Saunders/Elsevier; Wilks T, Gerber J, Erdie-Lalena C: Developmental milestones: cognitive development, *Pediatr Rev* 31(9):364–367, 2010.

Results of standardized tests are helpful in contributing to the diagnosis of CI. Tests for assessing adaptive behaviors include the Vineland Social Maturity Scale and the American Association on Mental Retardation Adaptive Behavior Scale. Informal appraisal of adaptive behavior may be made by those fully acquainted with the child (e.g., teachers, parents, other care providers). Frequently, these observations lead parents to seek evaluation of the child's development.

A more useful approach for clinical application is classification based on educational potential or symptom severity. For educational purposes, the mildly impaired group constitutes about 85% of all people with CI, and the group with moderate levels of CI accounts for about 10% of the intellectually disabled population (Shapiro and Batshaw, 2011; Shea, 2012) (Table 18-1).

TABLE 18-1

Cognitive Impairment IQ Level

Mild	50-55 to 70-75
Moderate	35–4 to 50–55
Severe	20-25 to 35-40
Profound	below 20-25

Etiology

The causes of severe CI are primarily genetic, biochemical, and infectious. Although the etiology is unknown in the majority of cases, familial, social, environmental, and organic causes may predominate. Among individuals with CI, a sizable proportion of the cases are linked to Down syndrome, fragile X syndrome (FXS), or fetal alcohol syndrome. General categories of events that may lead to CI include the following (Katz and Lazcano-Ponce, 2008; Walker and Johnson, 2006):

- Infection and intoxication, such as congenital rubella, syphilis, maternal drug consumption (e.g., fetal alcohol syndrome), chronic lead ingestion, or kernicterus
- Trauma or physical agent (e.g., injury to the brain experienced