

Clinical-Decision Making Guidelines
SO Program Partnership with Starkey Cares

Special Olympics
Healthy Hearing



With our new global partnership with Starkey Cares, we have also updated the Clinical Decision-Making Guidelines to include:

- Active and respectful discussion between CDs and Starkey Cares regarding hearing test results.
- Discussion items for certain Healthy Hearing.
- Healthy Hearing Clinical Director to initiate discussion with Starkey Cares Clinical Lead when clinically indicated by specified criteria.
- Possible solutions for Clinical Gateways (contraindications and relative contraindications) that may be encountered during certain Healthy Hearing stations.
 - Clinical Gateways have been categorized with a ★ in our joint screening protocol.

***The goal of these new guidelines is to make sure that no athlete is overlooked and fit onsite with hearing aids with referral to Audiology or other healthcare professional for follow-up as indicated.**

Starkey
cares 

Our Corporate Social Responsibility

Clinical-Decision Making Guidelines

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OTOSCOPY:

Possible Otoscopic Findings:

- ★ • **Contraindications:** active drainage, perforated eardrum, cholesteatoma, acute otitis media, otitis externa, othematoma, myringitis, exostosis, retracted eardrum, redness and/or swelling.
 - HH CD and Starkey Cares lead to ask follow-up questions, both to determine if athlete should continue through stations.
 - If it is determined that athlete should NOT continue through stations
 - Athlete will go to check out with a referral to ENT/PCP. Will be provided with information on local provider for follow-up.

Group A: When the following conditions are present, the goal is to fit onsite if athlete requires hearing aids, with possible referral to Audiology for follow-up as indicated.

- **Exostosis:**
 - If athlete requires hearing aids, HH CD and Starkey Cares lead to discuss what type of device will work with this condition.
- **Redness and/or swelling:**
 - HH CD to determine if it is localized irritation vs deeper/chronic/acute, via case history. Athlete to continue through stations unless contraindications.
 - The goal is to fit athlete with hearing aids on site and follow-up for recheck/refit as indicated, as this condition could potentially prohibit proper ear mold insertion, if not overly irritated.
- **Retracted eardrum:**
 - HH CD to consider tympanometry, as well as inquire if athlete took a flight in last 24 hours and if there are reports of otalgia.

Group B: When the following conditions are present, the goal is to resolve occlusion through Starkey Cares to enable onsite fitting, otherwise refer to ENT.

- Cannot visualize eardrum.
- Foreign body in ear canal

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PURE TONE THRESHOLD TESTING:

Contraindications: Discussion Items

- ★ • Asymmetry to AAO/ASHA standard:
 - Asymmetric hearing loss has been defined as a difference of 15 dB between the right and left ear at three contiguous frequencies.
 - Unilateral hearing loss (normal hearing in one ear and partial/complete loss in other).
- Air-bone gap:
 - Difference of 15dB between right and left ear bone conduction thresholds.
- Athlete describes/experiences hyperacusis.
- Non- discernible thresholds are obtained via testing.
- Unable to test athlete.
- Inability to test athlete due to incompatibility with clinician.

Possible Solutions:

- Test results reveal:
 - Asymmetrical hearing loss (as defined per ASHA), unless long-standing:
 - Athlete will proceed to check-out with referral to ENT.
 - Air-bone gap:
 - HH CD initiate discussion with Starkey Cares lead when clinically indicated/necessary.
 - The goal is to continue to fit hearing aids onsite if an athlete requires hearing aids.
- Athlete describes/experiences hyperacusis:
 - HH CD to consider form of hearing protection at check-out, if athlete is a hearing aid candidate, discussion with Starkey Cares lead should take place.
- Unable to test/non-discernible thresholds are obtained via testing:
 - Discuss with Starkey Cares lead onsite prior to athlete proceeding to check-out.
- Unable to test athlete due to incompatibility with clinician:
 - Refer to another clinician at the event for further assessment prior to discontinuation of testing. Discussion to take place between HH CD and Starkey Cares lead for referral to local provider for follow-up.

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STARKEY CARES STATION 2: ACOUSTIC COUPLING

Contraindications: Discussion Items

- Athlete encounters an ear mold impression blow by with trauma.

Possible Solutions to Contraindication Discussion Items:

- Ear mold impression blow by with trauma:
 - Athlete to proceed to check out with a referral to ENT, Emergency Room, or PCP.

Relative Contraindication: Discussion Items

- Available stock option earmolds do not fit athlete.

Possible Solutions to Relative Contraindication Discussion Items:

- No stock option earmolds that fit:
 - Discussion to take place about possible custom options and continue with fitting onsite.



STARKEY CARES STATION 3: SOUND PERCEPTIONAL PROGRAMMING

Contraindications: Discussion Items

- Real ear:
 - Unable to obtain.

Possible Solutions

- If clinician is unable to obtain real ear measures:
 - Continue with fitting onsite, follow-up for recheck.

Relative Contraindications: Discussion Items

- Ambient noise is too loud to perform real ear measures.
- Athlete is non-response to testing.
- Athlete is providing unreliable responses.

Possible Solutions:

- If clinician encounters too much loud ambient noise during testing:
 - Suggest moving to a quieter location or booth, if available.
- If athlete is non-responsive to testing:
 - Clinician to consider change in provider, consistent provider throughout screening, possible rest/sensory break.
- If athlete is providing unreliable responses:
 - Clinician to attempt retest with alternate provider.

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STARKEY CARES STATION 4: COUNSELING

Relative Contraindication: Discussion Items:

- Language barrier between athlete and clinician.
- Expected low adoption or compliance.

Possible Solutions:

- If there is a language barrier between clinician and athlete:
 - Clinician should seek out translator or utilize technology and prep materials in 6 SO-official language.
- If athlete is demonstrating difficulty manipulating or understanding hearing aid use:
 - Clinician to consider different style of device, ability to secure a support person, as well as connection to support.

STARKEY CARES STATION 5: QUALITY CONTROL AND SURVEY

Relative Contraindication: Discussion Items:

- Unverified athlete details

Possible Solutions:

- If athlete has unverified contact details
 - Clinician to locate HOD, coach, etc. to identify and confirm details. Clinician should also inform Regional Health Manager and Regional President and Managing Director that athlete was unaccompanied.

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POTENTIAL FOR ADVERSE EVENT(S):

- Starkey Cares Station 2 - Earmold Impressions at Fitting:
 - Potential for damage to outer, middle and even inner ear structures when taking deep impressions.
 - Includes abrasions, trauma or lesions to the TM or middle ear ossicles.
 - Removal of pressure equalization (PE) tube.
 - Perilymph fistula with resultant fluctuating progressive or long-standing sensorineural hearing loss.
 - Concussive inner ear trauma accompanied by temporary or permanent threshold shifts.
- With proper training and experience, ear impressions can be performed safely, and it is an integral part of our practice. Diligence with ear impressions is required because it is an invasive procedure and can have unforeseen problems. Ear impressions require a conscientious approach to inspecting the ear canal and confirming the otoblock placement to avoid damage to the ear. To avoid such incidents, we must be incredibly careful in the way we examine the ear canal and use a bracing procedure to avoid potential injury to the ear if there are any sudden movements.

Three-Tiered Referral System for Adverse event(s):

1. **Immediate Referral** – the athlete should be seen by the specialist within 24 hours.
2. **Urgent Referral** – athlete should be seen by the specialist within 2 weeks.
3. **Refer** – routine referral.

*We expect that the Three-Tiered referral system be utilized during adverse event(s).

Example: Perforated eardrum due to earmold impression blow-by

- If there is a perforation in combination with other symptoms (dizziness):
 - Immediate Referral (ER / PCP).
- If there is a perforation without other symptoms:
 - Urgent or Non-urgent referral on a case-by-case basis.
- Irrigation/Redness in canal without perforation:
 - Refer – routine referral as needed.

***This is a referral decision that the Healthy Hearing Clinical Director would need to make.**

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CONTRAINDICATIONS THAT REQUIRE REFERRAL TO ENT:

Otoscope Findings:

- Active drainage
- Perforated ear drum
- Cholesteatoma
- Acute otitis media
- Otitis Externa
- Othematoma
- Myringitis

Puretone Threshold Findings:

- Asymmetry (per ASHA guidelines):
 - 15dB difference between right and left ear at three consecutive frequencies.
- Unilateral loss:
 - Normal hearing in one ear and partial/complete loss in the other ear.

DISCLAIMER:

In the scenario when ENT is NOT accessible, HH Clinical Director to determine referral direction (e.g., PCP, Emergency Dept).