

Advancing pediatric assessment for more reliable clinical outcomes

The Bayley Scales of Infant and Toddler

Development™ are among the most

widely used tools in clinical trials assessing

neurodevelopmental outcomes. With the

release of the Bayley™-4, sponsors and CROs
have an opportunity to enhance the validity,
sensitivity, and reliability of their trial data.





Key advancements in Bayley-4 (compared to Bayley™-III)

- Improved sensitivity to developmental change The Bayley-4 incorporates updated norms, helping ensure more precise measurement of subtle developmental changes critical for clinical trial endpoints.
- Refined Growth Scale Values (GSVs) Updated GSVs track individual developmental progress over time. A GSV Comparability Report includes tables for aligning scores between Bayley-III and Bayley-4 and details on the statistical methods used to establish comparability.
- **Stronger cross-cultural validity** With improved representation in standardization, the Bayley-4 better accounts for diverse populations, reducing potential bias in clinical trials.
- Optimized administration for clinical settings Streamlined subtests help reduce the burden on raters while maintaining psychometric rigor—critical for large-scale, multi-site trials.
- Alignment with regulatory expectations As regulatory agencies increasingly emphasize the use of the most current and validated assessments, the Bayley-4 aligns with best practices in clinical outcome assessments (COAs).

















ADMINISTRATION & SCORING

- Flexible administration with Series Items noted on the record form
- Motor response items embedded in the record form
- Dichotomous scoring approach (i.e., 1, 0)
- Flexible administration with Series Items and Related Items identified on the record form and supported via digital administration
- Motor response items in a separate Motor Response booklet
- Structured caregiver questions to support administration on relevant items
- Polytomous scoring approach (i.e., 2, 1, 0)

CONTENT UPDATES

- Assesses 5 domains: Cognitive, language, motor, social-emotional and adaptive behavior
- Adaptive behavior content from the Adaptive Behavior Assessment System - Second Edition (ABAS-II)
- Retains 5 domains: Cognitive, language, motor, socialemotional and adaptive behavior
- Adaptive behavior content from the Vineland Adaptive Behavior Scales–Third Edition (Vineland-3)
- Updated item content based on research and user feedback

NORMS AND CLINICAL STUDIES

· Data collected 2001-2002

- Data collected 2017–2019
- · Updated reliability and validity studies

ADMINISTRATION TIME

- Completion Time: 30 to 70 minutes (depending upon age of child)
- Adaptive behavior scale contains 241 items for caregiver response
- Completion Time: 30 to 90 minutes (depending upon age of child)
- Adaptive behavior scale contains 120 items to reduce the caregiver administration time



Comparing the Bayley-III and Bayley-4

Pearson's **Growth Scale Value**

(GSV) Comparability Report provides tables of comparable GSVs on corresponding subtests of the Bayley-III and Bayley-4. It also describes the method used to create comparable score tables and relevant statistical findings.



Scientific consultation

Our pharma research consulting team includes experts in test development, clinical practice, and psychometrics. This team is available to support trial sponsors and CROs in integrating the Bayley-4 into study protocols, ensuring optimal administration, scoring, GSV interpretation, and data analysis. (Fees apply.)



Bayley-4 translation availability

The Bayley-4 is available in multiple languages to support international clinical trials. Please **contact us** to inquire about specific translations and availability.

Transition to the Bayley-4 for more robust and validated trial outcomes. Contact us.

