


WELCOME TO

Custom Products

Positioning your practice for the win

Options for audio include computer speaker or dial-in at 02 8518 1923 / Access Code: 177 711 5749
For technical questions or log-in information please contact Vincent Santana at 0413 834 718 Vincent_Santana@Starkey.com.au




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The webinar will start in..

5:00



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Custom Products

Positioning your practice for the win

Judy Grobstein, Au.D., MACAud
Manager of Education and Audiology




HOUSEKEEPING

If not using speakers and you haven't already, please call into the call center number 02 8518 1923 and enter access code 177 711 5749


Please be sure to keep microphones muted

If you have any technical issues, please contact Vincent Santana at vincent_santana@starkey.com.au or call him direct at 0413 834 718

If you have any questions, please type them in the chat box. You can view the chat box by clicking the chat bubble at the bottom of your screen



WebEx Control Panel




ENDORSED SESSION

This Session is endorsed for ACAud, AudA and HAASA points

You must stay logged on for the full session

AudA members must complete a 10 questions quiz with a passing score of 70% as well as your CPD Reflections and Evaluations

ACAud, HAASA and NZAS members must complete the quiz to receive full points.




LEARNING OBJECTIVES

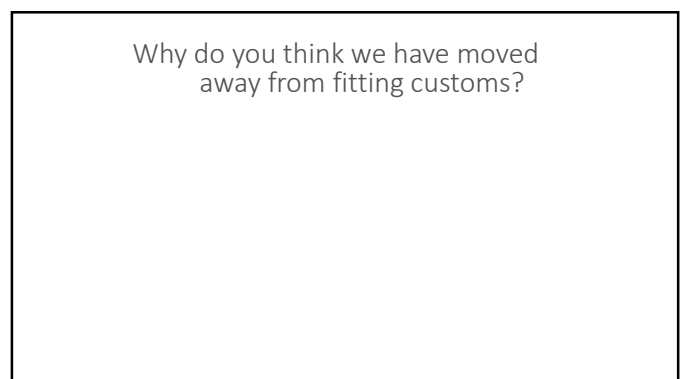
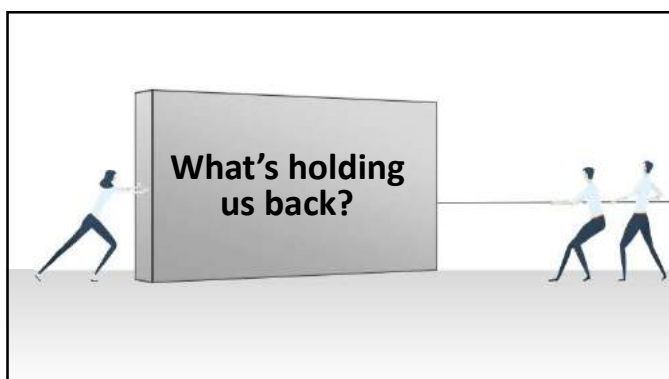
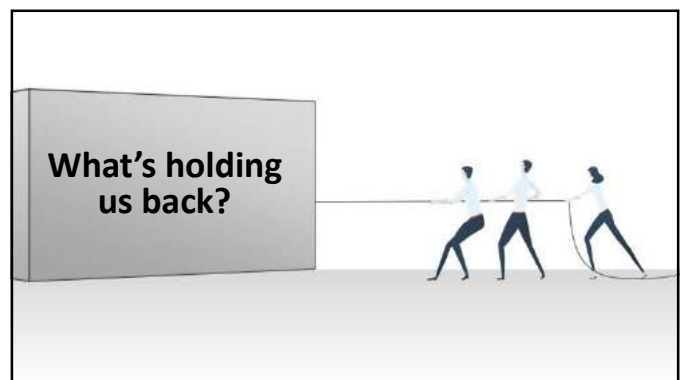
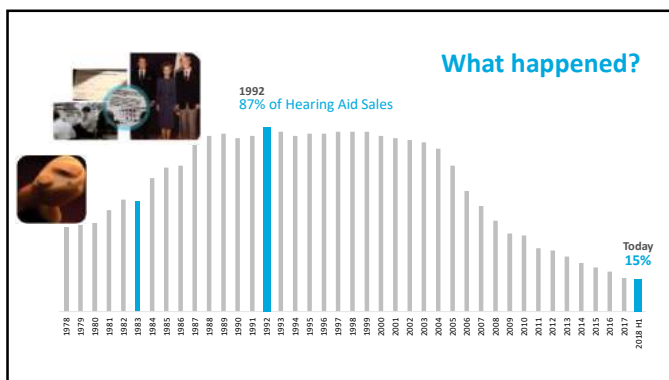
Recognize the importance of custom devices in a world of personalization

Identify how to overcome preconceptions and have more successful custom fittings

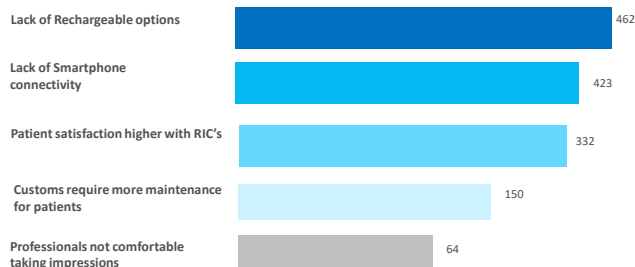
Identify proper protocols to safely take quality impressions

Identify the advances in custom hearing aid technology



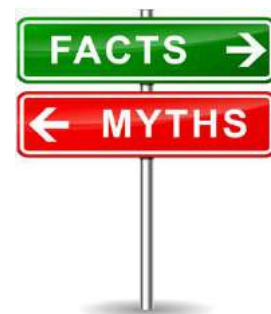


And the survey says.....



Custom devices

Facts vs Myths



Advantages of Small Custom Devices

Receiver Placement

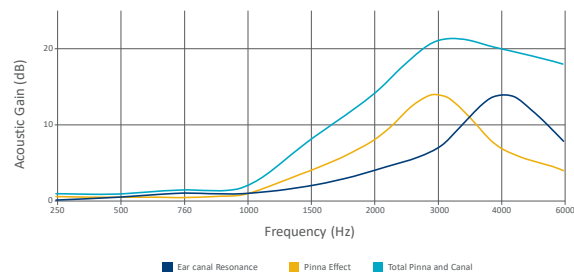
- Small volume between receiver outlet and TM increases SPL and efficiency
- Shell insertion into bony portion of ear canal can reduce occlusion

Microphone Placement

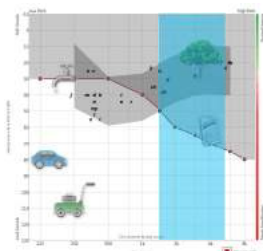
- Reduce wind noise interference
- Improved telephone use
- Microphone location takes advantage of natural pinna and ear canal resonances



Natural Resonances



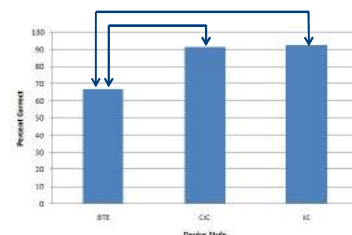
High Frequency Speech Cues



Improved Localization

Participants localized to speech and music presented at 0° and 180°

- Both the IIC and CIC significantly improve localization when compared to the BTE



Reduced Occlusion

Deeply seated canals reduce the negatively perceived own-voice occlusion effects

- By reducing the residual volume between the tip of the aid and the tympanic membrane
- By preventing soft tissue in the external ear canal from vibrating and becoming a sound source which contributes to the occlusion effect



Figure 2. Four completely-ventilated (CV) hearing aids used for occlusion measurements, differing in length from 12 mm (A) to 21 mm (D).

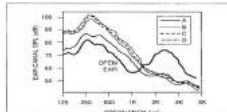


Figure 3. Open ear SPL and the ear canal SPL when CVs A, B, C, and D (see Figure 2) were placed in the ear. Measurements obtained during the initial session for subject.

Why Custom Now?

- Provide a personalized product
- Provide a more secure fitting, especially with facemasks
- Provide an easier to insert form factor
- Provide the sound quality and performance that our patients need/desire



Convenience,
Comfort, and
Cosmetics



Comfortably wear a mask
without the concern of
losing your hearing aids



Beyond Acoustic Benefit



MICROTIA



PIERCING



INJURY



DEXTERITY



Healthable Technology

Direct to Smartphone

Rechargeability



Imagine If?

Feature packed **Pleasant**
Personalized Fast
Just the right fit Painless
Technology Value Innovative



THE INDUSTRY'S FIRST AND ONLY

**2.4 GHz Custom
Li-Ion Rechargeable**

Personalized Power


23 Hours of superior
hearing including
4 Hours of streaming

3.5 Hours Charge Time

**2.4 GHz Wireless
Technology**

Streams from 2.4 GHz Accessories,
iOS and select Android Devices





Delivering Everything Patients Want

Custom, Convenient, Comfortable

Thrive Platform

Artificial Intelligence and Embedded Sensor Technology

Compatible with all 2.4 GHz Accessories

Available in ITE, HS and ITC


Push Button, Rotary VC, or Dual User Controls

Up to 130/70 Matrix


Telecoil (ITE only)

Available in Livio Edge AI, Livio AI, and Livio

Faceplate Colors



Shell Colors



Custom Charger

All-in-One Charger
On-board battery can charge devices up to 3 times without a power source

LED Indicators
Patients know when their hearing aids are charging and when charging is complete


Easy-Open Charger Case
Small, covered, and easy-to-use charger case can carry or store hearing aids when not in use

Contact Charging
Secure contact charging posts. Devices fully charged in just **3.5 hours**


Custom Charger

LED Hearing Aid Charging Indicators


Patients know when their hearing aids are charging and when charging is complete



Glowing Green
Charging




Solid Green
Fully Charged



LED On-board Battery Charging Indicators

●●●● 4 Solid: More than 75%	●●● 3 Solid: Less than 75%	●● 2 Solid: Less than 50%
● 1 Solid: Less than 25%	● 1 Blinking: Charge Low	



CUSTOM LITHIUM-ION RECHARGEABLE

Charge Times and Battery Life

Charge Time	Battery Life (Hours)
15 MINUTES	2.0 HOURS
30 MINUTES	4.5 HOURS
1 HOUR	9.4 HOURS
3.5 HOURS	23 HOURS

thrive

+

livio

Edge^{AI}

A Gateway to Better Health and Wellness

Body Tracking

Brain Tracking

Self Check

Fall Alert

Tap Control

Thrive Assistant

Translate

Transcribe

Auto On/Off

Reminders



The Industry's First and Only

Edge Mode

Instant Optimized Adjustments

Putting the power of artificial intelligence at your customer's fingertips for next-generation sound performance in the most challenging listening environments





Edge Mode

Continuous analysis of environments for advanced level of comfort and clarity

Unique adaptation for any environment when engaged

Settings are fixed once engaged

Disengage and engage to accommodate changes to listening environment


Accessibility at your Fingertips

DOUBLE TAP

Programmable within Inspire for

- Start/Stop Accessory Streaming
- Thrive Assistant*
- Edge Mode*


*Available with Livio Edge AI and specific tiers of Livio AI



Tap in the middle of the faceplate with one or two fingers

DOUBLE TAP

Tap in the middle of the faceplate with one or two fingers



Recommended Use and Care

- Store the aids and charger in a clean, dry location away from excess heat
- Fully charge the hearing aids every night

Expected life of 2.4 GHz Custom Rechargeable hearing aids and Custom Charger is 3-5 years



We recommend, and community laws may require, that lithium-ion products be recycled via a local electronics recycling/disposal process or returned to Starkey Hearing Technologies

Custom Impact


2020 Industry

- Customs only category showing positive growth Year-over-Year since Q2 2020
- Over 25% growth in customs



First time there has been growth in customs since 2015!

2020 Starkey

- Customs category up well over 50% Year-over-Year!




RIC BTE Custom


Optimizing the Custom Experience

Vija Heath
Customer Relations Team Leader and Audiologist

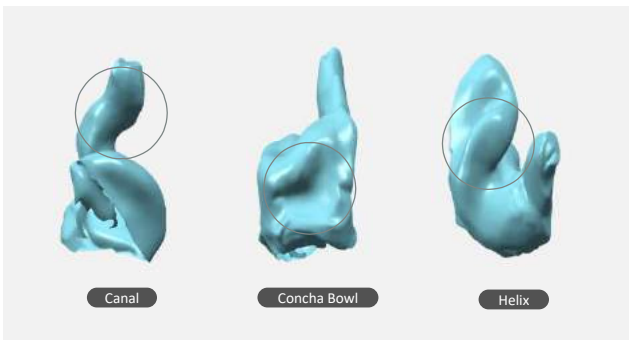




The **best physical fit** of a custom product starts with a **Good Ear Impression**

The ear dictates what we can build

Quality of *Impression* = Quality of *End Product*





Canal

Concha Bowl

Helix


Critical Landmarks and Retention



HELIX

CANAL LOCK


Orders Received



SHARP BEND

NARROW APERTURE

Orders Received

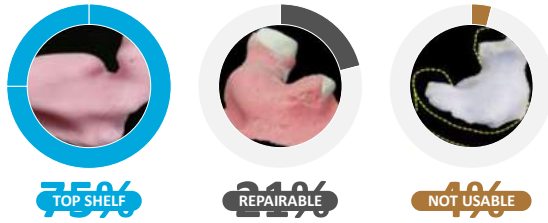


SOUND DIRECTION

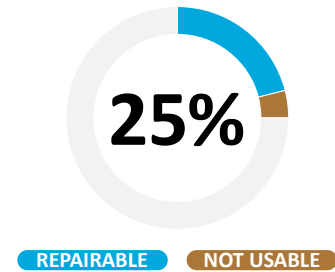
QUALITY

SHORT CANAL

Impression Grading



Impression Grading



Would Your Impressions
Make the Grade?

What are the
Key Techniques
to get the BEST ear impression



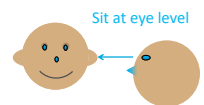
The Ear Impression: Step-By-Step Checklist

PREPARING	CREATING	FINAL STEPS
<input type="checkbox"/> Record ear history <input type="checkbox"/> Prepare tools & supplies <input type="checkbox"/> Infection control <input type="checkbox"/> Perform otoscopy	<input type="checkbox"/> Instruct the patient <input type="checkbox"/> Place the otoblock <input type="checkbox"/> Prepare & inject material <input type="checkbox"/> Wait while it cures <input type="checkbox"/> Remove impression	<input type="checkbox"/> Perform otoscopy <input type="checkbox"/> Patient discussion <input type="checkbox"/> Inspect impressions <input type="checkbox"/> Organize impressions

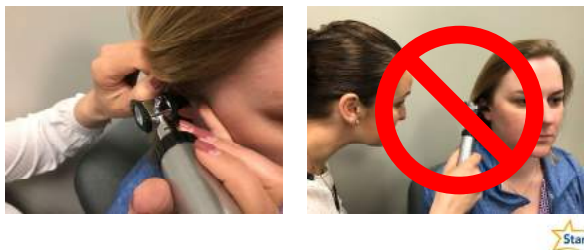
Always use good clinical judgment!

Demonstrate Proper Use of Tools

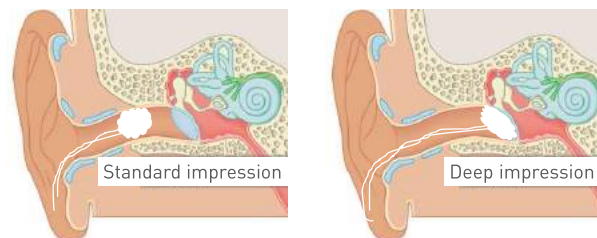
- Proper seating
- Lighting and magnification
- Good quality optical or video otoscope
- Bright, narrow earlight
- Forceps
- Curettes



Proper Bracing



Otoblock placement



Prepare the Otoblock

Flatten the dam



- Inspect ear to **determine size** of block
- **Tying** the thread prior to insertion
- **Flatten** the cotton dam before placement

Prepare the Otoblock

Flatten the dam



Lubricate



Prepare the impression material and inject into ear

- **Mix** syringe materials per manufacturer instructions or
- **Prepare** cartridge and mixing cannula per instructions
- **Bleed** small amount of material from syringe or cannula
- **Position** syringe or cannula tip aimed at block and steadily inject material into canal, concha and helix
- **Use safe technique**, brace hand against head

Prepare the impression material and inject into ear

- **Use safe technique**, brace hand against head



The Ear
is the **Boss**

Can a facemask impact impression quality?

- Consider pinna texture and mask impact

- Is the ear being pulled forward?
- Is the ear texture soft?

Consider asking the patient to remove the mask from the ears and hold it over the mouth during the impression process



Our
Focus

MANUFACTURER'S
SOUNDSCAPE

PATIENT VOICE

CUSTOMER VOICE

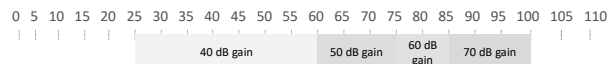
An unmatched custom
fitting experience



Custom Considerations

Choosing the Right Matrix

2000 Hz



- Hearing threshold at 2000 Hz is pivotal for receiver selection
- Speech MCL – Preferred loudness helps with receiver choice
- Speech UCL – Tolerance measurement helps with receiver choice

Custom Considerations

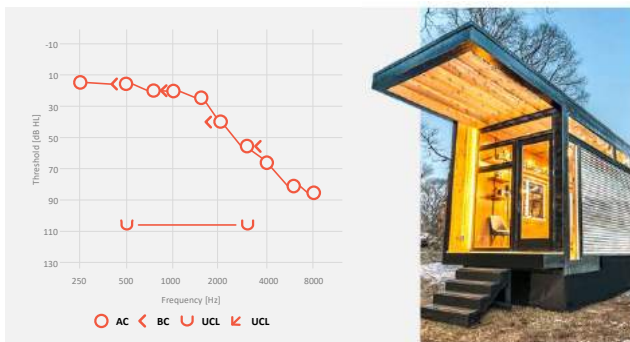
Choosing the Right Vent

- 750 Hz is the most important frequency for vent selection
- The deeper the hearing aid fit, the less occlusion there is
- If ear impressions are not deep enough or there is an anatomical issue that requires the hearing aid be positioned less deep, we need larger venting

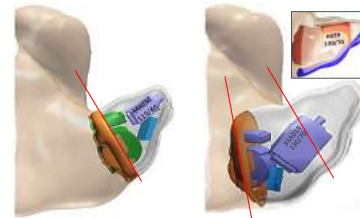
Vent
750 Hz

0	
5	
10	
15	
20	
25	
30	
35	3 Vent
40	2 Vent
45	1 Vent
50	
55	
60	
65	
70	
75	
80	
85	
90	
95	
100	No Vent or 1 Vent
105	
110	

Build it as
Small as Possible &
Chasing the Highs

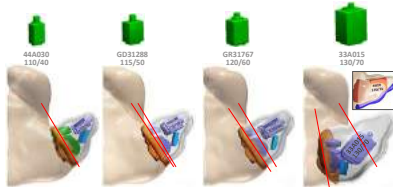


Trade Off



Trade Off

Each time you increase the receiver strength, you may force an increase in the size of the final product.



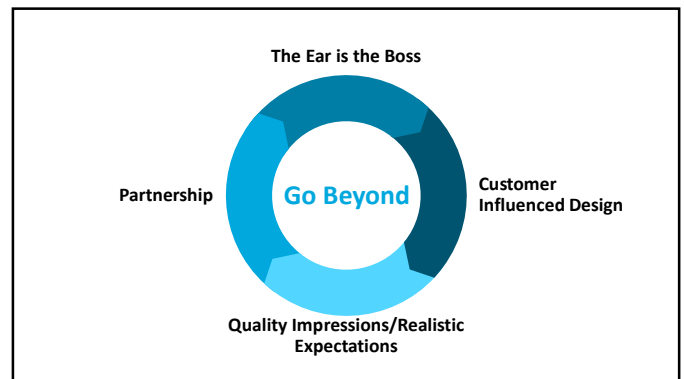
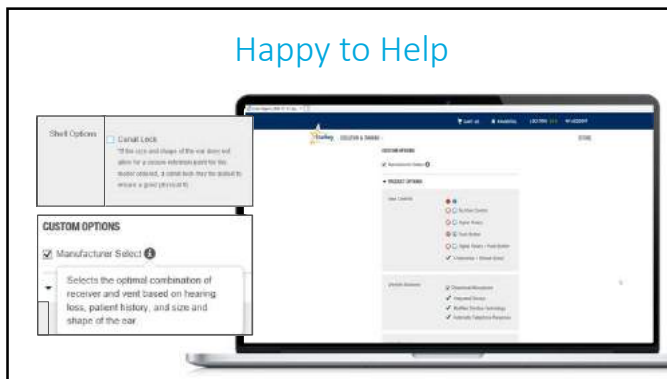
Digitizing the Manufacturing Process



Stereolithography (SLA)

Powerful 3D printing technology that produces extremely accurate and high resolution parts

Happy to Help



Consider Custom Hearing Aids

Set yourself APART



Questions

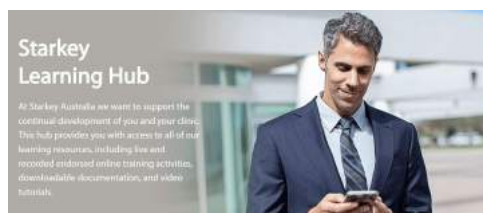
Judy Grobstein, AuD-FAAA, MACAud
Judy_Grobstein@Starkey.com



Artificial Intelligence and the Advent of the Intelligent Hearing Assistant
Tuesday 9 March 2021

It's a Wireless World: Thrive Ultimate Control App and Everyday Use
Tuesday 20 April 2021

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www.starkeylearninghub.com.au

