



Down Syndrome (trisomy 21)—a chromosomal abnormality caused when a person has three copies of chromosome 21 rather than two. Less common chromosomal abnormalities that can cause Down Syndrome are translocation and mosaicism.

Common physical characteristics of children with Down Syndrome include shortened limbs and fingers, a small head with a flattened back, slanted eyes with a skin fold over the eyelids, a small mouth with protruding tongue, and palms with a single crease known as a simian crease.

Children with Down Syndrome have subaverage intellectual functioning and limitations in communication, self-care, social, academic, leisure, and work skills. They also have generalized low body tone, especially of trunk flexors (the belly muscles), hips, limbs, and fingers. In addition, they also have poor oral facial muscle tone and often experience difficulty with sucking.

Children with Down Syndrome often experience cardiovascular abnormalities, obesity, gastrointestinal problems, and visual abnormalities, and are at increased risk for leukemia. They also are at risk for partial dislocation of their upper spine.

Activity Suggestions

For Your Baby

- Place your baby on his belly to encourage the development of head control and the muscles of arms, hips, and back.
- Place your baby on his side to encourage eye-hand coordination, bringing his hands together, and hand-to-mouth movement. Do this on both sides equally.
- Place your baby on his back to help develop the muscles on the front of his body.
- Encourage your baby to play in a sitting position.
- Provide play experiences for the following skill areas: visual tracking, grasping, reaching, releasing, bilateral/midline, and eye-hand coordination.
- Try to provide sensory rich experiences (i.e., activities or toys that stimulate your child's vision, hearing, movement, and touch sensory systems).
- Encourage your baby to play with mobiles, rattles, basic cause-effect toys, and balls.
- Play music while your baby plays.
- Use black and white objects and pictures as well as colorful objects to encourage your baby to look at or visually follow objects as you move them from left to right and up and down.
- Give your baby a variety of textured toys and objects to touch.
- Encourage your baby to reach for objects placed in front of and above him, and on both sides. Encourage him to reach for objects across his midline (e.g., reaching for an object on his left side with his right hand).
- Encourage hand-to-mouth play experiences and mouthing of objects.
- Encourage activities that bring his hands together (e.g., clapping, banging two objects together, holding one object with both hands).
- Give your baby opportunities to release objects into large containers.
- Encourage activities that help develop isolation of finger movement (e.g., poking, picking up small objects).



Down Syndrome

For Your Toddler

- Provide play experiences to help develop grasp, release, bilateral/midline, eye-hand coordination, manual dexterity, and self-care skills.
- Encourage your child to play with household items, buttons, lids, containers, balls, nesting cups, books, crayons, blocks, shape objects, puzzles, and more complex cause-and-effect toys.
- Encourage your child to play with objects that involve in/out and on/off concepts.
- Continue to provide sensory rich experiences (i.e., sand and water play, painting, play dough).
- Encourage your child to release small objects into narrow-necked containers.
- Encourage your toddler to grasp writing utensils and scribble on paper. Eventually have her imitate vertical and horizontal strokes, circular scribbles, and cross marks.
- Provide opportunities for your child to stack blocks of varying sizes.
- Encourage your toddler to use both hands together in activities such as turning pages of books, using scissors, and stringing large beads or other objects on thick string.
- Have your child help dress herself (e.g., removing and putting on shoes, unzipping and zipping zippers, buttoning and unbuttoning large buttons, pulling up or down pants).

For Your Preschooler

- Continue to provide play experiences to help develop eye-hand coordination skills, bimanual and manual dexterity skills, and self-care skills.
- Have your child play with sand and water toys, puzzles, Legos®, dress-up clothes, puppets, blocks, balls, a workbench with tools, and cups and dishes.
- Have your child copy and cut out different shapes.
- Encourage your child to play games with everyday life skills, do art activities (i.e., cutting and pasting), and string beads, including stringing small beads on thin strings.
- Encourage your child to color pictures.
- Give your child the opportunity to continue to increase his independence with dressing skills.
- Encourage your child to participate in family household tasks.