

Speech Delay

Definition / Supporting Information

Language includes understanding and use of words and sentences, including social use of language.

Speech includes speech sounds, voice, and fluency.

- Receptive language generally develops in advance of expressive language, except in uncommon circumstances
 - Hydrocephalus
 - Severe language processing disorder
 - Autism spectrum disorders (ASDs)
- Children develop language and speech sounds in a specific order [[Stages of speech and language development chart](#)]
- Speech or language **delay** means developing speech, language or components of them in the expected order, but more slowly than peers
- Speech or language **disorder** means an atypical pattern of development or severely delayed development
- 1 in 10 children has speech, language or communication needs (SLCN) according to [Talking Point](#)

Keywords / also known as: delayed milestones, delayed speech, language delay

Essential History

- Normal developmental milestones can be seen in Table 1
- Risk factors for language delays are similar to those for developmental disorders in general

Table 1: Stages of Speech and Language Development

	Listening and attention	Understanding	Speech sounds and talk	Social skills
Up to 3 months	<ul style="list-style-type: none"> Turns towards a familiar sound Startled by loud noises 	<ul style="list-style-type: none"> Recognises parent's voice Often calmed by familiar friendly voice eg, parents 	<ul style="list-style-type: none"> Frequently cries especially when unhappy or uncomfortable Makes vocal sounds eg, cooing, gurgling 	<ul style="list-style-type: none"> Gazes at faces and copies facial movements eg, sticking out tongue Makes eye contact for fairly long periods
3-6 months	<ul style="list-style-type: none"> Watches face when someone talks 	<ul style="list-style-type: none"> Shows excitement at sounds of approaching voices 	<ul style="list-style-type: none"> Makes vocal noises to get attention Makes sounds back when talked to Laughs during play Babbles to self 	<ul style="list-style-type: none"> Senses different emotions in parent's voice and may respond differently, for example, smile, quieten, laugh Cries in different ways to express different needs
6-12 months	<ul style="list-style-type: none"> Locates source of voice with accuracy Focuses on different sounds, eg, telephone, doorbell, click 	<ul style="list-style-type: none"> Understands frequently used words such as 'all gone', 'no' and 'bye-bye' Stops and looks when hears own name Understands simple instructions when supported by gestures and context 	<ul style="list-style-type: none"> Uses speech sounds (babbling) to communicate with adults; says sounds like 'ba-ba, no-no, go-go' Stops babbling when hears familiar adult voice Uses gestures such as waving and pointing to help communicate Around 12 months begins to use single words eg, 'mummum', 'dada', 'tete' (teddy) 	<ul style="list-style-type: none"> Enjoys action rhymes and songs Tries to copy adult speech and lip movements Takes 'turns' in conversations (using babble)
12-15 months	<ul style="list-style-type: none"> Attends to music and singing Enjoys sound - making toys / objects 	<ul style="list-style-type: none"> Understands single words in context eg, cup, milk, daddy Understands more words than they can say Understands simple instructions eg, 'kiss mummy', 'give to daddy', 'stop' 	<ul style="list-style-type: none"> Says around 10 single words, although these may not be clear Reaches or points to something they want whilst making speech sounds 	<ul style="list-style-type: none"> Likes being with familiar adults Likes watching adults for short periods of time

Key Practice Points
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15-18
months

- Listens and responds to simple information / instructions eg, '**Ben, put on shoes**', '**Mohammed, give to daddy**'
- Understands a wide range of single words and some two-word phrases, eg, '**give me**', '**shoe on**'
- Recognises and points to objects and pictures in books if asked
- Gives named familiar objects to adult eg, coat, car, apple, book
- Still babbles but uses at least 20 single words correctly, although may not be clear
- Copies gestures and words from adults
- Constant babbling and single words used during play
- Uses intonation, pitch and changing volume when 'talking'
- Simple pretend play
- Plays alone, although likes to be near familiar adult
- Although increasingly independent, happiest when near familiar adult

18
months
- 2
years

- Focuses on an activity of their own choice but finds it difficult to be directed by an adult
- Use of child's name beginning to help them to attend to what an adult says eg, '**Sarah, eat sandwiches**', '**Ali, put coat on**'
- Understanding of single words develops rapidly during this stage: anything between 200 and 500 words are known
- Understands more simple instructions eg, '**Get mummy's shoes**', '**Get your bricks**'. '**Tell dad tea's ready**'
- Uses up to 50 words
- Begins to put two or three words together
- Frequently asks questions eg, the names of people and objects (towards two years of age)
- Uses speech sounds p,b,m,w
- 'Pretend' play developing with toys, such as feeding a doll or driving a car
- Becomes frustrated when unable to make self understood - this may result in tantrums
- Follows adult body language including pointing, gesture and facial expressions

2-3
years

- Beginning to listen to talk with interest, but easily distracted
- Listens to talk addresses to him / herself, but finds it difficult if prompts are not provided, eg, **use of name**, '**stop and listen**'
- Developing understanding of simple concepts including in / on / under, big / little
- Understands phrases like '**put teddy in the box**' '**get your book, coat and bag**', '**draw a big brown dog**'
- Understands simple '**who**' and '**what**' and '**where**' questions but not why
- Understands a simple story when supported with pictures
- Uses 300 words including descriptive language, time, space, function
- Links four to five words together
- May stutter or stammer when thinking what to say
- Able to use pronouns (me, him, she), plurals and prepositions (in, on, under)
- Has problems saying speech sounds: /r/w/y, f/th, s/sh/ch/dz/j
- Holds a conversation but jumps from topic to topic
- Interested in other's play and will join in
- Expresses emotions towards adults and peers using words, not just actions

<p>3-4 years</p> <ul style="list-style-type: none"> Enjoys listening to stories Still finds it difficult to attend to more than one things at a time, so can't easily listen to a speaker whilst still carrying on an activity; has to switch attention between speaker and task 	<ul style="list-style-type: none"> Understanding questions of instructions with two parts: 'get your jumper' and 'stand by the door' Understands 'why' questions Aware of time in relation to past, present and future eg, Today is sunny, yesterday was rainy. I wonder what the weather will be like tomorrow? (towards four years) 	<ul style="list-style-type: none"> Uses sentences of four to six words, eg, 'I want to play with cars. What's that thing called?' Uses future and past tense May continue to have problems with irregular words, 'runned' for 'ran', 'swimmed' for 'swam' Able to remember and enjoys telling long stories or singing stories Has problems saying r, j, th, ch and sh 	<ul style="list-style-type: none"> Understands turn-taking as well as sharing with adults and peers Initiates conversations Enjoys playing with peers Able to argue with adults or peers if they disagree - uses words, not just actions
<p>4-5 years</p> <ul style="list-style-type: none"> Attention is now more flexible - the child can understand spoken instructions related to a task without stopping the activity to look at the speaker 	<ul style="list-style-type: none"> Able to follow simple story without pictures Understands instructions containing sequencing words: 'first...after...last' Understands adjectives: soft, hard, smooth etc Aware of more complex humour, laughs at jokes that are told 	<ul style="list-style-type: none"> Uses well formed sentences eg, 'I played with Ben at lunchtime' but there may still be some grammatical errors Easily understood by adults and peers, with only a few immaturities in speech sounds, for example, 'th', 'r' and three consonant combinations 'scribble' Frequently asks the meaning of unfamiliar words and may use them randomly 	<ul style="list-style-type: none"> Chooses own friends Generally co-operative with playmates Able to plan construction and make believe activities Takes turns in longer conversations Uses language to gain information, negotiate, discuss feelings / ideas and give opinions

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Ask about:

- What are the family's concerns?
 - Are the family concerned about a particular diagnosis?
- Do nursery or school have concerns?
- Who noticed the difficulties?
- Pattern of progress
- Associated features or other abnormalities
- Family history of speech and / or language delay
- Detailed antenatal and birth history
 - Drugs in pregnancy (eg, sodium valproate, illicit substances)
 - Early-pregnancy bleeding
 - In vitro fertilisation (IVF)
 - Type of birth
 - Prematurity
 - Low birth weight
 - Any complications
 - Early post-natal history
 - Any significant factors
 - Post-natal depression
- Any feeding issues
 - Breast- or bottle-fed
 - Any difficulties with transition to lumpy foods or solids
 - Varied diet now?
- Educational level of the parents or carers
- Childhood illnesses
- Family size
- Motor development, attention, play, and social interaction
- Any other languages in the home or environment?
 - Bilingual
- Have hearing and vision been checked?
 - Examine the ears to exclude outer/ middle ear pathology / anomalies. Audiologists do not always automatically examine the ears in an initial hearing screen.
- Social history
 - Who looks after the child?
 - Screen time (TV, iPad, DVD, etc. even if switched on in the background)
 - Exposure to language and social situations
 - Who lives in the home?
- Have the family tried any interventions already?
 - Have there been any changes as a result?

- What other professionals are involved with the child?
 - Independent therapists, social care

**If prescribing sodium valproate to a young person, be aware of the risks and ensure contraception is being used to protect against becoming pregnant. More information can be found on the Medicines for Children website.*

To identify children at greater risk, ask about:

- Prenatal, perinatal or post-natal adverse events
 - Drugs, illnesses, details of delivery (see examples in Essential History above)
 - If significant factors are reported by the mother it may help to obtain original medical records (with consent)
- Family history
- Developmental disorders
 - Epilepsy
 - Developmental delay
 - Any family history concerns even if not formally diagnosed (eg, 'being quirky')
- Academic achievement
- Social functioning – See Table 2
- Social history

Age	Area	Warning Signs and Red Flags
0-12 months	Play	<ul style="list-style-type: none"> ▪ Restricted repertoire of skills ▪ Does not follow objects that fall ▪ Little purposeful play ▪ Reduced or absent imitation ▪ Reduced object permanence ▪ No interactive games eg, 'peek-a-boo'
	Sensory motor	<ul style="list-style-type: none"> ▪ Does not reach for or swat at objects ▪ Overly reactive to stimuli ▪ Extreme irritability
	Socioemotional	<ul style="list-style-type: none"> ▪ Overly clingy ▪ No apparent attachments ▪ No awareness of danger ▪ Difficulty modulating emotions ▪ Reduced range of affect
	Speech and language	<ul style="list-style-type: none"> ▪ Difficulty sucking and feeding ▪ Averts gaze ▪ Fails to make variety of sounds ▪ Fails to respond to name ▪ Undifferentiated crying
12-24 months	Play	<ul style="list-style-type: none"> ▪ No container play (putting things in / taking things out of containers) ▪ No early problem-solving ▪ Does not go to adults for help ▪ Very rigid play ▪ Focuses on individual parts of toy, such as wheels of car ▪ Does not include adults in play; prefers to play alone ▪ No interest in playing symbolically ▪ No spontaneous or pretend play ▪ Restricted range of interests
	Socioemotional	<ul style="list-style-type: none"> ▪ Short attention span ▪ Does not seek to engage with others ▪ Tunes out ▪ Avoids eye contact

	Speech and language	<ul style="list-style-type: none"> ▪ No specific "mama" or "dada" ▪ Does not point ▪ Cannot follow simple directives without gesture ▪ Reduced vocabulary ▪ No word combinations
24-36 months	Play	<ul style="list-style-type: none"> ▪ Little or no symbolic play ▪ Not able to sequence events in play ▪ Not interested in playing with peers ▪ Restricted range of skills and interests ▪ Lines up toys rather than playing with them
	Speech and language	<ul style="list-style-type: none"> ▪ Avoids eye contact ▪ Reduced communicative intent ▪ Difficulty following directions ▪ Lack of verbal expression ▪ Reduced reciprocity and turn taking ▪ Talking better than listening ▪ Poor conversation skills
3-4 years	Play	<ul style="list-style-type: none"> ▪ Cannot take turns or play cooperatively with peers (prefers solitary play) ▪ Little interest in toys ▪ Insists on sameness in routine ▪ No idea how to approach new skills or toys ▪ Cannot use blocks to build simple structures
	Language	<ul style="list-style-type: none"> ▪ Does not engage in back-and-forth communication for purely social reasons ▪ Does not talk about what communicative partners are talking about ▪ Uses language that is repetitive or recycled from other contexts
4-5 years	Play	<ul style="list-style-type: none"> ▪ Cannot follow simple rules in play ▪ Prefers solitary play ▪ Insists on sameness in play ▪ Reacts strongly to change ▪ Does not engage in symbolic or imaginative play
	Language	<ul style="list-style-type: none"> ▪ Weak ability to hold a conversation ▪ Cannot tell a personal narrative ▪ Difficulty with sequencing information ▪ Uses language that is repetitive or recycled from other contexts

'Red Flag' Symptoms and Signs

Delays in speech and language are often the first indication of the presence of a developmental disorder or disability.

Ask about:

- Regression or loss of skills (including hearing)
- Consistent or inconsistent errors in speech

Look for:

- Social interaction skills
- Non-verbal communication
- Dysmorphic features
- Abnormal neurology
- Delay in other developmental areas
- Abnormal head circumference
- Neurocutaneous lesions
- Features from history or exam suggestive of neglect and / or abuse
- For warning signs by age see Table 2

Differential Diagnosis / Conditions

Primary speech, language, and communication presentation:

- Hearing impairment
 - Always make sure an audiology assessment has been carried out, even if there are no obvious concerns
- Primary language delay or disorder
- Primary speech delay or disorder
- Developmental verbal dyspraxia (DVD)
- Dysfluency (eg, stammering)
- ASD
- Voice disorder
 - Possible causes include:
 - Vocal nodules
 - Infections
 - Papilloma
 - Reflux
 - Vocal fold scarring or tumour
 - Laryngeal web

Causes of mixed global delay, or regression:

- Developmental disorder or disability
- Learning disability
- Cerebral palsy
- Cranial nerve palsy
- Cerebral malformations or structural brain abnormalities
- Chromosomal abnormalities
- Intra-uterine infections
- Traumatic brain injury
- Stroke
- Acquired epileptiform aphasia (Landau-Kleffner syndrome)
- Progressive encephalopathies:
 - Hypothyroidism
 - Aminoacidopathies
 - Lysosomal storage disorders
 - Mitochondrial disorders
 - Neurocutaneous disorders
 - Grey or white matter disorders

Behavioural and other conditions / presentations:

- Selective mutism
- Communication difficulties can be associated with externalising disorders
 - Attention-deficit hyperactivity disorder
 - Oppositional defiant disorder
- Communication difficulties can be associated with internalising disorders
 - Anxiety disorders
 - Depression
- Neglect and / or abuse

Investigations

In primary care consider whether a period of review or a referral to another healthcare professional would be useful.

To be undertaken by specialist practitioners:

- Paediatric Audiology Team:
 - Assess hearing (in spite of clear responses to the newborn hearing screen)
- Speech and Language Therapy (SLT) Team:
 - Assess language and / or speech
- Autism Team:

- Autism assessment if this suspected
- General Paediatric / Paediatric Neurodisability / Neurology Team(s):
 - Consider metabolic testing and / or brain magnetic resonance imaging (MRI) scans and electroencephalograms (EEGs) where there is evidence of regression or in the presence of other clinical signs and symptoms
- Paediatric ENT and / or Speech and Language Therapy (SLT) Team(s)
 - For voice disorders

Treatment Approach

- Some delays are developmental and will resolve in time; others will need intervention
 - Bilingually-exposed children may go through a short period of language loss, especially if recently exposed to a new language
 - However, this tends to be transient and care should be taken before attributing speech delay to this reason
- Once a speech and language delay is suspected, refer for diagnostic evaluation to:
 - Determine the extent of impairment
 - Characterise the nature of the disability
 - Suggest strategies for intervention
- If autism is suspected, refer for diagnostic evaluation
- Where an underlying medical condition is diagnosed, appropriately tailored therapy will need to be considered

When to Refer

See Tables 1 and 2 and refer to Audiology and Speech and Language if not meeting expected milestones and / or demonstrating 'red flags'.

- See [Talking Point](#) for a simple-to-use questionnaire which will highlight difficulties and provide suggestions or reassure parents.

Refer to specialist practitioners (eg, Speech and Language Therapy Team) if:

- Stuttering (dysfluency):
 - Persistence for > 6 months
 - Family history of stuttering
 - Awareness of difficulty
 - Anxiety or frustration related to speaking
 - Dysfluent speech is more than 10% of the overall communication
- Note that 25% of children aged between 2.5–5 years old go through a period of stammering, and according to research 75% of these resolve, naturally

Refer to specialist practitioners (eg, Autism Team) if:

- This diagnosis is suspected based on social communication difficulties and the presence of stereotypical, rigid, routinised behaviours, rituals, and interests
- Children under 3 years old with regression of speech and / or socialisation
 - See Autism spectrum disorder in under 19s: recognition, referral and diagnosis [[NICE clinical guideline CG128](#)]

Refer to specialist practitioners (eg, Paediatric / Paediatric Neurology Team(s)) if:

- Older than 3 years old with regression in language or a child of any age with motor regression
- History or clinical features suggest an underlying medical cause, or if you have concerns about safeguarding
 - See Autism spectrum disorder in under 19s: recognition, referral and diagnosis [[NICE clinical guideline CG128](#)]

‘Safety Netting’ Advice

- Regression or new concerning features should lead to parents or carers seeking further advice promptly
- Parents should seek further advice if they note new clinical features
- If a child is acutely unwell then parents or carers should seek immediate medical advice
- If a child has noisy breathing (stridor) parents or carers should seek medical advice

Patient / Carer Information

****Please note: whilst these resources have been developed to a high standard they may not be specific to children.***

- [Talking Point](#) (Website)
- [I CAN](#) (Website)
- [The Communication Trust](#) (Website)
- [Speech sounds factsheet](#) (PDF), I CAN
- [Speech and language therapy](#) (Video), NHS choices
- [Reaction to sounds checklist](#) (pdf), NHS choices

Resources

National Clinical Guidance

[Autism spectrum disorder in under 19s: recognition, referral and diagnosis](#) (Webpage), NICE clinical guideline CG128, National Institute for Health and Care Excellence.

Suggested Resources

****Please note: these resources include links to external websites. These resources may not have national accreditation and therefore PCO UK cannot guarantee the accuracy of the content.***

Further information on specific conditions can be found here:

[Stages of Speech and Language Development Chart](#) (PDF), Talking Point

[Royal College of Speech and Language Therapists](#) (Website)

[Developmental Verbal Dyspraxia Q&A](#) (PDF), Nuffield Speech Clinic

[How stammering can affect you](#) (Web page), NHS choices

[Selective mutism](#) (Web page), NHS choices

[Paediatric Voice Disorders](#) (Web page), The Voice Foundation

[National Autistic Society](#) (Website)

[I CAN](#) (Website)

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