


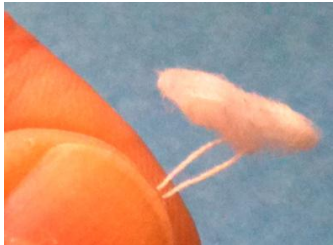
Ear Impression Techniques for the IIC

Deep ear canal impressions are fundamental to an appropriately fitted Invisible-in-the-Canal (IIC) hearing aid. With deep ear canal impressions, the key to an accurate and comfortable fit is an ear impression that represents the ear canal anatomy 8 to 12 mm beyond the second bend.

Step-By-Step Process:

- 1) **Candidacy:** Take a thorough case history. The patient must meet anatomical requirements, hearing loss guidelines and have the ability to manage insertion, removal and maintenance of the small device. There must be no medical contraindications, immunodeficiency, surgically-altered ear canals or osteomas or exostosis obstructing the canal.
- 2) **Tools:** Obtain a good light source. Good visibility is key to the safety and success of deep impression-taking methods. A quality handheld otoscope, video otoscope, optical magnifying light source or bright earlight is recommended to facilitate the correct placement of the cotton block.


- 3) **Otoscopic Examination:** Examine the ear canal carefully prior to inserting the cotton block. Make sure it is clear of cerumen, foreign objects or any anatomical issues. Caution should also be used for patients with tympanic membrane perforations or those who may be on blood thinners.
- 4) **Placing the Cotton Block:** Always use a **flattened cotton block**. Cotton is much better than foam at maintaining the shape of the ear canal, protecting the eardrum and allowing for sufficient room for the deep impression. Starkey has vented cotton dams available to help ease pressure. Lubrication is recommended (such as Oto-Ease®) to prevent adhesion to the eardrum, help maintain the flattened shape and help with insertion and removal.



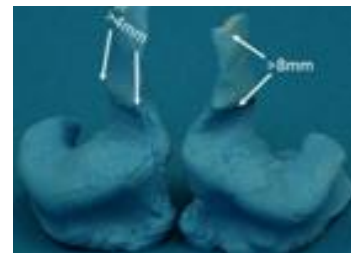
- 5) **Positioning the Cotton Block:** With a good light source, gently place the cotton block in the ear canal past the second bend, near or against the eardrum. Encourage the patient to provide feedback about what they feel during this process. Once you are sure that there are no gaps or thin areas, eliminating the possibility of the impression material “blowing by” the cotton block, you can proceed with the impression process.



NOTE: An impression gun is highly recommended, as it allows the material to flow deeper into the ear canal. It is also recommended that silicone material is used, as it will cure softer and allow for easier flow past the second bend. If necessary, standard impression material and injection method can also be used.

- 6) **Removing Cured Impression:** Manipulate the ear to break any pressure seals prior to removing the impression. Pull up, back and down on the pinna and **slowly** rotate the impression during removal.

- 7) **Measuring Impression:** Using the measurement key, make sure that the impression meets all three criteria: **height** (>8mm from 2nd bend to end of impression), **length** (>8mm- measured at 2nd bend) and **width** (>4mm- measured at 2nd bend).



Note: Even if the impression does not meet all measurement criteria, submit the impression to Starkey. Instruments may be able to be built with the faceplate at the first bend or aperture. Reposition the measurement key at either or both of these landmarks and retake the appropriate measurements. If the impression meets all three, counsel the patient appropriately as to the cosmetic appearance of the device for their specific ear.