

## Appendix 2: Neonatal Intensive Care Unit Network Neurobehavioral Scale Summary Score Definitions

Summary scores for the Neonatal Intensive Care Unit Network Neurobehavioral Scale were developed by using an approach that combined conceptual and statistical (coefficient  $\alpha$ ) aggregation of items and scores. The summary scores were first developed on a random selection of one half of the

sample and then “replicated” on the second half of the sample. The 13 summary scores are described below. A higher score on each scale means a higher level of the construct. For example, a high score on hypertonia means that the infant was more hypertonic, and a high score on hypotonia means that the infant was more hypotonic. The  $\alpha$  coefficients for the summary scores based on the 1211 scores from the Maternal Lifestyle Study data are shown in “Summary Statistics of Neonatal Intensive Care Unit Network Neurobehavioral Scale Manual” earlier in this issue.

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### NEONATAL INTENSIVE CARE UNIT NETWORK NEUROBEHAVIORAL SCALE SUMMARY SCORES

1. Habituation	Response decrement to repeated auditory and visual stimuli; mean of items (3 items; range: 1–9)
2. Attention	Response to animate and inanimate auditory and visual stimuli; mean of items (7 items; range: 1–9)
3. Handling	Handling strategies used during orientation to maintain alert state; mean number of strategies used (8 items, range 0–1)
4. Quality of movement	Measure of motor control including smoothness, maturity, lack of startles and tremors; mean of items recoded for good motor control (6 items; range: 1–9)
5. Regulation	Capacity to organize motor activity, physiology, and state during the examination and to respond to cuddling, consoling, and negative stimuli; mean of items recoded for good regulation (15 items; range: 1–9)
6. Nonoptimal reflexes	Any nonoptimal response to reflex elicitation; sum of items recoded for nonoptimal reflexes (15 items; range: 0–15)
7. Asymmetric reflexes	Any asymmetric response to reflex elicitation; sum of items recoded for asymmetric responses (16 items; range: 0–16)
8. Stress/abstinence	Amount of stress and abstinence signs observed during examination; mean number of observed stress signs (50 items; range: 0–1)
9. Arousal	Level of arousal including state and motor activity during the examination; mean of items recoded for high arousal (7 items; range: 1–9)
10. Hypertonicity	Hypertonic response in arms, legs, or trunk or in general tone; sum of items recoded for hypertonic indicators (10 items; range: 0–10)
11. Hypotonicity	Hypotonic response in arms, legs, or trunk or in general tone; sum of items recoded for hypotonic indicators (10 items; range: 0–10)
12. Excitability	Measure of high levels of motor, state, and physiologic reactivity; sum of items recoded for excitable behavior (15 items; range: 0–15)
13. Lethargy	Measure of low levels of motor, state, and physiologic reactivity; sum of items recoded for lethargic behavior (15 items; range: 0–15)