

**Hailer et al. Legg-Calvé-Perthes Disease and Risks for Cardiovascular Diseases and Blood Diseases. *Pediatrics*. 2010;125(6):e1308–e1315**

An error occurred in this article by Hailer et al, titled “Legg-Calvé-Perthes Disease and Risks for Cardiovascular Diseases and Blood Diseases” published in the June 2010 issue of *Pediatrics* (2010;125[6]:e1308–e1315; originally published online May 3, 2010; doi:10.1542/peds.2009–2935).

The ICD codes that we used to identify a diagnosis of Legg-Calvé-Perthes disease (LCPD) included some non-specific codes that may have included other diagnoses. We therefore reanalyzed the data by using only ICD codes specific to LCPD (ICD-7 code 732.04; ICD-8 code 722.11; ICD-9 code 732B; and ICD-10 codes M91.1, M91.2). The corrected abstract and tables follow.

## abstract

**OBJECTIVE:** We hypothesized that patients with Legg-Calvé-Perthes disease (LCPD) might have higher risks of cardiovascular and blood diseases.

**METHODS:** A total of 2579 patients with LCPD diagnosed between 1965 and 2005 were identified with the Swedish Inpatient Register. A total of 13 748 individuals without LCPD were selected randomly from among the Swedish general population, with matching according to year of birth, age, gender, and region of residence. Cox proportional-hazard regression analyses, with adjustment for socioeconomic index, were used to estimate relative risks. The patients also were compared with their same-gender siblings.

**RESULTS:** Patients with LCPD had a hazard ratio (HR) of 1.70 (95% confidence interval [CI]: 1.48–1.95) for cardiovascular diseases, compared with individuals without LCPD. There were statistically significantly higher risks for hypertensive disease, ischemic heart diseases, cerebrovascular diseases, and diseases of arteries, veins, and lymphatic vessels. There were statistically significantly higher risks for blood diseases, including anemias and coagulation defects (HR: 1.94 [95% CI: 1.51–2.49]), which were more pronounced among subjects >30 years of age at the follow-up (HR: 2.45 [95% CI: 1.77–3.41]). Patients also had statistically significantly higher risks of nutritional anemia (HR: 2.32 [95% CI: 1.41–3.81]) and hemolytic anemia (HR: 2.59 [95% CI: 1.72–3.92]). Analyses using siblings as the comparison group showed consistent results for cardiovascular diseases.

**CONCLUSIONS:** The results are consistent with the hypothesis that an insufficient blood supply to the femoral head, attributable to vascular pathologic conditions, is involved in the pathogenesis of LCPD. *Pediatrics* 2013;132:186–187

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**TABLE 1** Characteristics of the Study Subjects

	Individuals With LCPD	Individuals Without LCPD
Total number	2579	13 748
Male (%)	1936 (75.1)	10 408 (75.7)
Socioeconomic index		
Manual workers	890 (34.5)	3940 (28.7)
Non-manual workers	460 (17.8)	2579 (18.8)
Professionals	204 (7.9)	1548 (11.3)
Farmers	29 (1.1)	263 (1.9)
Self-employed workers	133 (5.2)	623 (4.5)
Others	863 (33.5)	4795 (34.9)

**TABLE 2** Association Between Legg-Calvé-Perthes Disease (LCPD) and Cardiovascular Diseases and Diseases of the Blood and Blood-Forming Organs, 2579 Individuals With LCPD (75.1% Male) and 13 748 Individuals Without LCPD (75.7% Male)

Disease (ICD-9 Code)	Individuals With LCPD, %	Individuals Without LCPD, %	Hazard Ratio (95% Confidence Interval)	
			Unadjusted	Adjusted for Socioeconomic Index
Cardiovascular diseases (390–459)				
No	88.4	91.8	Reference	Reference
Yes	11.6	8.2	1.70 (1.47–1.94)	1.70 (1.48–1.95)
Hypertensive diseases (401–405)				
No	96.2	97.9	Reference	Reference
Yes	3.8	2.1	2.21 (1.72–2.84)	2.19 (1.70–2.81)
Ischemic heart diseases (410–414)				
No	96.5	97.3	Reference	Reference
Yes	3.5	2.7	1.60 (1.25–2.06)	1.59 (1.24–2.05)
Pulmonary heart disease and diseases of pulmonary circulation (415–417)				
No	99.5	99.6	Reference	Reference
Yes	0.5	0.4	1.48 (0.80–2.71)	1.25 (0.67–2.33)
Cerebrovascular diseases (430–438)				
No	96.9	98.0	Reference	Reference
Yes	3.1	2.0	1.76 (1.34–2.31)	1.79 (1.36–2.36)
Diseases of arteries, arterioles, and capillaries (440–448)				
No	98.5	99.0	Reference	Reference
Yes	1.5	1.0	1.92 (1.30–2.83)	1.91 (1.29–2.82)
Diseases of veins, lymphatic vessels, and lymph nodes (451–459)				
No	97.2	98.2	Reference	Reference
Yes	2.8	1.8	1.71 (1.30–2.24)	1.73 (1.31–2.28)
Diseases of the blood and blood-forming organs (280–289)				
No	96.5	98.0	Reference	Reference
Yes	3.5	2.0	1.96 (1.53–2.52)	1.94 (1.51–2.49)
Coagulation defects (286–287)				
No	99.5	99.6	Reference	Reference
Yes	0.5	0.4	1.30 (0.72–2.36)	1.26 (0.69–2.29)
Nutritional anemia (280–281)				
No	99.1	99.5	Reference	Reference
Yes	0.9	0.5	2.24 (1.37–3.66)	2.32 (1.41–3.81)
Hemolytic anemia (282–285)				
No	98.6	99.3	Reference	Reference
Yes	1.4	0.7	2.60 (1.73–3.92)	2.59 (1.72–3.92)

**TABLE 3** Risks of Cardiovascular Diseases and Diseases of Blood and Blood-Forming Organs Among Patients With LCPD, in Comparison With Same-Gender Siblings

	Events	Hazard Ratio (95% CI)
Patients and siblings with the least age difference ( <i>n</i> = 1552)		
Cardiovascular diseases		
Siblings	58	Reference
Patients	98	2.28 (1.49–3.21)
Diseases of the blood and blood-forming organs		
Siblings	31	Reference
Patients	41	1.59 (0.93–2.71)
Patients and younger siblings ( <i>n</i> = 721)		
Cardiovascular diseases		
Siblings	26	Reference
Patients	47	1.57 (0.91–2.72)
Diseases of the blood and blood-forming organs		
Siblings	12	Reference
Patients	16	1.10 (0.47–2.59)
Patients and older siblings ( <i>n</i> = 831)		
Cardiovascular diseases		
Siblings	32	Reference
Patients	50	2.88 (1.66–5.00)
Diseases of the blood and blood-forming organs		
Siblings	19	Reference
Patients	25	2.00 (1.00–4.00)

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