

Learning Braille



**Every child plays differently. Play can be fast or quiet, social or solo, structured or spontaneous. It can look joyful and confident, or cautious and exploratory. And for many children, the way they play is shaped by how they experience the world.**

This document is designed to celebrate those differences.

Children with diagnoses such as autism, Down syndrome, sensory processing disorder, ADHD and other developmental or physical disabilities bring unique strengths, needs and perspectives to play. Their diagnoses do not define them, but they can influence how children move, communicate, regulate emotions, process sensory input and interact with peers. Understanding these differences helps caregivers, designers and communities create play environments where every child feels welcome and capable.

Within these pages, you will find guidance organized by diagnosis to support inclusive, developmentally rich play. Each section includes:

- A clear overview of the diagnosis
- Key skills often supported through play
- Common ways the diagnosis may present
- Playground equipment that can help children engage, explore and succeed

This resource is not meant to be clinical or prescriptive. Children are individuals first, and no two experiences are the same. Instead, this document offers insight and practical considerations to help communities design play spaces that respond to a wide range of abilities, preferences and play styles.

When playgrounds are designed with flexibility, choice and dignity in mind, they become places where all children can play in ways that feel right to them. Because inclusive play is not about creating one “right” way to play. It is about honoring the many ways we play.



## Dr. Ariel Mansholt, OTR/L, CPSI // Inclusive Play Specialist

Dr. Ariel Mansholt brings both personal passion and clinical expertise to inclusive play. She was inspired to become an occupational therapist after growing up with an autistic brother and seeing how thoughtful environments can shape a child's ability to connect, grow and thrive through play.

### Clinical Focus

- Practicing pediatric and adolescent occupational therapist serving children and young adults ages 18 months to 21 years
- Works in both outpatient and school settings, supporting students PreK-8 and serving on IEP teams
- Partners with families, teachers and school staff to help skills transfer from therapy and classrooms into everyday life and play

### Education & Landscape Structures Work

- Earned her doctorate from Baylor University in 2022
- Completed her doctoral capstone with Landscape Structures, exploring how pediatric conditions impact a child's ability to play
- Supports inclusive design and education for designers, sales teams and communities
- Presenter at state and national conferences including National Recreation & Park Association, American Society of Landscape Architects and California Park & Recreation Society

### Research & Mentorship

- Contributes to research on play behaviors and inclusive playground design
- Recognized in 2025 with Baylor University's Outstanding Capstone Mentor Award

At the heart of Ariel's work is a simple belief: when play is designed for everyone, it helps every child feel seen, supported and included.



Scan the QR code to view additional references that helped inform the creation of *The Many Ways We Play*.



# Diagnosis: Autism

## Early Childhood (Ages 2 to 5)

### OVERVIEW

Autism is a neurodevelopmental diagnosis characterized by impacts on social skills and communication as well as restrictive and repetitive patterns of behavior.

### SKILLS TO TARGET

Sensory processing, social skills, gross motor skills, fine motor skills and play skills

### PRESENTATION

- Observable repetitive patterns; example, choosing to engage with one climber leading to a slide over and over
- Heightened responses with increased sensory stimulation in the environment
- Decreased gross and fine motor coordination; example, uncoordinated
- Decreased creative or pretend play
- Decreased interaction with peers

### EQUIPMENT



#### Cozy Dome®

This play component reduces auditory and visual input to allow children to take a break from sensory stimulation on the playground.



#### Too Small to Fail panels

These playground panels encourage language development.



#### Smart Play® Market Cafe

The Market Cafe creates a visual representation of the creative play scheme to help encourage pretend play.



#### Crawl Tunnel

Encourage upper- and lower-body engagement by navigating through the Crawl Tunnel.



# Diagnosis: Autism

## School Aged (Ages 5 to 12)

### OVERVIEW

Autism is a neurodevelopmental diagnosis characterized by impacts on social skills and communication as well as restrictive and repetitive patterns of behavior.

### SKILLS TO TARGET

Emotional regulation, social skills, gross motor coordination

### PRESENTATION

- Observable repetitive patterns; example, choosing to engage with one climber leading to a slide over and over
- Increased difficulty with regulating their emotions; may go into fight or flight and run away
- Observed to engage in more solitary play rather than social play; may have a harder time understanding social games or social interactions
- Needs more time and opportunities to learn how to explore climbers with increased complexity

### EQUIPMENT



#### Cozy Dome®

This play component reduces auditory and visual input to allow children to take a break from sensory stimulation on the playground.



#### We-Saw™

Encourages cooperative play and creates an inviting environment for social connections. Additionally, provides rhythmic rocking, creating an opportunity to regulate while engaging.



#### Oodle® Swing

The rhythmic rocking of swinging back and forth sends calming signals to the brain, encouraging emotional regulation. This seat allows for an individual or multiple people to use it.



#### Symbol Communication Sign

Similar to AAC devices used by children who are nonverbal communicators, this sign encourages connection with peers and helps children communicate their needs and wants.



#### Smart Play® Volo Aire™

The Smart Play Volo Aire provides varied routes of challenge to reach the summit, addressing multiple skill levels when it comes to gross motor skills of balance, coordination and strength. It also provides resting or perch points throughout the design.

# Diagnosis: Attention Deficit Hyperactivity Disorder (ADHD)

## School Aged (Ages 5 to 12)

### OVERVIEW

ADHD is characterized by inattention, hyperactivity and impulsivity. There are varied clinical presentations of this diagnosis. Research has shown that many children with ADHD also meet the criteria for Developmental Coordination Disorder. (Batshaw, Roizen, & Loterrecchiano, 2019).

### SKILLS TO TARGET

Executive functioning, functional social skills, gross motor skills

### PRESENTATION

- Frequently transitions from one play activity to the next, juggling many ideas at once and often described as impulsive
- May have increased difficulty coordinating motor movements within the play space
- May experience increased difficulty interacting with peers and understanding or following others' ideas and plans

### EQUIPMENT



#### Hedra®

The Hedra playstructure offers multiple pathways that support gross motor coordination, sustained attention and problem-solving by allowing children to choose and follow different routes to their desired destination.



#### Crab Trap®

This dynamic complex climber challenges a child's gross motor coordination through balance and strength as well as provides proprioceptive feedback—input to their muscles and joints—which can be regulating for this specific population.



#### ReviWheel® Spinner

This spinner encourages cooperative play and engagement of the vestibular system, which is important for coordination and balance.

# Diagnosis: Global Developmental Delay

## Early Childhood (Ages 2 to 5)

### OVERVIEW

Global Developmental Delay is characterized by delayed achievement of age-appropriate gross motor, fine motor, language, social and cognitive milestones.

### SKILLS TO TARGET

Cognition, fine motor skills, gross motor skills

### PRESENTATION

- May be non-verbal communicators or have limited vocabulary
- May have delays in walking or crawling
- May have a harder time manipulating small objects
- Increased difficulty with engagement in age-appropriate cognitive activities such as identifying shapes, colors and letters

### EQUIPMENT



#### Too Small to Fail panels

These playground panels encourage language development.



#### Infant Maze

The Infant Maze provides age-appropriate cognitive opportunities through the introduction of letters, shapes and colors. It further supports fine motor skill development through hands-on interaction with integrated beaded components.



#### Sliding

Slides provide vestibular input, helping children establish overall balance and coordination.



#### Smart Play® Market Cafe

The Market Cafe promotes engagement in pretend play skills, which encourages learning and expansion of the child's current skill set through taking on different roles and responsibilities.

# Diagnosis: Epilepsy

## School Aged (Ages 5 to 12)

### OVERVIEW

Epilepsy is a neurological condition characterized by recurrent unprovoked seizures.

### SKILLS TO TARGET

Social skills, executive functioning skills, motor coordination and balance, self confidence

### PRESENTATION

- Excessive drowsiness or observable lethargy during play
- Difficulty with executive functioning tasks including organizing, planning or imitating
- Decreased engagement in social play possibly due to anxiety regarding condition and low self-esteem
- Decreased coordination and balance (ataxia) on gross motor or climbing equipment
- Clumsy, uncoordinated movements due to antiepileptic medications (AEDs)

### EQUIPMENT



#### Ring Tangle® Climber or Mobius® Climber

These static climbers provide opportunities to strengthen a child's upper- and lower-body as well as overall coordination.



#### Smart Play® Volo Aire™ Seek and Find

This play component encourages problem solving as a child must navigate the play scheme to find all of the hidden animals. This provides challenge and a sense of satisfaction following accomplishment.



#### We-Saw™

The We-Saw encourages reciprocal play, turn-taking, and social engagement.



# Diagnosis: Muscular Dystrophy

## School Aged (Ages 5 to 12)

### OVERVIEW

Muscular Dystrophy is a genetic disorder causing progressive muscle breakdown resulting in weakness and loss of mobility that increases overtime; it is characterized by weakness, fatigue and clumsiness.

### SKILLS TO TARGET

Range of motion activities in all planes, self-confidence during play, peer engagement

### PRESENTATION

- Increased difficulty with hopping, jumping or running in play space
- Clumsy movements and difficulty balancing on equipment; children are often seen falling
- Due to fatigue, difficulty keeping up with similar-aged peers during play
- Varying levels of mobility; may utilize crutches, walker or wheelchair

### EQUIPMENT



#### Navigator Reach Panel

The Navigator Reach Panel encourages children to be in the driver seat through manipulation of the wheel and gear shift, facilitating imaginative play. When integrated, this piece is accessible to users with variety of mobility devices.



#### Rubber Belting

Rubber belting used on playstructures such as Quantis®, Volo®, etc. is perfect for varied mobility levels and allows users to target core strength, balance and coordination.



#### Labyrinth Panel

This play panel encourages upper body range of motion and visual motor skills as children are challenged to trace their way through the maze.



#### We-Go-Swing®

This inclusive swing creates opportunities to work together to produce movement back and forth while also creating an environment that invites face-to-face conversation. Users have autonomy to remain with their mobility device or transfer to alternative seating.



#### OmniSpin® Spinner

Higher backed seats provide support for users with decreased core strength while also allowing for vestibular input through spinning.

# Diagnosis: Learning Disabilities

## *School Aged (Ages 5 to 12)*

### OVERVIEW

Learning disabilities often result in increased difficulty with writing, speaking, spatial awareness, spelling and math.

### SKILLS TO TARGET

Visual motor skills, language, social skills, emotional regulation

### PRESENTATION

- May be observed to avoid cognitively demanding activities
- Decreased self-expression and self-confidence can be observed
- Increased difficulty forming social connections with peers
- Needs more repetitions to learn and gain new skills

### EQUIPMENT



#### **Play Panels (Tracing Panel, Periscope Panel, etc.)**

Encourages visual motor skill building and interactivity with a variety of play panels to facilitate learning.



#### **Too Small to Fail panels**

These panels encourage literacy and language development.



#### **Xylofun and Alphamaze Panel™**

By showcasing the letters of the alphabet and allowing users to trace the lines of the maze, these play panels encourage the development of pre-writing skills.



#### **Crux™ Climber**

This static climber creates opportunities for children to engage in climbing with intuitive foot- and handholds integrated throughout. It's a great learning opportunity piece.



# Diagnosis: Sensory Processing Disorder

## Early Childhood (Ages 2 to 5)

### OVERVIEW

Sensory Processing Disorder is characterized by difficulty taking in and interpreting sensory input from the environment. While the disorder presents differently across children, it may look like under/over responsiveness to sensory input.

### SKILLS TO TARGET

Self-regulation skills, body awareness, sensory exposure, transitioning between activities

### PRESENTATION

- Child may be observed to intentionally seek or avoid auditory stimulation or loud areas on the playground
- Child may seek out a preferred play area to support sensory regulation and may show emotional responses when asked to transition to different types of play equipment
- Child may appear uninterested in play or lethargic due to avoidance of excessive input
- Child may sway, run, rock or spin to provide regulating source of sensory input
- Difficulty with awareness of body signals such as hunger, need for bathroom

### EQUIPMENT



#### Rain Sound Wheel Panel™

This play panel provides auditory stimulation while promoting eye-hand coordination and problem-solving skills.



#### Cozy Dome®

This play component offers a safe place for retreat to encourage self-regulation without auditory or visual input.



#### Color Splash Panel™

This play panel offers visual stimulation that some children may gravitate toward while encouraging cognitive development.



#### Sandbox

Sand play provides tactile input while encouraging creativity, exploration and social play.



#### Swings

Swings provide rhythmic back-and-forth rocking, which sends calming signals to the brain to promote regulation.



#### Design Consideration

Fencing helps clearly define and contain the play area, supporting children and caregivers by reducing the risk of elopement when a child becomes overwhelmed.

# Diagnosis: Sensory Processing Disorder

## School Aged (Ages 5 to 12)

### OVERVIEW

Sensory Processing Disorder is characterized by difficulty taking in and interpreting sensory input from the environment. While the disorder presents differently across children, it may look like under/over responsiveness to sensory input or decreased coordination of movements.

### SKILLS TO TARGET

Social play, self-regulation, safety awareness, sensory exposure, executive functioning, motor planning

### PRESENTATION

- May become withdrawn, aggressive or emotional in response to unfavorable noises, motions or textures on the playground
- Refuses to leave one spot on the playground (swing, slide) as it provides the sensory input their body needs
- Excessive fear or emotional response following encouragement to try something new
- Seemingly unsafe or clumsy during play in pursuit of high intensity sensory input
- Avoids social play
- Difficulty organizing, planning, sequencing and higher-level thinking due to cognitive overload processing environmental input

### EQUIPMENT



#### Sensory Tunnel

This multi-sensory play element encourages self-directed exploration and offers varied tactile and visual inputs.



#### Swiggle Stix® Bridge

To build gross motor coordination, executive functioning skills and body awareness, this dynamic climber adds an engaging layer of challenge. As the ropes move, users must adjust in real time, responding to the constant feedback of the shifting structure.



#### Bobble Rider™

This freestanding component provides vestibular and proprioceptive input to encourage body awareness.



#### Roller Table™ or Rollerslide

These play components provide children with tactile and proprioceptive experiences. By moving across the table or going down the slide, the body is gaining input through its muscles and joints allowing them to identify where their body parts are in relation to one another, and where their body is positioned in space.



#### Rhapsody® Outdoor Musical Instruments

Musical instruments encourage creativity and executive functioning skills (*organization, task sequencing, cause and effect*), while providing auditory input.



#### Fox Den® Hangouts

This component supports self-regulation by reducing external environmental stimuli while providing calming vestibular input through gentle back-and-forth motion.



# Diagnosis: Cerebral Palsy

## *School Aged (Ages 5 to 12)*

### OVERVIEW

Cerebral Palsy is characterized by uncoordinated movement and posturing due to a disconnect in communication between the brain and the muscles. Presentation varies widely across children but can include muscle stiffness, involuntary movements, and difficulty coordinating movement.

### SKILLS TO TARGET

Motor planning, social play, self-confidence in play, fine and gross motor coordination, communication

### PRESENTATION

- Typically observed to be less playful than peers due to difficulty fully accessing an environment
- May use a wheelchair or other mobility aids in order to navigate their environment
- May have difficulty communicating wants or needs, furthering difficulties accessing social play

### EQUIPMENT



#### **Elevated Sand Table**

At wheelchair height, this play component promotes fine motor development and social play.



#### **Rhapsody® Outdoor Musical Instruments**

Musical instruments encourage communication and executive functioning skills through problem-solving and understanding cause and effect.



#### **We-Go-Swing®**

This inclusive swing creates opportunities to work together to produce movement back and forth while also creating an environment that invites face-to-face conversation.



#### **Super Netplex®**

Rubber spiral belting through the middle speaks for varied mobility levels and allows users to target core strength, balance and coordination.

# Diagnosis: Down Syndrome

## Early Childhood (Ages 2 to 5)

### OVERVIEW

Down syndrome is a genetic condition characterized by a child having an extra chromosome. Often presenting with poor muscle tone and weakness, the condition is characterized by a general delay in motor development.

### SKILLS TO TARGET

Gross and fine motor coordination, postural control, transitions between play activities, social play

### PRESENTATION

- Passive play style, observing children playing rather than engaging in social play
- Favors certain areas of the playground or becomes distressed when encouraged to explore new equipment
- Often observed to be attached to caregiver and has difficulty exploring new play independently
- Difficulty balancing and climbing due to low tone and general weakness, often seems “clumsy”

### EQUIPMENT



#### Imagination Table™

This play component provides the opportunity for children to take on different roles and responsibilities, encouraging pretend play and social interaction.



#### Mirror Panel

This panel encourages child to develop self-identity as well as interact with peers. Children can take turns making silly faces in the mirror and copying each other.



#### Pod Steppers and Balance Beam

These items functionally linked target balance and gross motor coordination.



#### Finger Maze Panel

The Finger Maze Panel encourages the finger isolation and visual motor skills children need to navigate their way through the maze. This translates into similar skills such as successful handwriting.



# Diagnosis: Down Syndrome

## *School Aged (Ages 5 to 12)*

### OVERVIEW

Down syndrome is a genetic condition characterized by a child having an extra chromosome. Often presenting with poor muscle tone and weakness, the condition is characterized by a general delay in motor development.

### SKILLS TO TARGET

Gross and fine motor coordination, postural control, diversity of play, emotional regulation, social play, motor planning

### PRESENTATION

- Repetitive play patterns observed and demonstrate increased difficulty with transitioning away from preferred play scheme
- Difficulty engaging with peers or with turn-taking
- Low tone causing difficulty in balancing and coordinating gross motor movements such as jumping/running
- Increased repetitive play with spinning as this often wakes up their neuromuscular system prior to taking on more complex climbers

### EQUIPMENT



#### **Oodle® Swing**

This multi-user swing promotes core strengthening and postural control while providing regulating vestibular input.



#### **Smart Play® Volo Aire™**

Varied climbers integrated throughout Volo Aire promote balance and gross motor strengthening, targeting motor planning and body awareness as children navigate the tower.



#### **Wobble Pod® Bouncer**

This component encourages body strengthening and motor planning across multiple planes while providing a variety of sensory input.



#### **ZipKrooz® and ZipKrooz Assisted**

This playground zipline strengthens the core and upper body while providing vestibular input, supporting more complex motor planning and improved postural control.



#### **Chill® Spinner**

Children of all abilities can remain active within the play space with the relaxed seat of the Chill Spinner, which stimulates the vestibular system.

# Diagnosis: Spina Bifida

## School Aged (Ages 5 to 12)

### OVERVIEW

Spina Bifida affects the spinal column, leaving a section of the spinal cord and nerves exposed.

### SKILLS TO TARGET

Gross motor skills—balance, coordination, strength, fine motor skills

### PRESENTATION

- Have varied levels of mobility and may use crutches, walkers or wheelchairs to navigate the play space
- Need routes within the play environment providing opportunities for gross motor skill acquisition
- May present with increased difficulty performing small, precise movements as well as manipulation of smaller objects

### EQUIPMENT



#### LSI Flexx™ cable netting

Equipment such as the Super Netplex®, Hedra® and Smart Play® Volo Aire™ speak to various challenge levels with the integration of belting and netting material.



#### We-Go-Round®

This modern-day merry-go-round provides users with autonomy and choice in how they engage. Children can initiate rotation using the central dial or create movement by navigating around the outside of the structure.



#### We-Go-Swing®

This inclusive swing creates opportunities to work together to produce movement back and forth while also creating an environment that invites face-to-face conversation.



#### Flexx™ Swing

Users can transfer into the swing, which cradles and supports the body, and experience the sensation of flying through the air.



# Diagnosis: Blind/Low Vision

## School Aged (Ages 5 to 12)

### OVERVIEW

Many users who are blind/low vision can see shapes or colors. Only 7.8% of users who are blind can read Braille.

### SKILLS TO TARGET

Sensory integration, safety awareness, wayfinding/orienting, play skills

### PRESENTATION

- Explore through other sensory systems, for example tactile and auditory
- May have a harder time transitioning from deck-to-deck
- Enjoy engagement in climbing and swinging opportunities that meet their needs

### EQUIPMENT



#### Design Consideration

Integrating color contrast throughout the environment will create opportunities for users to gain insight into topographical changes within the play space.



#### Rhapsody® Outdoor Musical Instruments

The auditory input from musical play allows users to orient themselves to where they are within the play environment in relation to other pieces of equipment.



#### Sensory Play Center®

The center provides varied tactile input through ridges and integrates elements encouraging exploration and play.



#### Swings

Swings provide rhythmic back-and-forth rocking, which sends calming signals to the brain to promote regulation.

# Diagnosis: Deaf/Hard of Hearing

## *School Aged (Ages 5 to 12)*

### OVERVIEW

Hard of Hearing is characterized by children with losses of 25 to 70 decibels and Deaf is children with decreased hearing range and loss greater than 70 decibels.

### SKILLS TO TARGET

Sensory processing, functional social skills

### PRESENTATION

- Observed to explore more with other senses such as tactile and visual
- May have increased difficulty forming social connections with peers
- Hearing aids amplify external sounds, while cochlear implants deliver sound signals directly to the auditory nerve

### EQUIPMENT



#### Smart Play® Volo Aire™

This accessible tower provides increased sensory reach so individuals can scan their environment and gain important wayfinding information. Additionally, this structure provides opportunities throughout where children can sit to connect and have space to sign.



#### Rhapsody® Outdoor Musical Instruments

Children can feel the vibrations created through the ringing of the chimes or beating of the drums providing direct feedback to them.



#### Slide Materials

Because some cochlear implants can discharge when children go down polyethene slides that produce static, aim to offer sliding experiences through alternative materials such as stainless steel or concrete.



#### Sign Language Panel

This playground panel encourages language learning and expressive forms of communication.









Landscape Structures is the leader in commercial playground equipment design and manufacturing. Since 1971, we have transformed the landscape of play by bringing captivating play spaces to communities and schools across the globe. Everyone at our employee-owned company welcomes the responsibility of creating experiences that honor and include every child's unique abilities. We believe play is life-changing. Because play, when designed for everyone, brings out the best in all of us.



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