

# UC Davis

## Dermatology Online Journal

### Title

Use of a thermoplastic splint to prevent auditory meatus stricture

### Permalink

<https://escholarship.org/uc/item/8vv4m2gj>

### Journal

Dermatology Online Journal, 28(3)

### Authors

Mehrzaad, Mehrnaz  
Danesh, Melissa J  
Eisen, Daniel B

### Publication Date

2022

### DOI

10.5070/D328357795

### Copyright Information

Copyright 2022 by the author(s). This work is made available under the terms of a Creative Commons Attribution-NonCommercial-NoDerivatives License, available at <https://creativecommons.org/licenses/by-nc-nd/4.0/>

Peer reviewed

# Use of a thermoplastic splint to prevent auditory meatus stricture

Mehrnaz Mehrzad<sup>1</sup> BA, Melissa J Danesh<sup>2</sup> MD, Daniel B Eisen<sup>2</sup> MD

Affiliations: <sup>1</sup>School of Medicine, University of California Davis, Sacramento, California, USA, <sup>2</sup>Department of Dermatology, University of California Davis Health, Sacramento, California, USA

Corresponding Author: Daniel B Eisen MD, 3301 C Street, Suite 1400, Sacramento, CA 95816, Tel: 916-734-6111, Email: [deisen123@gmail.com](mailto:deisen123@gmail.com)

*Keywords: clinical research, dermatology, mastoid flap, Mohs micrographic surgery, oncology, surgical*

To the Editor:

In this manuscript, we demonstrate a solution to a clinical challenge that arose following Mohs micrographic surgery of the concha cavum and auditory meatus.

Following Mohs micrographic surgery for infiltrative basal cell carcinoma of the concha cavum of the left ear, a large chonchal and auditory meatus defect was reconstructed with a staged pull-through mastoid/lateral neck interpolation flap. At two weeks follow up, there was partial distal necrosis of the flap with eschar and fibrinous debris occluding the ear canal resulting in hearing impairment. Further contraction of the wound was feared.

Debridement of necrotic tissue with gentle removal of eschar and fibrinous debris in the external auditory canal was performed using a cotton tipped applicator. In order to prevent future blockage

during re-epithelialization of the inner ear canal and to maintain its patency, the Medtronic Xomed Thermasplint Single (Medium) was utilized to stent the ear (Figure 1). We made the stent by soaking the splint in hot water. After the splint became malleable it was rolled around a piece of gauze that had been previously pushed into the ear canal, such that its shape approximated the canal. After the stent hardened it was pushed into the auditory meatus beyond the flap and into the de-epithelized area. The patient was instructed to remove the splint daily, wash it with soap and water, and replace it using topical petrolatum for lubrication. At the 3-week follow up, the site was fully re-epithelized with a patent meatus. The patient noted return to baseline hearing and was happy with the outcome (Figure 2).

To the best of our knowledge, this is the first report in the literature of using the thermasplint to create a



Figure 1. Thermal plastic splint used to stent the ear post-surgery.



Figure 2. Three weeks follow up after removing the splint.

stent for preventing blockage during re-epithelialization of the ear canal following reconstruction surgery.

### [Potential conflicts of interest](#)

The authors declare no conflicts of interest.