

1. 請敘述目前腦性麻痺之最新定義與分類方法，及跑步機懸吊系統之運用（共佔 20%）

2. 請閱讀以下文章後，回答以下問題(共佔 30%)

Gajdosik CG: Ability of Very Young Children to Produce Reliable Isometric Force Measurements. *Pediatric Physical Therapy* 2005;17:251-257. Abstract: Purpose: This study was designed to examine the reliability of measuring isometric muscle force in very young children with a hand-held dynamometer (HHD). Methods: Forty-five children aged two, three, or four years old and with typical development, were divided into three groups of 15 subjects each. Group 1 included two-year-old children ($X \text{ age} = 32 \pm 2.4$ months), group 2 contained three-year-old children ($X \text{ age} = 43 \pm 3.8$ months), and group 3 included four-year-old children ($X \text{ age} = 54 \pm 3.7$ months). Isometric force for shoulder flexion, elbow flexion, elbow extension, knee flexion, and knee extension were measured with a HHD on two occasions separated by five to nine days. The frequency of challenging child behaviors and extra test trials also were recorded. Results: Intraclass correlation coefficients (ICCs) (2, 1) for the combined group ($n = 45$) ranged from 0.90 to 0.95. The ICCs (2, 1) for the two-year-old children ranged from 0.76 to 0.91, for the three-year-old group from 0.85 to 0.92, and for the four-year-old children from 0.54 to 0.94. The frequency of challenging behaviors did not appear to be related to the level of reliability. Conclusion: Using a HHD and standardized procedures, isometric force of children who are typically developing and as young as two years of age can be measured with fair to excellent reliability.

①請簡述上篇文章之目的、方法、結果與結論，並提出您的評論(20%)。

②根據本文之結果顯示，3 歲兒童之膝伸直肌力平均值為 $3.85 \pm 1.27(\text{kg})$ ， $\text{ICC}=0.91$ ，若臨床上測到一位 3 歲兒童，其膝伸直肌力是 4 公斤，則可推測膝伸直肌 95%信賴區間值是多少？(5%)

③又若其提供膝屈曲肌之測量標準誤(SEM)是 0.4kg，當該位兒童之膝屈曲肌力值是 2.5 公斤，則其 95%信賴區間值是多少？(5%)

3. 請回答以下有關於新生兒神經動作發展評估(Neonatal Neuromotor Assessment)的問題：(共佔 25%)

(a) 現存的新生兒神經動作發展評估工具包括那幾類？(5%)

(b) 各類新生兒神經動作發展評估工具所根據的理論基礎為何？(10%)

(c) 各類新生兒神經動作發展評估工具的臨床實用性(clinical usefulness)與限制性(limitation)分別為何？(10%)

4. 某位小兒物理治療師想開設一家物理治療所，接受大醫院或附近診所轉介過來之兩歲以內疑似或確定有神經發展遲緩的兒童，請回答以下有關於該所在採購兒童發展評估工具時的問題：(共佔 25%)

(d) 選擇兒童發展評估工具時，應衡量的一般準則(criterion)有那些？並請簡單說明各項準則。(12%)

(e) 該所至少應具備那幾類的兒童發展評估工具？並請各舉出一項你(妳)認為最適合的工具名稱及推薦的理由。(13%)