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Author: Fábio A Araújo, Ana Martins, Nuno Alegrete, Laura D Howe, Raquel Lucas

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1 **A Shared Biomechanical Environment for Bone and Posture Development in**  
2 **Children**

3 Fábio A Araújo, MSc<sup>a,b</sup>, Ana Martins, BSc<sup>a</sup>, Nuno Alegrete, MD<sup>c,d</sup>, Laura D Howe,  
4 PhD<sup>e,f</sup>, Raquel Lucas, PhD<sup>a,b</sup>

5

6 **Affiliations:** <sup>a</sup>EPIUnit – Institute of Public Health, University of Porto, Porto, Portugal;

7 <sup>b</sup>Department of Clinical Epidemiology, Predictive Medicine and Public Health,

8 University of Porto Medical School, Porto, Portugal; <sup>c</sup>Centro Hospitalar São João,

9 Porto, Portugal; <sup>d</sup>Department of Surgery, University of Porto Medical School, Porto,

10 Portugal; <sup>e</sup>MRC Integrative Epidemiology Unit, Bristol, United Kingdom; <sup>f</sup>School of

11 Social and Community Medicine, University of Bristol, Bristol, United Kingdom.

12

13 **Address correspondence to:** Fábio A Araújo, Instituto de Saúde Pública da

14 Universidade do Porto, Rua das Taipas, 135-139, 4050-600 Porto, Portugal. Tel.: +351

15 22206 1820. E-mail: [fabio.araujo@ispup.up.pt](mailto:fabio.araujo@ispup.up.pt)

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18 **Abstract**

19 **BACKGROUND CONTEXT:** In each specific habitual standing posture, gravitational

20 forces determine the mechanical setting provided to skeletal structures. Bone quality

21 and resistance to physical stress is highly determined by habitual mechanical

22 stimulation. However, the relationship between bone properties and sagittal posture has

23 never been studied in children.

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