

What is down syndrome

A presence of chromosome 21 causes children to be born with the developmental condition known as Down syndrome (Evans-Martin, 2008). Mothers of children with Down syndrome can often face the emotional challenges of feeling guilty and questioning if it their fault. However NHS guidance confirms that down syndrome occurs before conception as a result of chromosomes, meaning it is not a result of what any mother has done before or during pregnancy (NHS, 2023). The chances of having a baby with Down syndrome increases as women get older with risk rising significantly after age 35 (Newberger, 2000). However, it is a common misconception that only older women have babies with Down syndrome. In reality, anyone can have a baby with down syndrome. Most babies with Down syndrome are born to younger women, because younger women have higher overall birth rates (NHS, 2023). This highlights the importance of challenging misconceptions and ensuring families receive accurate, balanced information during pregnancy.

Diagnosing Down Syndrome

During pregnancy women are offered the choice of having prenatal screening to determine the baby's chances of having down syndrome. This is carried out between 10-14 weeks of pregnancy where the mother will have combined testing of a blood test and ultrasound (Public Health Wales, 2023). Since 2018 in Wales, mothers have also been offered Non-Invasive Prenatal Testing (NIPT) as part of a safe screening pathway (Public Health Wales, 2018). NIPT is a blood test performed on a pregnant woman to determine the likelihood that the unborn child will have Down syndrome, Edwards syndrome, or Patau syndrome. However, despite these improvements, the pathway for diagnosis continues to rely on invasive diagnostic procedures. Following a high NIPT test result, further tests including Amniocentesis or Chorionic Villus Sampling (CVS) are the only diagnostic options available to confirm if a baby has one of these conditions (NHS, 2023). During CVS testing, samples of the placenta tissue are taken whereas during Amniocentesis a sample of the amniotic fluid is taken. Public Health Wales (2023) highlights that choosing to have either of these tests places a mother at risk of miscarriage. This decision causes a substantial emotional burden for parents, creating a barrier in the diagnostic process.

Down Syndrome

Barriers of living with down syndrome

The Down Syndrome Resource Foundation (2026) identifies that speech development in children with Down syndrome is influenced by several factors, including hearing difficulties, low muscle tone, differences in facial structure, and challenges with learning and memory. Delays in expressive language, understanding speech and impaired auditory processing can make it more difficult for children to communicate their needs. Difficulties in processing spoken information can also affect their ability to follow instructions, which has a significant impact in early education environments where verbal communication is central to learning. Over 80% of children with down syndrome experience hearing difficulties (The Down Syndrome Association, 2021). According to Brown (2020) hearing impairments can cause delayed language acquisition. For young children in early years hearing language is fundamental to developing speech and communication. Research shows that children with hearing difficulty develop lower oral language skills compared to children without. While vocabulary delays are present in about 50% of children with Down syndrome, grammatical development is delayed in the majority of children once they reach a mental age of three years. (Evans-Martin, 2008).

Furthermore, children with Down syndrome can face significant social barriers of negative cultural attitudes and low expectations. These attitudes can limit learning opportunities by creating barriers to participation and inclusion. For example assumptions that a child with down syndrome cannot go to main stream education or cannot live independently in adulthood. This aligns with the Social Model of Disability which argues that these limitations are not due to having a disability, the barrier is a negative attitude created by society (Shakespeare, 2013).



Circle time /Amser cylch
(Source: Willow Daycare, 2026)



Tidy up time/ Amser Tacliso

Inclusive Practice

Children with Down syndrome have the right to have the same learning opportunities and education as any other child as outlined in the Salamanca statement 'Education for All' (Centre for Studies on Inclusive Education, 2018; Crutchley, 2018). The purpose of inclusive practice in education is to eliminate any obstacles to learning so that every child, particularly vulnerable children who are at risk of exclusion, has equal access to fully participate (Devarakonda, 2013). This is further supported by Lowell and Morris (2019) who highlight that equity in education means ensuring every learner receives the right individual support and opportunities they need to succeed, regardless of their background or individual characteristics. The *Equality Act 2010* places a legal duty on education settings to protect children from discrimination, advance equality of opportunity, and make reasonable adjustments so that disabled children are not placed at a disadvantage.

Support Strategies

The Down Syndrome Association (2021) identifies visual aids as a highly effective support tool for children with Down syndrome due to many children having stronger visual learning skills than auditory processing abilities. This difference can significantly impact speech and language development, as reduced auditory processing makes it harder to remember and learn new words. Therefore visual support supports children to access information which reduces cognitive overload. Using pictures for now and next supports classroom routines by helping children understand transitions (DfE, 2021). This increases independence and reduces feelings of anxiety. Independence is an important skill which builds confidence, enabling children to thrive in learning environments (Welsh Government, 2021). Furthermore, visual supports align with the ALN Code (Wales) 2021, which requires child-centred, individual support that removes barriers to learning. However, visual aids have limitations, particularly because this strategy relies on the child having access to the correct symbol or card at the right moment. This can limit what the child is able to communicate creating limitations to their needs. A more effective strategy is Makaton. Makaton is a multimodal language approach that combines signs, symbols and speech to assist communication (Pearson & Adcock, 2024). Makaton fosters inclusive practice by reducing language barriers (Mistry & Barnes, 2013). A study in Kazakhstan revealed that classrooms with daily routines that use Makaton promote basic language development and make communication more inclusive (Sin, A 2020). Compared with visual aids, Makaton does not depend on physical resources, enabling children to communicate independently.

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