

November 2023

Dear Patient,

I am responding to your request for clarification of confusion brought on by conflicting advice you have received from two plastic surgeons - one of whom is now refusing to perform outer ear reconstruction in patients who have elected to have ear canal surgery. The reasons given are inaccurate and will lead to harm to a portion of patients who take this advice without questioning it.

Let me explain the facts, which are based on personal experience in over 3,500 surgeries and 30 years of care of these patients from a hearing and ear canal standpoint. I caution you against taking hearing advice from doctors who have had very limited training in providing hearing and in understanding auditory development in children.

Complication Rates

First, you have relayed one of the two surgeons you have spoken with claims the complication rate of the other ear surgery is higher when an ear canal is present. In our experience, this is not true. The complications of microtia repair are the same whether an ear canal is performed or not – in our hands.

Of course, any surgery (including canalplasty) has potential complications – any surgeon who does not agree with this is not to be trusted – but, in my opinion, the small percentage of complications with canalplasty are dwarfed by the huge upside of natural hearing. You may be interested to know: the complications from ear canal procedures are significantly less frequent than the complications associated with outer ear reconstruction. Again, the known complications from ear canal surgery do not increase the complication rate of outer ear surgery. You can find a full discussion of complications in our lectures (provided below). In addition, we send a written list of potential complications to all patients in preparation for any upcoming surgery.

Importance of Natural Hearing & Early Restoration

While not every patient is a candidate for ear canal creation, the benefits of natural hearing are significant. For more information on hearing, please see a 1.5 hour lecture I present on these and other subjects, which can be viewed on our website here: https://www.atresiarepair.com/live/index.html. You will find thorough coverage of every

aspect of ear canal surgery in this lecture. Each patient has a unique solution for their situation, anatomy, medical condition and stage in life.

You may also want to educate yourself on the importance of maximum hearing restoration during the critical period of development (before 5 years of age). In short, the brain has a 'window' of time where it can develop with proper sound input. Beyond that time, the brain's ability to use sound is diminished leading to permanent, lifelong impediments to hearing function – particularly in background noise. I have provided information in a dedicated lecture found here: https://www.atresiarepair.com/live/index.html

Frequently, I hear that it is "best to wait and let the patient decide if he/she wants an ear canal." Waiting will allow the benefits of the critical period of development to expire and may lead to lifelong impairment of brain function even if the hearing ability is restored later in life.

I have operated on multiple patients who had outer ear surgery performed by one of these surgeons who were not told about the option of surgery to provide hearing. In the last two years, I have treated multiple patients cared for by this surgeon with bilateral outer ear surgery and no canal surgery. Families contacted me to determine if they were candidates for canal surgery and natural hearing only after having heard about it from other families on social media and direct contact. All of these patients have had canalplasty surgery and are now free of hearing devices and hearing normally. One of the 6 patients had a complication with the preexisting outer ear prosthesis which had to replaced in a later surgery. This patient had a type of implant that is poorly designed and does not allow adequate space for ear canal placement. We do not use this implant for that reason at The California Ear Institute / International Center for Atresia Microtia Repair for that reason.

It is true that ear canal surgery performed <u>after</u> reconstruction of the outer ear with Porous Polyethelene (Medpor, Su-Por, 3D Implants, etc.) has a higher complication rate. For that reason, for many years, I have recommended the ear canal surgery be performed before the outer ear surgery or at the same time as outer ear reconstruction in a Combined Atresia Microtia (CAM) repair. Again, both CAM surgery and separate procedures for canal and outer ear do not have higher complication rates in our practice.

Importance of Screening CT Scan

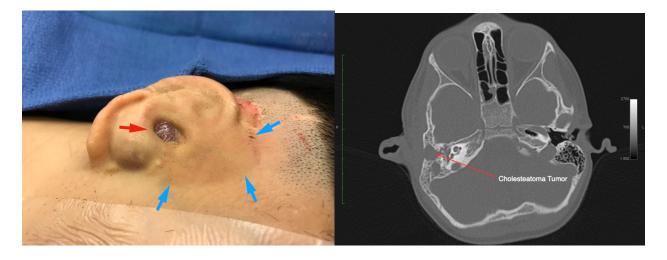
Another grave concern I have is many patients of one of these surgeons (and other surgeons around the world) are having outer ear reconstruction without a screening CT scan. Every patient should have a CT scan prior to microtia repair, regardless of whether they choose to pursue surgery for hearing, and it is considered malpractice for a physician to operate on a patient without a CT scan. If this is not done, a portion of patients (6% in my database of over

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6,000 patients) will miss the diagnosis of a tumor of the middle ear known as a cholesteatoma. This tumor is present at birth and can become life threatening later if not correctly identified using a CT scan. As a result of foregoing CT scan screening, some patients have had outer ear reconstruction over an unidentified tumor, which grows silently until it erodes into the inner ear or brain cavity causing life-threatening complications like meningitis. You should be aware that surgeons who do not include CT scan and hearing evaluation in their patients prior to performing outer ear reconstruction have called me emergently from the operating room for advice, having then discovered a tumor that they did not diagnose prior to surgery.

I also would highly advise you to have your CT read by a qualified hearing specialist (called an Otologist or Otologist) and not to rely on the radiology report to provide clearance. Radiologists see scans for atresia a few times in their lives, whereas Otologists specializing in Atresia and Microtia review these scans regularly. We have numerous examples where Radiologists have missed Cholesteatoma and other tumors that we have subsequently identified. For this reason, I review every scan personally among our patients.

Here is an example of a patient who had a Medpor implant placed over an undiagnosed tumor without getting a CT scan first. You can see the tumor pushing the implant upwards and you can clearly see the now very large tumor on CT scan.



Superior Hearing Quality with Canalplasty

Finally, please educate yourself regarding the superiority of hearing via a natural ear canal vs. other methods such as implanted hearing devices. In short, patients with implantable hearing

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devices perform poorly with detecting directional sound, and more importantly hearing function rapidly deteriorates in noisy environments with bone conduction devices (BAHA, Ponto, Osia, etc). In contrast, patients with natural hearing (including canalplasty) have directional sound capability and superior hearing in noise capacity. While implantable hearing devices provide useful function to some patients who are not canal candidates, this remains inferior hearing in comparison to a properly created functional ear canal.

In conclusion, the question remains: why would surgeons make these claims? One reason is they may in fact be telling you truth – for surgery done in their hands. Again, in our hands, these claims are unfounded and are not factual. It is certainly harder to work as a team with both the outer ear and hearing considered, but in my experience the extra effort and small risk is beyond worthwhile to give children with a good CT score the ultimate solution for Congenital Aural Atresia Microtia.

I felt compelled to communicate with you to urge you to consider facts and not propaganda when deciding on the course of action for you or your family member. If you have any further questions, please don't hesitate to contact us by email at atresiarepair@calear.com and our team will help you. In my opinion, it would be ludicrous to perform ear canal surgery without regard to outer ear reconstruction, and – likewise – it is at least as ludicrous to reconstruct the cosmetic component of this deformity without considering the critical functional, life-impacting aspect of functional hearing provided by an ear canal.

Sincerely yours,

Dr. Joseph B. Roberson Jr California Ear Institute, Chief Executive

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