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**題目 (Title):**

背包負重和穿戴時間對學齡兒童的姿勢性代償及主觀疼痛抱怨之影響。  
(Postural Compensations and Subjective Complaints Due to Backpack Loads and Wear Time in Schoolchildren)

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**目的 (Purpose):**

本研究探討背負高達20%的體重之背包對於小學階段兒童的姿勢和疼痛抱怨之影響。  
(This study investigated the effects of carrying weighted backpacks of up to 20% of body weight on the posture and pain complaints of elementary-school children.)

**方法 (Methods):**

受試者包括62位8~11歲的兒童，當他們背負10%、15%或20%的體重之背包在行走前與行走後(負重行走六分鐘後)，以矢狀面攝影測量顱椎骨、軀幹前傾和骨盆傾斜的角度。使用視覺疼痛評估方法(VAS)評估背負載有重物的背包行走六分鐘後的主觀疼痛抱怨之嚴重程度。

(Craniovertebral, forward trunk lean and pelvic tilt angles were measured from sagittal photographs of 62 children (8-11 years old) before and after walking while carrying backpacks containing 10%, 15%, or 20% of body weight. Pain severity after a 6-minute walk with the loaded backpack was recorded. Subjective complaints of pain were

assessed using a visual analog scale after walking.)

**結果 (Results):**

重複測量的變異數分析結果顯示，負重行走的背包重量越高，兒童的姿勢角度會顯著不同，且疼痛抱怨也顯著增加。

(Repeated-measures ANOVA revealed statistically significant differences in postural angles and increased complaints of pain after walking with increased backpack loads.)

**結論 (Conclusions):**

研究結果顯示背包重量和負重時間會造成姿勢惡化，以及增加兒童受傷和疼痛的風險，後者是成人期背痛的高度預測因子。

(These results indicate that typical backpack loads create worsening postural changes due to backpack loads and time spent carrying those loads, putting children at increased risk for injury and pain, the latter of which is a strong predictor for back pain in adulthood.)

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