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- Providers should always evaluate the limitations of diagnostic and screening tools, considering their potential for false results as well as any ethical implications.
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Supporting Children and Teens with Oticon

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Learning Objectives

- After this course, participants will be able to describe the key BrainHearing technologies in Oticon's pediatric product family Oticon Play SI.
- After this course, participants will be able to explain how Oticon's approach to signal processing supports meaningful participation for children and teens.
- After this course, participants will be able to list three connectivity options available for Oticon Play SI.

Speaker Disclosures

- Financial: Lauren O'Neill is an employee of Oticon.
- Non-financial: Lauren O'Neill has no relevant non-financial relationships to disclose.
- Sponsor Disclosure: This course is presented by Oticon in partnership with the hosting platform.
- Content Disclosure: This learning event focuses on Oticon products and services and will not include information on other products or services.

Introduction: Oticon Play SI Overview

About Oticon Play SI

Oticon Play SI is Oticon's newest pediatric hearing aid family. The name reflects two core concepts: Play, which represents Oticon's dedicated pediatric product universe, and SI, which refers to the Sirius chipset — the same advanced platform used in Oticon Intent and Oticon Zeal.

Conceptual Framework: ICF Model

The design of Oticon Play SI is grounded in the World Health Organization's International Classification of Functioning, Disability and Health (ICF). Four key components inform the device's pediatric approach:

- Environmental factors
- Body function and structure
- Activities
- Personal factors

These components guide how the hearing aid supports children across a wide range of ages, listening environments, and daily activities.

Five Core Topics Covered in This Course

- AI sound processing
- Four-dimensional (4D) sensor technology
- Connectivity updates
- Fitting the device
- Durability

AI Sound Processing

Deep Neural Network (DNN) Technology

Oticon has utilized artificial intelligence (AI) for sound processing since the release of Oticon More in 2020. The previous pediatric product, Oticon Play PX, incorporated first-generation DNN technology. Oticon Play SI introduces second-generation DNN, first released with Oticon Intent in 2024.

Key Characteristics of AI Sound Processing in Play SI

- Always on — functions continuously as part of standard sound processing
- Operates across all sound environments automatically, without requiring program changes
- Second-generation DNN was trained on more frequency bands, resulting in more precise categorization and separation of speech and noise
- Reduces unwanted sounds by up to 12 dB while preserving speech clarity
- Available in both technology levels: Play SI1 and Play SI2

First Fit Accuracy

A study assessed first fit accuracy of Oticon Play SI to DSL child fitting targets at 65 dB SPL using root mean square error (RMSE). Three configurations were tested: flat 40 dB hearing loss, mild-sloping-to-moderate hearing loss, and reverse slope hearing loss. DSL targets were matched within plus or minus 3 dB for all three configurations, supporting strong first fit accuracy and efficient clinic workflows.

MoreSound Intelligence 3.0

MoreSound Intelligence 3.0 is Oticon's noise reduction and directionality system, with several notable updates in Play SI compared to the previous pediatric platform:

- Categorizes listening environments as easy or difficult, allowing separate noise suppression personalization for each
- Sound Enhancer: enables increase or decrease of 1,000-4,000 Hz access in difficult listening environments
- Updated Wind and Handling Stabilizer
- Updated DNN (second-generation AI)

Q4

Quiz Hint

- MoreSound Intelligence 3.0 is the feature in Oticon Play SI that dynamically adjusts processing support based on listening environment complexity.
- It categorizes environments as easy or difficult and personalizes noise suppression settings accordingly.

Wind and Handling Stabilizer

The Wind and Handling Stabilizer is a new feature for the Play line, not previously available in Play PX. Key specifications include:

- Detects and filters wind 500 times per second
- Operates across 24 unique frequency channels
- Selects the microphone with the cleanest signal when wind is detected
- Attenuates wind and handling noise only in the affected frequency channels, preserving speech access in unaffected channels

Sudden Sound Stabilizer

Sudden Sound Stabilizer is an updated transient noise management feature available in Play SI, previously offered in Oticon adult products. It manages both loud and soft transient sounds, including slamming doors, footsteps, keyboard typing, clicking pens, and ticking clocks. It attenuates peaks in transient sounds without affecting the prescription, gain curve, or speech clarity. Clinicians can adjust aggressiveness as needed for the individual patient.

MoreSound Amplifier 3.0 — Updated Compression and Bandwidth

MoreSound Amplifier 3.0 introduces an improved, faster, and more precise compression strategy. Frequency bandwidth specifications:

Product Level	Frequency Bandwidth
Play SI1	80 to 10,000 Hz
Play SI2	80 to 8,000 Hz

MoreSound Optimizer — Preventative Feedback Management

MoreSound Optimizer is Oticon's preventative feedback management system. Unlike traditional feedback management, which reduces gain after feedback occurs, MoreSound Optimizer uses spectrotemporal modulation to prevent audible feedback before it begins. Benefits include:

- Maintains prescription throughout the day — gain is not reduced to manage feedback risk
- Particularly relevant for pediatric patients who frequently encounter feedback-prone situations such as wearing helmets, hugging, chewing, and physical activity

Four-Dimensional (4D) Sensor Technology

Overview

4D sensor technology, previously available in Oticon Intent, is now available in Oticon Play SI. The sensors provide the hearing aid with information about the patient's listening intention based on four dimensions:

- Head movement
- Body movement
- Conversation activity
- Acoustic environment

Q1**Quiz Hint**

- The four sensor inputs used in Oticon 4D Sensor technology are: head movement, body movement, conversational activity, and acoustic environment.

How the Sensors Support Different Listening Scenarios

The 4D sensors automatically adjust processing based on what the patient is doing in a given moment:

Listening Scenario	Sensor Response
Navigating the environment (no active conversation)	Open sound access to hear environmental sounds, including someone calling the patient's name
One-on-one conversation (minimal head movement)	Speech emphasis on the voice directly in front of the patient
Group conversation (head turning left and right)	Noise suppression applied appropriately; speech access prioritized across multiple talkers

Research Evidence — Speech Cue Access

Research comparing Oticon Play SI to MoreSound Intelligence 2.0 (previous generation) demonstrates:

- 12% increase in access to speech cues with AI improvements on the Sirius chipset alone (without 4D sensors)
- 35% increase in access to speech cues when 4D sensors are added

Research Evidence — Pediatric Outcomes (Boystown Study)

A study by Ryan McCreary and Melissa Henry at Boystown National Research Hospital examined 4D sensor benefits in children and teens ages 12 to 18 with mild to severe hearing loss:

- 50% of participants showed improved sentence recognition with 4D sensors activated compared to sensors off
- 77% of participants reported reduced listening difficulty with 4D sensors activated (measured via ecological momentary assessment and questionnaires)
- Conclusion: 4D sensor technology offered additional support for tweens and teens in complex listening environments

Q2

Quiz Hint

- In the Boystown study examining 4D sensor activation for tweens and teens, 77% of participants reported reduced listening difficulty.
- Additionally, 50% showed improved sentence recognition when sensors were activated.

Clinical Considerations for 4D Sensor Use in Pediatric Patients

4D sensors are defaulted off for any patient under the age of 18 in Genie fitting software. The decision to activate sensors should be based on clinical judgment.

Factors to consider include:

- The child's typical listening environments — are they frequently noisy and complex?
- Whether the patient reports ongoing challenges in specific situations (e.g., sports, group settings)
- Outcome measures such as the Vanderbilt Fatigue Scale for Children
- The patient's cognitive and developmental profile, not just chronological age

Q3

Quiz Hint

- 4D sensor technology is appropriate to consider activating for school-age children, not infants, toddlers, or younger children.
- Sensors are defaulted off in Genie for any patient under age 18; the provider activates them using clinical judgment based on the child's listening needs and developmental profile.

Activating 4D Sensors in Genie

To activate 4D sensors in Genie fitting software:

- Navigate to the Fit screen
- Select MoreSound Intelligence
- Select the Sound Configuration tab
- Toggle the Sensor Technology switch to on

No additional programming is required. Clinicians may also create a program with sensors on and another with sensors off to allow the patient to compare settings.

Connectivity

Bluetooth Capabilities

Oticon Play SI prioritizes modern connectivity, which is particularly important for pediatric patients and teenagers. Key features include:

- Made for iPhone (MFi) — direct streaming to Apple devices
- Optimized for Android via Bluetooth LE Audio technology
- Google Fast Pair — enables faster, easier pairing to Android phones
- AuraCast broadcast capability

Companion App Features

The Oticon Companion app provides patients with discreet, convenient control over their hearing aids:

- Volume adjustment
- Battery level monitoring
- AuraCast broadcast access, including QR code scanning to connect to broadcasts
- Support for broadcasts with subgroups and multiple languages
- Streaming equalizer for fine-tuning broadcast sound quality
- Ability to mute broadcasts

Accessories Available for Oticon Play SI

Accessory	Description
TV Adapter	Streams audio directly from television to hearing aids
ConnectClip	One-to-one remote microphone; also serves as intermediary device for Bluetooth connections to laptops and other devices
Standard Remote Control	Volume adjustment and program change
EduMic	Classroom solution using digital modulation and Oticon proprietary 2.4 GHz Bluetooth technology
Easy LE Adapter	New accessory for the Sirius platform; connects to devices with USB-C ports (Android phones, tablets, laptops, Nintendo Switch) for streaming; compact, easy to pair, no charging required

Q5

Quiz Hint

- The EduMic uses digital modulation and Oticon's proprietary 2.4 GHz Bluetooth technology to support classroom communication access.
- The EduMic supports one-to-many connections, allowing multiple sets of Oticon hearing aids to connect simultaneously.

EduMic: Key Features

- One-to-many connection — multiple Oticon hearing aids can connect simultaneously
- Can function as an intermediary device to connect to a laptop via direct audio input
- Compatible with existing classroom systems via a receiver connected to the base of the device

Fitting Oticon Play SI

Device Styles

Oticon Play SI is available in two rechargeable styles:

- Mini BTE (Behind-the-Ear) — same body design as Oticon Intent
- miniRITE (Receiver-in-the-Ear)

Fitting Levels

Feature	Details
Play SI1	Bandwidth 80-10,000 Hz; available in 85 and 105 fitting levels within the Mini BTE
Play SI2	Bandwidth 80-8,000 Hz; same fitting level options
Fitting Level Flexibility	Both 85 and 105 fitting levels are built into the Mini BTE — no new device required to switch; adjustable in Genie at any time
Clinical Recommendation	Use 85 fitting level when within range to maximize high-frequency bandwidth; switch to 105 for greater output needs (e.g., progressive or severe hearing losses)

Changing Fitting Level in Genie

To change the fitting level for the Mini BTE in Genie:

- Connect the hearing aids to Genie
- Navigate to the fitting level selector and change from 85 to 105 (or reverse)
- Proceed to the fitting screen and recalculate as prompted

This is particularly useful for patients with progressive, asymmetrical, or fluctuating hearing losses.

Coupling Options — Mini BTE

- Slim tube (Porta Mini Fit): available in 0.9 mm and 1.3 mm tubing; fin tubes available on request
- Compatible with domes, grip tips, light tips, and micro molds
- Standard ear molds can be ordered directly from Oticon (canal, canal lock, skeleton, full shell, clear, and color options)

Receivers (Speakers) — miniRITE

Play SI uses the Mini Fit Detect self-calibrating smart receivers, shared with Oticon Intent. Key features:

- Self-calibrate daily to ensure accurate and consistent gain application
- Automatically populate receiver level, length, serial number, and side in Genie upon connection — no manual entry required
- Improved retention curve shape compared to Play PX receivers
- 16 blinking lights on the hearing aid indicate a receiver error (e.g., incorrect side placement)
- Higher NPO for improved sound quality

Fitting Level	Coupling Requirement
60, 85, 100	Compatible with all domes, grip tips, light tips, and micro mold options
105	Requires Micro Shell Detect (embedded receiver mold)

Charging

Feature	Details
Charging method	Contact charging (two contacts on the hearing aid base — same as Oticon Intent)
Quick charge	15 minutes provides approximately 4 hours of use
Full charge time	2 hours
Full charge battery life	20 hours, including streaming
Smart charger cycles	Holds a minimum of 3 charging cycles
Programming while charging	Hearing aids can be connected to Genie while in charger (aids are on but muted; feedback management cannot be run while in charger)

Color Options

Oticon Play SI offers a wide range of colors, including standard shades (honey beige, chroma beige, silver, terracotta, chestnut brown, diamond black) and pediatric-focused options (cool red, cool blue, power pink, aquamarine). New colors exclusive to Play SI include lavender and mint green. Color tone hooks are also available for mix-and-match customization. Color wheels are available through account managers. Fun sticker options are included with pediatric orders — apply without covering microphones.

Fitting Software: Genie Considerations

Programming Device

The NOAHlink Wireless is the only compatible programming device for Oticon Play SI. It supports both fitting and firmware updates.

Late Activation

Oticon Play SI uses Late Activation in Genie. Play SI will not appear as a selectable option in the hearing instrument family list until a Play SI device is physically connected. This applies to both Play SI1 and Play SI2. Clinicians who need access before physically connecting the device should contact their account manager for a workaround. This also applies to Oticon Ferra, launched at the same time as Play SI.

Tap Control Default

Tap control is defaulted off for pediatric patients in Genie. It can be enabled in the Companion app or by the provider via Genie:

- Navigate to Finish screen
- Select Buttons and Taps
- Enable Call Controls to allow tap-to-answer functionality

Data Logging Update

Oticon Play SI introduces an updated data logging feature that tracks not only how many hours the hearing aids are turned on but also how many hours the hearing aids are physically worn. This provides more accurate compliance information to support counseling conversations with patients and parents.

Operating System Compatibility

Microsoft support for the Windows 10 operating system ended on October 14, 2025. Support for Windows 10 in Genie will end in 2027. Clinicians should ensure their software is updated accordingly.

Key Takeaways

Summary: Oticon Play SI

- Second-generation DNN (AI) sound processing provides more precise speech and noise separation, up to 12 dB noise reduction
- MoreSound Intelligence 3.0 introduces 4D sensor technology, Wind and Handling Stabilizer, Sudden Sound Stabilizer, and Sound Enhancer
- 4D sensor technology is defaulted off for patients under 18; activation requires clinical judgment and is supported by research in school-age children
- Research demonstrates 35% improvement in speech cue access and 77% of teens reporting reduced listening difficulty with 4D sensors
- Bluetooth LE Audio enables optimized Android connectivity, Google Fast Pair, and AuraCast broadcast
- Available accessories include ConnectClip, EduMic, TV Adapter, Easy LE Adapter, and Standard Remote Control
- Mini BTE offers both 85 and 105 fitting levels within a single device — no exchange required for progressive or fluctuating hearing losses
- Mini Fit Detect smart receivers self-calibrate daily and auto-populate in Genie
- IP68 rated for durability — built for the demands of pediatric daily wear

Notes

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