PART I

What You Should Know and How to Get Help

1

Speech, Language, and Listening

How They Develop

When you said "Good morning" today and someone answered in kind, the exchange didn't strike you as particularly complicated. In fact, you were using your highly developed powers of speech, language, and listening—all part of your hard-won ability to communicate. As a parent, it is important to remember that communication is not always as easy for your child as it is now for you as an adult. After reading this chapter, you'll have a deeper appreciation of just how complex a child's path to effective communication really is.

Children start on the road to successful communication as soon as they are born. However, they progress at different rates. Some advance seemingly overnight from speaking single words to forming complete sentences that make sense. Other children take a slow, steady course with small steps, gradually adding words and building up to sentences. Often, both types of travelers reach their destination—learning to communicate equally well—in their own time, without any special attention. Members of a third group, however, need a little extra help along the way.

How is your child's communication journey going? Is he or she traveling more or less in step with one of the first two groups; that is (the dreaded question), is he or she "progressing normally"?

When discussing childhood development, the word *normal* projects a powerful aura of good and right, perhaps because *abnormal* is not a label we want attached to our children. Please understand, however, that *normal*, as used by educators and therapists, is a nonthreatening statistical

term, better defined as *typical* or *average*. Developmental standards for what the professionals call normal have been established after years of observation and study of children who are considered to be free of such handicapping conditions as deafness or cerebral palsy. Indeed, within the parameters of normal, you will find a wide range of proficiency.

How can two children who exhibit different language abilities both be considered normal? Because, even within each age group, each child has an individual developmental timetable. For example, Roberto may acquire the language behaviors of the 2-to-3 age group just before his second birthday, whereas Mark may only be beginning to display those behaviors as he approaches his third birthday. Both of these boys fall into the normal category. Just because two children of the same age have markedly different communication patterns does not mean that one of them has a problem, particularly in the younger age groups.

Later in this chapter, I explain how children learn to communicate. Then I detail the important communication milestones for the many age groupings, ranging from birth to adolescence. First, however, we need to share a common vocabulary. Just as we "pros" have our own sense of normal, so, too, do we have our own definition of *communication*. Actually, our communication is much like the everyday variety. It is best understood through the three central skill components: speech, language, and listening. Knowing what's involved in these three areas is the first step in understanding what difficulties your child may be having, and thus is the beginning of being able to help.

What Is Speech?

Speech refers to the sounds that come out of our mouth and take shape in the form of words. You realize just how complex the speech process really is when you study it or if you lose the ability to produce speech effortlessly.

Many things must happen in order for a child to speak:

- There must be a desire to communicate.
- The brain must have previously heard and learned words in other contexts.
- The brain must create an idea it wants to communicate to someone else.
- The brain must then send that idea to the mouth.
- The brain must tell the mouth which words to say and which sounds make up those words. Intonation patterns and accented syllables must be incorporated.

- The brain must also send the proper signals to the muscles that produce speech: those that control the tongue, the lips, and the jaw.
- These muscles must have the strength and coordination to carry out the brain's commands.
- The lungs must have sufficient air and the muscles in the chest must be strong enough to force the vocal cords to vibrate. The air must be going out, not in, for functional speech to occur.
- The vocal cords must be in good working condition for speech to sound clear and be loud enough to be heard.
- The words produced must be monitored by his hearing sense. This helps him review what is said and hear new words to imitate in other situations. If words are not heard clearly, speech will be equally "mumbly" when reproduced.
- Another person must be willing to communicate with the child and listen to what he says. If no one is listening and reacting to his speech, he will not be motivated to speak.

For most children, these processes happen naturally, if proper stimulation occurs, without conscious thought. For some children, this sequence breaks down. Once the source of the breakdown is identified, these steps can be facilitated in a direct and conscious manner.

What Is Language?

Language refers to the content of what is spoken, written, read, or understood. Language can also be gestural, as when we use body language or sign language. It is categorized into three areas: receptive, expressive, and social. The ability to comprehend someone else's speech or gestures is called *receptive language.* The ability to create a spoken message that others will understand is called *expressive language.* The way in which language is used with others is called *social language* or *pragmatics*.

In order for children to understand and use spoken language in a meaningful way, these things must happen:

- Their ears must hear well enough for the child to distinguish one word from another.
- Someone must show, or model, what words mean and how sentences are put together.
- The ears must hear intonation patterns, accents, and sentence patterns.
- The brain must have enough intellectual capability to process what those words and sentences mean.

- The brain must be able to store all this information so it can be retrieved later.
- The brain must have a way to re-create words and sentences heard previously when it wants to communicate an idea to someone else.
- Children must have the physical ability to speak in order for the words to be heard and understood when used.
- Children must have a psychological or social need and interest to use these words and communicate with others.
- Another interested person must reinforce attempts at communication.

Children with receptive language problems may have *auditory (listening) disorders* as well, since listening is the most common way we receive language information. It is our brain's input. A child with a receptive language problem may find activities such as listening to classroom lectures, comprehending stories heard or read, following conversations, or remembering oral directions confusing and frustrating at times.

If a child's receptive language is not developed, the entire language learning process stalls before it even begins. Parents tend to be more concerned if their child isn't talking the way they expect, but speech-language pathologists also want to find out if the child is hearing clearly and understanding language. If not, meaningful speech (expressive language) is not going to develop efficiently. That is why "speech" therapy often focuses on strengthening receptive language skills, even if the concern is that the child isn't talking properly.

Speech is the physical process of forming the words; expressive language is what that speech creates—the output, or the product. Even if we have the capability to produce understandable speech sounds, we cannot communicate if what we say is meaningless or confusing to others. We must use words that others can comprehend and put them together in sentences that have order and flow. These words and sentences can be spoken, written, or gestured. Children with expressive language problems may use words incorrectly (e.g., "He falled down"); they may have difficulty organizing and sequencing their thoughts, as well as learning the names of things; and they may dislike engaging in lengthy conversations. It is also not uncommon for children with expressive language problems to have difficulty pronouncing words.

Many children with language problems have difficulty with both receptive and expressive language. They may also possess weak listening skills, since strong listening abilities are needed to receive and develop language.

What Is Listening?

Listening is an active process of hearing and comprehending what is said. As with speech, several steps must occur for a child to listen to speech:

- The child must attend to the speech signal.
- Sound waves must carry the spoken words to his ears.
- The sound must travel through the outer ear canals without obstruction.
- The sound must then pass through the eardrum and the middle ear without being distorted by fluid from colds, infection, or allergies.
- It then must travel through the inner ear, which must be functioning properly as well.
- This sound must travel via the auditory nerve to the brain.
- The brain must try to compare what it hears to previously stored sounds and words to make sense of the message.
- The brain must take in visual information (e.g., lip movements, facial expressions).
- The brain must hold on to the information long enough to process it.

Good listening is as critical a part of the communication process as are speaking clearly and choosing the right words, because communication is a two-way process. One person sends a message, and, ideally, someone else receives it the way it was intended. Who likes to talk to someone who doesn't pay attention to what is said? Who enjoys repeating things over and over without the desired response? Who wants to be misunderstood? No one, of course. A child with a listening disorder will certainly test your patience, but she is probably even more frustrated than you are.

Your child's frustration may translate into behaviors that can be misunderstood as ignoring you, not paying attention, or stupidity. A child with listening problems will have difficulty coping in a classroom situation, because so much of the information teachers give to students must be heard. With the right help, however, a child can learn to cope and to improve listening skills.

If the brain can't stay focused on the task of listening long enough to translate the information, the message will be lost. This is what happens with an *auditory memory* problem. With an *attention deficit* problem, the brain works on too many projects at once and can't stay with a message long enough to finish comprehending it. If the brain has difficulty storing old information, it will not know how to integrate the new information or make sense of it. An *auditory comprehension* or *auditory processing* problem may result. These are examples of just a few listening disorders.

How Do Children Learn to Communicate?

You may think communication begins with a child's first words, but a great deal of preparation must take place before that first word is uttered.

Communication Begins with You

Babies need someone to interact with them and encourage them in a loving way. Placing a baby in front of a television exposes a child to some language, but it's a passive process. A baby needs to be actively engaged with people in order for the communication experience to be meaningful. I can't overstate the importance of a parent's interest in and interaction with a child, from infancy on, in developing a child's communication skills.

The receptors in a child's brain need to be stimulated, particularly during the early learning years. These receptors are stimulated when the child is touched, spoken to, and shown pictures, objects, places, and people. Without proper nurturing, a child may experience learning delays or speech, language, or listening disorders.

In many cases, a parent's stimulation can make the difference between a child with below-average communication skills and one with above-average communication abilities. Information must have a way of getting into the brain. If no one helps to put information in, the brain will not be adept at processing it once information is received in school. *Unfortunately, many children do experience communication problems, regardless of the amount or quality of early stimulation.*

The Communication-Learning Process

Babies practice using their brains to produce the sounds that come out of their mouths. For infants, the first sounds are crying. As infants' lungs and mouths develop strength and control, they can make the cries sound the way they want. They learn to intensify their cries when they are really upset and to temper them when they are just uncomfortable or hungry.

At 3 to 6 months of age, babies experiment with their mouths and find they can make some babbling sounds, which often elicit a lot of attention from the people around them. If they get noticed, they will do it more. They have even more fun when people repeat the sounds back to them. Babies listen to the words people say and try to figure out what they mean.

Sometimes a problem in one of these areas can affect a child's rate of speech and language development. For example, when a child who has had frequent ear infections coupled with a delay in speaking

is brought to me, I might suspect that some residual fluid is lingering in the middle ear. This problem needs to be medically resolved in order for meaningful speech to occur. I would urge the parents to take their child to an audiologist and an ear, nose, and throat doctor. If eating and walking were difficult for the child in addition to pronouncing words, a motor problem (difficulty moving muscles normally) might be the underlying culprit. In this case, I would refer the family to a physical or occupational therapist, or even a neurologist.

Your daughter or son must always be seen in terms of the "whole child." By focusing exclusively on individual parts of the child, we cannot know if all the other parts are doing exactly what they should. That is why team evaluations are such a good idea, particularly for infants and preschool children.

Speech, Language, and Listening Milestones

Your child will probably begin to exhibit the following behaviors at the ages shown in the following lists. Use these as a general guide. As stated before, every child is unique. If some skills have not yet developed, read chapter 2 to see if you need to consult a specialist at this time.

Birth to 3 Months

- Reacts to sudden noises by crying or jerking body
- Reacts to familiar objects, such as a bottle, or familiar people, such as parents
- Differentiates the cry of pain from the cry of hunger
- Coos; begins to form prolonged vowels with changes in intonation ("Ahhhh-AH-ahhh!")
- Watches objects intently

3 to 6 Months

- Begins to babble, using syllables with a consonant and a vowel ("Baa-ba-BA-ba-ba!"), and uses intonation changes
- Laughs and shows pleasure when happy
- Turns the head to see where sound is coming from
- Reacts when his or her name is spoken
- Uses a louder voice for crying and babbling than before
- Shows delight when bottle or breast is presented

6 to 9 Months

- Begins to comprehend simple words such as *no,* and looks at family members when they are named

- Babbles with a singsong pattern at times
- Controls babbling to two syllables, which sometimes sounds like words such as *Mama,* although meaning is, typically, not yet understood by the baby
- Understands facial expressions and reacts to them
- Attempts gestures to correspond to "Pat-a-cake" and "Bye-bye"
- Shakes head to show *no*
- Uses more and more sounds when babbling, such as syllables with *da, ba, ka, pa, ma,* and *wa*
- Typical utterances at this age: "Ga-MA-ma-ga!"

9 to 12 Months

- Has fun imitating simple sounds and babbling
- Begins to say "Mama" or "Dada" or another word, sometimes
- Begins to understand that words represent objects
- Jabbers loudly and will try to "talk" to you with some intent, even though the speech is not meaningful yet
- Responds to music
- Gives or seeks a toy or a common object when requested
- Imitates common animal sounds
- Gestures and whines to request something
- Looks directly at the source of sound immediately
- Will watch and imitate what you do—loves your attention!
- Typical utterances at this age: "Ah buh-BUH-buh . . . ooooh!"

12 to 18 Months

- Understands 50 to 75 words
- Uses 3 to 20 "real" words, even if they are not produced completely clearly
- Will point to the right place or answer ("Bed") when asked questions ("Where's your pillow?")
- Points to known objects when named, such as in a photo book ("Where's the cat?")
- Points to a few simple body parts, such as eyes and nose ("Where's your nose?")
- Babbles and uses nonsense words while pointing
- Follows simple one-step commands
- Makes animal noises when asked ("What does the cow say?")
- Uses words like *more, all gone, mine,* and *down*
- Imitates words
- Wants to show you things and share experiences

- Pronounces some understandable words
- Typical utterances at this age:
  "Mama!"
  "No!"
  "Daddy, doppit!" (stop it)
  "Appuh" (apple)
  "Gimme da!" (Give me that.)
  "Baw" (ball)
  "Too-duh" (toothbrush)

18 Months to 2 Years

- Comprehends about 300 words
- Uses about 50 recognizable words, mostly nouns
- Speaks often with mostly "real" words now, but still babbles and uses jargon some of the time
- Uses language to get needs met ("I want . . . "), to protest ("No, Mommy!"), to exclaim ("Uh-oh!"), and to entertain parents or seek a reaction, often with "silly talk"
- Wants you to read the same stories over and over again or wants to play the same game with you ("More!" or "Again!")
- Can point to pictures in a storybook when asked simple questions such as "Who's sleeping?," "Where are the shoes?," "Who has a balloon?"
- Uses a rising intonation pattern to show a question, even if the words are mostly jargon. The question is directed to someone specific much of the time.
- Nods or shakes head to answer yes/no questions and looks for your response when asked a question such as "Do you want more milk?" rather than simply grabbing the desired item when it's offered
- Can nod/shake head or tell you yes/no when you hold up a common, familiar object such as a spoon and ask a question about its name, such as "Is this a ball? (child shakes head); "Is it a *cat*?" (child says no); "Is it a *spoon*?" (child nods or says yeah/yes)
- Can follow two related commands, such as "Come here and give me your cup" if in the mood or attending to you (cooperation is variable at this stage)
- Points to the body parts of other family members or stuffed animals in close proximity when asked ("Where are Mommy's eyes?," "Where's the cat's nose?"). Cooperation and attention may be variable, but the key here is that your child differentiates "Mommy's eyes" from his or her own eyes, which requires attending not only to the word *eyes* but also to both the location and the body part.

- Uses language functionally and in situational contexts, not just for rote naming of objects or letters in a familiar book. For example, your child spontaneously says "cow" when playing with a toy cow, not just when looking at flash cards or at a book he has "learned."
- Begins to use some verbs (*eat, want, go, sleep, gimme*) and adjectives (*big, little*) in addition to nouns
- Joins two related words to make one word, such as "Geddown!" for "Get down" or "Stoppit" for "Stop it."
- Starts to ask the names of things that are unknown, such as, "What dat?" or "What dis?" or "Dis?" with an accompanying finger point and rising intonation
- Speaks at an appropriate volume (e.g., not whispering or mumbling so much that speech is rarely distinguishable, though it's still often very difficult to understand)
- Can answer "What's your name?"
- Joins in nursery rhymes and songs, but often gets just a word or two at the right time
- Attends to your facial reactions—shows unhappiness (or delight if in a devilish mood) if you are upset or mad, and often checks to see what you think of his actions. For example, he bangs a pan loudly with a spoon, then stops and looks at you to see your reaction.
- Speaks with many pauses between words; speech may be choppy and halting much of the time
- Typical utterances at this age:
  "Dawddie bad!" (Doggie bad.)
  "Go 'way!" (Go away.)
  "No, Mommy."
  "See . . . horsey . . . Daddy . . . horsey cry!"
  "Danwit . . . goo' . . . Mommy." (Sandwich good, Mommy.)
  "Nigh'-nigh' now?" (Night-night now?)
  "Go dore?" (Go store?)

2 to 3 Years

- Understands about 900 words
- Uses about 500 words
- Speech is understandable 50 to 70 percent of the time
- Usually engages in eye contact during conversations with family members
- Uses language to seek information ("What is it?"), to express frustration or reluctance ("I don't wanna go!"), to clarify what was heard

("Mommy, we go store now?"), and to make observations about what's happening or what she sees ("That's a big cat!")
- Understands *my/your* ("Where's *my* foot? Where's *your* foot?") and makes the association with the person it is referencing without you pointing or using the child's name to clarify
- Makes frustrations known more with words and less with temper tantrums and crying
- Can find an object you describe by function ("Which one can you read?") from a group of three to four common objects, such as an apple, a car, a book, and a doll
- Wants to show you things and get your attention constantly, using words ("Look . . . Daddy . . . in dat little car!")
- Answers simple questions beginning with *who, where,* and *what* ("Who drives a fire truck?") about picture books or general knowledge
- Understands and uses prepositions such as *in, on,* and *under*
- Begins to ask yes/no questions ("It raining?")
- Understands basic categorical words ("Can you find an *animal*?")
- Prefers to play with other people much of the time and seeks them out for interaction if available; parallel play typical in the 2-year-old (side by side with others—watching what they do, copying) blossoms into more interactive play by age 3
- Uses toys for simple imaginative play (driving a car, giving food to a teddy bear, having a doll sleep on a bed) instead of just throwing them, stacking them, or swinging them around
- May talk to self while playing, but will also relate to nearby children and adults without prompting
- Begins to use auxiliary verbs such as *is* ("Ball is red.")
- Begins to use past tense verbs (*walked, kicked*)
- "Stutters" when excited sometimes, by repeating whole words ("I-can-I can-I-can play now?")
- Pronounces these sounds consistently in words: *m, n, p, f, b, d, h, y, m*
- Typical utterances at this age:
  "Daddy's tar so big!" (Daddy's car so big.)
  "Mommy put dat downdairs?" (Mommy put that downstairs?)
  "Oh no! My-my-my jeth iddirty!" (Oh no! My dress is dirty.)
  "You wanna'nana, An' Pat?" (You want a banana, Aunt Pat?)
  "I doe wannit!" (I don't want it.)
  "Mattchew's yeg beedin'!" (Matthew's leg bleeding.)
  "Duh wabbit eated duh cawit!" (The rabbit eated the carrot.)

3 to 4 Years

- Begins to use *is* at beginning of questions
- Understands about 1,200 words
- Uses about 800 words
- Uses eye contact more consistently during conversations
- Asks many questions, usually *what* or *who* questions
- Understands and uses pronouns such as *his/her, he/she, we/they* ("Give this to *him*.")
- Understands positional words such as *in front, behind, up, down, top, bottom*
- Starts to use *s* on verbs to show present tense ("He *runs*.")
- Uses contractions *won't* and *can't*
- Uses *and*
- Uses plurals consistently (*books, toys*)
- Uses *are,* or contracted form, with plural nouns ("Kids're playing outside.")
- Initiates conversations, making comments or observations directed to someone specific
- Asks many questions, sometimes the same one several times in a few minutes
- Understands negation ("Which one *isn't* on the bed?")
- Follows a simple plot in a children's storybook; can look at the pictures and tell you the story in a simple way
- Sits down and does one activity for ten to fifteen minutes
- "Stutters" less frequently
- Pronounces the beginning, middle, and ending sounds in words, except for consonant blends (e.g., *bl, fr, cr*)
- Speaks understandably 70 to 80 percent of the time
- Uses *k* and *g* sounds correctly, but *s* may still be somewhat "lispy" sounding; *r* and *l* may be distorted; *v, sh, ch, j,* and *th* still may not be used consistently
- Engages most often in motor-based play (taking turns on the slide and ride-on toys) and building (towers, Legos, Play-Doh), but is drawn to participate and copy what peers are doing
- Uses language to negotiate turn-taking ("First I go, then it's your turn") and influence outcomes ("I'll clean up later! I'm tired now!")
- Typical utterances at this age:
  "The bider ith cwawlin' up duh twee!" (The spider is crawling up the tree!)
  "Dad, the tiddy-tat breaked the diss." (Dad, the kitty-cat breaked the dish.)

"Is Mom-Mom comin' today?"
"Where's the hop-sital?" (Where's the hospital?)
"Yesterday my dog Wainbow ate six bixkits." (Yesterday my dog Rainbow ate six biscuits.)

4 to 5 Years

- Comprehends 2,500 to 2,800 words
- Uses 1,500 to 2,000 words
- Speaks clearly 80 to 90 percent of the time
- Uses language to retell events and reminisce about things that happened in the past ("Mommy, remember when we went to Grandma's and she made banana bread?"), to wonder ("Why is the sky blue?"), and connect two ideas or events ("After we went to the game, we went out for pizza.")
- Can look at pictures in a storybook and make up a simple story or retell it, with mostly complete sentences ("Then the monkey ate the banana. The monkey said, 'Hey, where's my banana?'")
- Makes up stories, sometimes with stuffed animals, dolls, or action figures ("Judy's cold, Mommy. I need to find her blanket! Here you go, Judy. Okay, Judy, what should we get for Bear's birthday?")
- Uses all pronouns (*he, she, I, you, them*) correctly
- Describes what you do with common objects, such as a hat ("What do you do with a hat?" "You wear it on your head!")
- Uses past, present, and future tenses of regular verbs (*watch, watched, will/gonna watch*)
- Uses many irregular verbs (*drank/ate*) and irregular nouns (*teeth, feet*) but sometimes mixes up the correct forms ("She falled down.")
- Follows commands with three to four critical elements ("Find the yellow truck and put it behind your chair.")
- Knows common opposites such as *big/little*, *heavy/light*
- Likes to chitchat with others throughout the day
- Repeats a sentence with 10 to 12 syllables, such as, "The big boy sat on the green chair by the door."
- Listens and attends to stories, conversations, and movies
- May mispronounce *s, r, th, l, v, sh, ch, j,* and consonant blends such as *st*
- Typical utterances at this age:
  "Daddy, I wanna go to Joey's house after lunch 'cause he's got this great new truck I wanna play wif [with]."
  "Is this your pocketbook? Could I thee [see] what you have inside it? Do you have any gum in there?"

"I found all these wed [red] marbles on José's floor, Mommy. Can I have them? I wanna play with them for a little while."

5 to 7 Years: The Refinement Years

- Refines pronunciation, sentence structure, word use, attention span for listening, and memory for directions
- Increases vocabulary; incorporates new words into spontaneous speech
- Retells stories; explains experiences more, in a cohesive, sequential manner and with greater elaboration
- Participates in group discussions and takes turns in conversation; comments are more relative to topic being discussed
- Begins to learn language relationships: opposites (*big/little, sad/happy*), synonyms (*big/large, sad/unhappy*), associations *(bread/butter, pencil/eraser*), and classification (*shirt/pants/socks* belong in the category of *clothing*)
- Typical utterances at this age:
  "Last week Daddy took me and Levonne to the Bronx Zoo."
  "You shoulda seen the monkeys and elephants!"
  "On the way home, we stopped at the hospital to see Mrs. Stro . . . strogin . . . hausen . . . something like that—she's Daddy's friend from work."
  "She has 'amonia and she's really sick, so she has to stay in the hopsital for another week."

When children begin school, language is translated into written symbols through spelling and is comprehended through reading. Written words are developed into sentences and stories. Children whose oral language is deficient (beyond the typical errors a child of this age displays) are at risk for reading, writing, and spelling problems. However, teachers are trained to teach children in a way that best suits their individual needs. So although communication problems may present a challenge, they certainly can be managed with a little bit of teamwork, creativity, and patience!

7 Years to Adolescence

- Possesses a functional and abstract language system
- Shows age-appropriate skills in reading, writing, speaking, and listening
- Shows less vagueness and groping for words
- Joins sentences to form coherent, descriptive thoughts and stories; listeners are not left confused

- Masters word relationships (synonyms, antonyms, association, classification, etc.)
- Pronounces multisyllabic words correctly once practiced a few times
- Comprehends information heard and read when adequately taught and explained
- Understands and uses more idioms (*"pain in the neck," "out of your mind"*)
- Understands plots with increasing depth and complexity when read or watched in a movie or television show
- Typical utterances at this age:
  "I really don't understand how they put this model together, Mom."
  "Do you think anyone will notice if I wear my old shirt to the basketball game?"

Essentially, a child's language at this age mirrors an adult's, but with more simplicity.

These, then, are the milestones, the points of progress children should reach in their own style, at their own pace. The next chapter details the warning signs that signal your child may be having more than normal trouble in developing communication skills. Read on to find out how to recognize these signals and what to do to help your child deal with special problems.