



## **Psycho-Educational Testing Approaches for Children with Cornelia de Lange Syndrome (CdLS)**

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Before a child can receive special education and related services from the school district for the first time, an individual evaluation of the child must be conducted to see if the child has a disability and is eligible for special education as defined by the Education Act. Parental consent must be obtained in writing before this evaluation can be conducted. The evaluation is done to gather information that will determine the child's educational needs and guide decision-making about appropriate educational programming for the child. The tests and assessments must be valid and reliable, administered by trained examiners and given in the child's primary mode of communication. After the evaluation the school will provide you with a copy of the evaluation report. Students with Cornelia de Lange Syndrome (CdLS) demonstrate a wide range of physical and cognitive manifestations. There are many assessments to choose from and which to use depends on the child's abilities and needs. There are a few things to consider: the child's language ability and mode of communication, the child's physical abilities, and temperament.

The evaluation must assess all areas related to the child's disability, including:

- Health
- Vision and hearing
- Social and emotional status
- General intelligence and learning style
- Communication abilities
- Fine and gross motor abilities
- Strengths, preferences and needs

Tests alone will not give a comprehensive picture of how a child performs or what he/she knows or does not know. Only by collecting data through a variety of formal and informal approaches (observations, interviews with teachers and family) can an adequate picture be obtained of the child's weaknesses and strengths. A comprehensive assessment is one that includes tests of intelligence, academic achievement and adaptive behavior (daily living skills, communication skill, and social skills). The evaluation should identify the child's needs in other areas such as speech and language, occupational and physical therapy, and need for assistive technology or transition services. Intelligence testing can tell you how your child is functioning cognitively. Intelligence tests are important in establishing realistic expectations of your child's abilities measure different skills, including:

- Verbal reasoning and vocabulary: thinking with words
- Fluid reasoning: using language to solve unfamiliar problems
- Visual-spatial and visual-motor skills; thinking with pictures, designs, and hands
- Short-term and working memory
- Long term memory and retrieval: recalling factual information and retrieving it from memory
- Processing speed: making small decisions quickly with pencil in hand

### **Examples of test of cognition are:**

- Wechsler Intelligence Test for Children – Firth Edition (WISC-V) for ages 6 through 16. The WISC-V is a standardized test that assesses verbal and perceptual (i.e. non-verbal) reasoning ability using a variety of tasks, including answering questions, defining words, and working with blocks and pictures. Also assesses working memory through tasks.
- Wechsler Preschool and Primary Scale (WPPSI) for ages 2.6 through 7.7
- Wechsler Adult Intelligence Test for ages 16 and up

Intelligence tests should allow the child to demonstrate their abilities and not be penalized for their disabilities. Such intelligence tests may omit expressive language and/or visual motor skills. The WISC-IV depends on a child's verbal ability. If a child has weak oral language skills, the test used will not require expressive language skills.



Example of nonverbal tests of intelligence are:

- Comprehension Test of Nonverbal Intelligence (CTONI-2). Unlike the WISC-V this test has no verbal tasks, thus all the information is presented visually in a multiple-choice format
- Leiter International Performance Scale (Leiter-3)
- Naglieri Nonverbal Ability (NNAT2)
- Test of Nonverbal Intelligence (TONI-4)

Academic achievement tests measure a child's skills in reading, written language, and mathematics. For children with CdLS it is important to choose appropriate subtests and for the tests to be administered individually, over a period of time to prevent fatigue.

Some routinely used achievement tests are:

- Woodcock Johnson
- Woodcock Munoz
- Kaufman Test of Educational Achievement
- Peabody Individual Achievement Tests – 4<sup>th</sup> edition (PPVT-IVA). Assesses receptive vocabulary skills using a picture based task where individuals are asked to point to one of four pictures which best represents a word.
- Wide range Achievement Test (WRAT)
- Brigance Comprehensive Inventory
- Bender Gestalt
- Gray Oral Reading Test
- Key-Math -3 Diagnostic Assessment

Multiple subject tests:

- Kaufman Test of Educational Achievement (KETA\_II)
- Wechsler Individual Achievement Test- Third Edition (WIAT\_III)
- Woodcock-Johnson III Tests of Achievement (WJ III ACH)

Single subject tests:

- Gray Oral Reading Tests (GORT-5)
- Comprehensive Test of Phonological Processing (CTOPP2)
- Oral and Written Language Scales (OWLS\_II)
- Tests of Written Language (TOWL\_4)
- Key-Math-3 Diagnostic Assessment

Memory Ability:

WISC-V

Subtest from Wide-range Assessment of Memory and Learning- Second Edition (WRAML2). WRAML-2 is a standardized assessment tool to measure visual and auditory/verbal memory through a variety of tasks.

### **Speech and Language Skills:**

A speech and language assessment will assess a child's receptive and expressive skills which include listening, oral expression, vocabulary, syntax, semantics, nonliteral and abstract language, and speech articulation. Speech and language evaluations should be administered by a Speech and Language Pathologist (SLP).

Some examples of tests are:

- Clinical Evaluation of Language Fundamentals (CELF-5)
- Oral and Written Language Scales (OWLS-II)
- Peabody Picture Vocabulary Test (PPVT-5), and
- Goldman-Fristoe Test of Articulation (GFTA-2).



Auditory, Visual, Visual-Motor, and Sensory Processing Assessments can determine a processing disorder in any one or combination of the senses. These evaluations should be conducted by an occupational and/or physical therapist trained in sensory integrative disorders. Examples of these evaluations are:

- The Berry Buktenica Developmental Test of Visual Motor Integration
- The Motor Free Visual Perception Test, and
- The Developmental Test of Visual Perception

Adaptive Behavior Assessment tests the skills that a child needs to live safely and independently in the community. Appropriate adaptive behavior scales should be selected with the individual child in mind. One useful assessment is the Vineland Adaptive Behavior Scales test.

A Functional Behavior Assessment (FBA) is used to understand a child's behaviors and the purpose they serve and develop a Behavior Intervention Plan. Transition assessments for ages 14 and older are a necessary step in helping young adult with CdLS set goals for their future.

These include:

- Street Survival Skills Questionnaire (SSSQ)
- BRIGANCE Transition Skills Inventory (TSI)
- Enderle-Severson Transition Rating Scales (ESTR)
- COPS Picture Interest Inventory (COPS-PIC)
- Reading Free Vocational Interest Inventory (R-FVII)

Additionally, a good resource for parents is *All About Tests and Assessments*, by Melissa Lee Farrell, Ph.D., SAIF, Pamela Darr Wright, MA, MSW, and Peter W.D. Wright, Esq. (WrightsLaw)

In summary, children with CdLS can be challenging to test because of their wide range of abilities and physical, cognitive and developmental disabilities. It is important to look at the individual child, the needs of the child, and what the goal of testing is - assessment, evaluation, or progress monitoring.