

# Cognitive and Intellectual Characteristics in Williams Syndrome

**It is important to remember that while individuals with Williams syndrome may have particular difficulties, everyone is unique and will have things that they find easier and things they find more difficult. How a child develops is difficult to predict and every single person is different.**

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## Cognitive Profile and Intellectual Disability

Most individuals with Williams syndrome have a degree of intellectual disability, ranging from mild to severe.

Research studies have suggested that IQ scores for children with Williams syndrome range from 40 to 112, with a mean IQ score of 68 which equates to a mild intellectual disability (average IQ is 100). However, it has been reported that in individuals with smaller genetic deletions IQ scores may be higher.

Due to developmental delays, it is common for children to display 'milestone' behaviours somewhat later than is considered typical, such as walking or toilet training.

Research has demonstrated that individuals with Williams syndrome have strengths in their verbal activities and social skills relative to their IQ. Their use of language is often unusual. For example, individuals with Williams syndrome tend to copy phrases they have heard other people use, so that their vocabulary may sound quite sophisticated and they often use a lot of emotional language. Typically, however, their understanding of language is much poorer than their spoken vocabulary might indicate.

Auditory short-term memory and facial recognition skills are some of the other strengths associated with Williams syndrome.

Individuals with Williams syndrome tend to have difficulty with visual-motor skills and visuospatial construction. They also have difficulties with maths and in maintaining focus more generally. This distractibility is very common during mid-childhood, but tends to become less of a problem as children grown older.

The following table summarises the cognitive strengths and weaknesses found in many children and adults with Williams syndrome:

Strengths	Weaknesses
Speech and language	Motor and spatial relations
Verbal short-term memory	Visuospatial construction e.g drawing, buttoning shirts
Very social personality, especially with adults and are unafraid of strangers	Milestones usually achieved at a later age than typically developing children
Facial processing	High distractibility