immune Globulin. Oded Scheuerman, MD; Yehuda Nofech-Moses, MD; Avinoam Rachmel, MD; and Sha Ashkenazi, MD, MSc. Intravenous immune globulin (IVIG) has proved beneficial for severe immunologically related cutaneous adverse reactions. We report a child with severe antiepileptic drug hypersensitivity syndrome who was successfully treated with IVIG. IVIG should be considered in the pharmacologic armamentarium of severe antiepileptic drug hypersensitivity syndrome. *Pediatrics* 2001;107(1). URL: <http://www.pediatrics.org/cgi/content/full/107/1/e14>; *antiepileptic drugs, hypersensitivity, immune globulin*.