

BOARD-CERTIFIED PLASTIC SURGEON

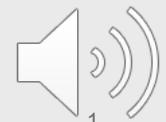
# Sachin M. Shridharani, MD, FACS



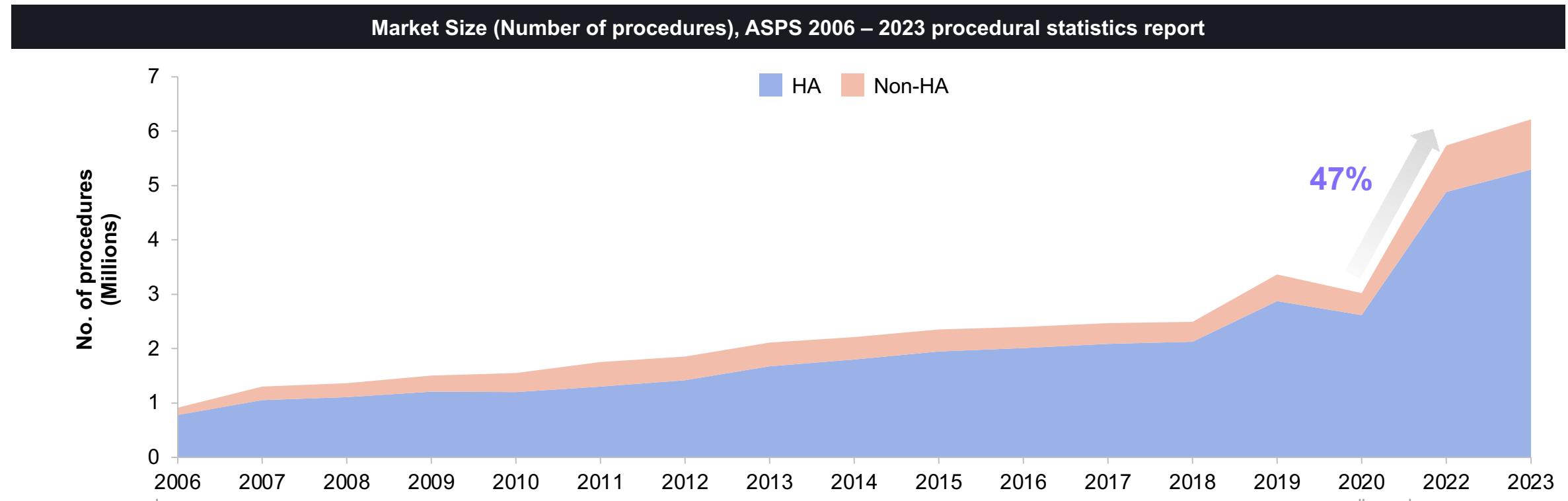
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Associate Clinical Professor - Washington Univ. – St. Louis  
Division of Plastic and Reconstructive Surgery  
Board Member at Large – The Aesthetic Society



# Current US Dermal Fillers Market Size Shows Steady Growth and Expansion in Recent Years



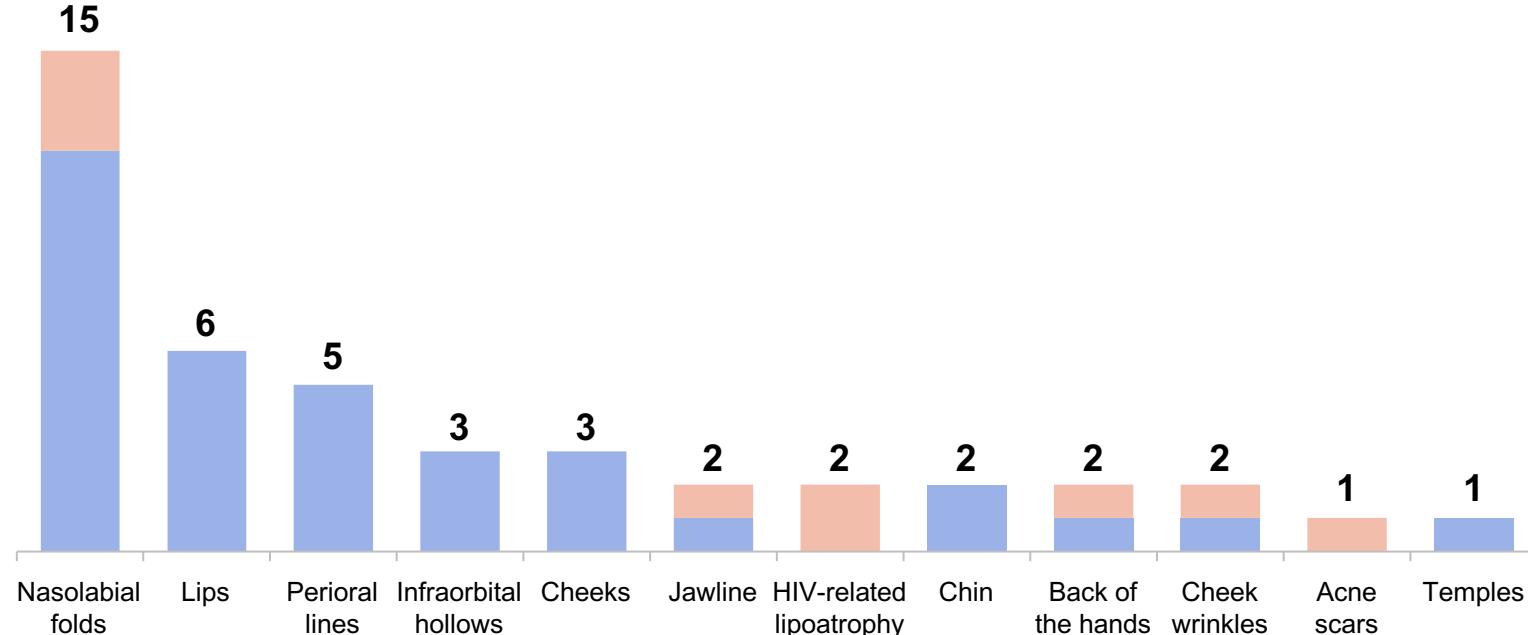
## Key Takeaways

Steady growth in dermal filler procedures between 2006 – 2020

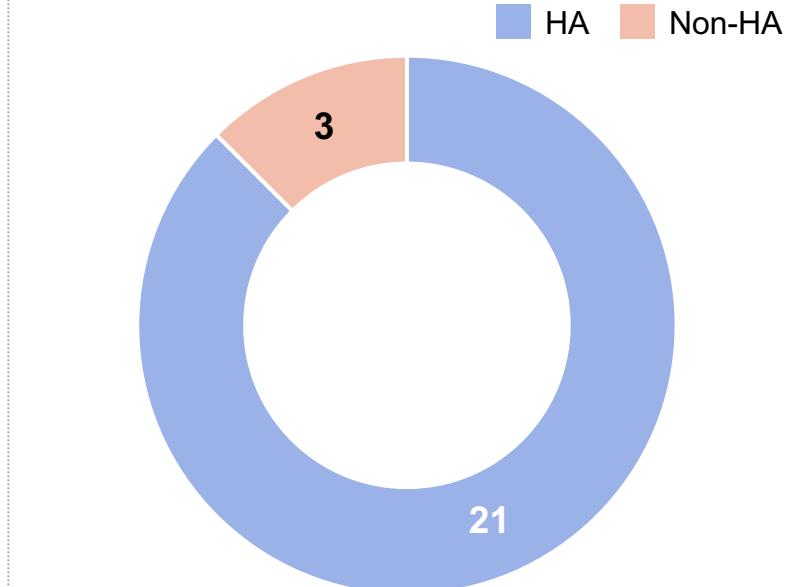
47% increase reported between 2020 – 2021 as the dermal filler market expanded with new products and indications  
Non-HA dermal filler procedures had a 110% increase between 2020 – 2021 with more demand for biostimulator products

# Current Dermal Filler Landscape

Number of products approved per indication



Number of Dermal Fillers FDA-Approved

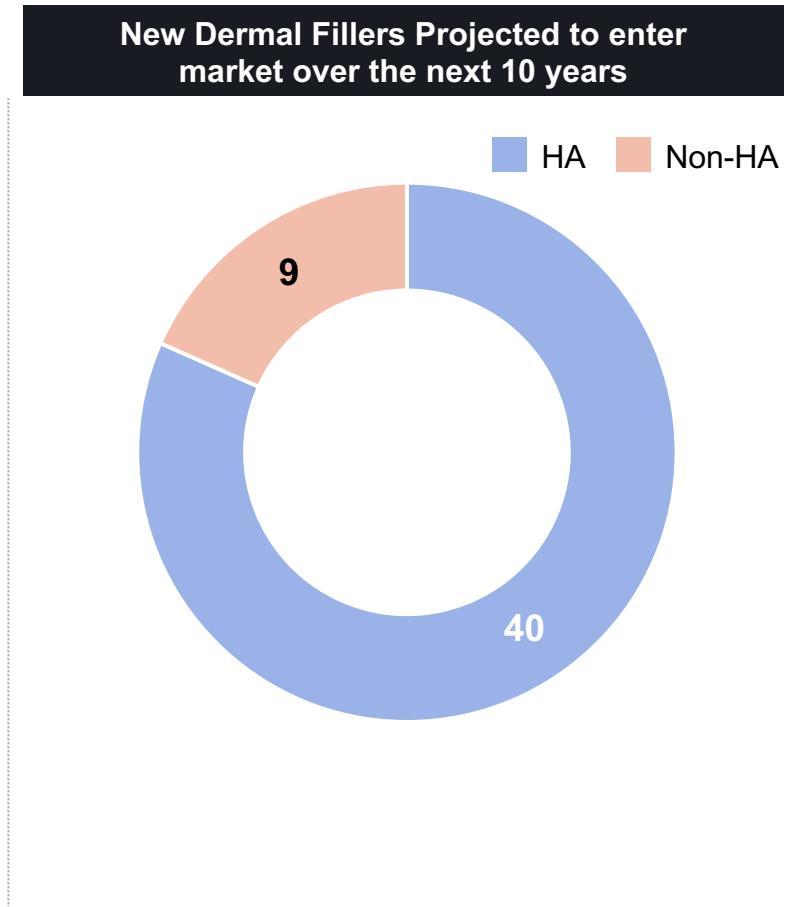
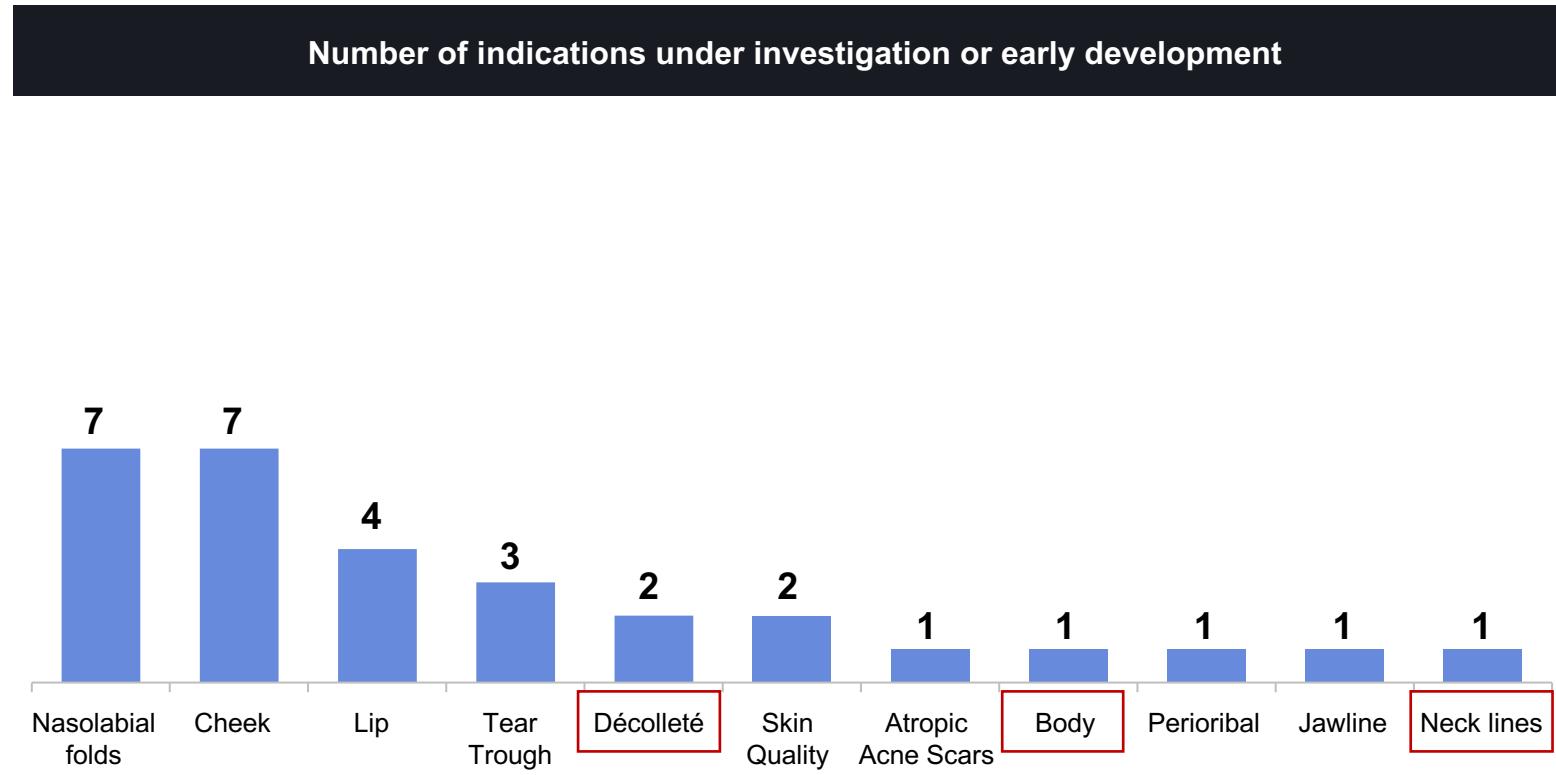


## Key Takeaways

The current US dermal filler market includes 24 different products

- Nasolabial folds is the most common indication in the current US market for dermal fillers followed by lips

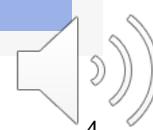
# Future Dermal Filler Landscape



## Key Takeaways

With increasing innovations from existing companies and new market entrants in the US, the dermal filler market is projected to expand over the next 10 years with

9 new indications, including body  
40 anticipated new dermal filler products



# Growing demand: accelerated research and publications for décolletage treatments

Body aesthetic treatments are becoming increasingly popular<sup>1,2</sup>



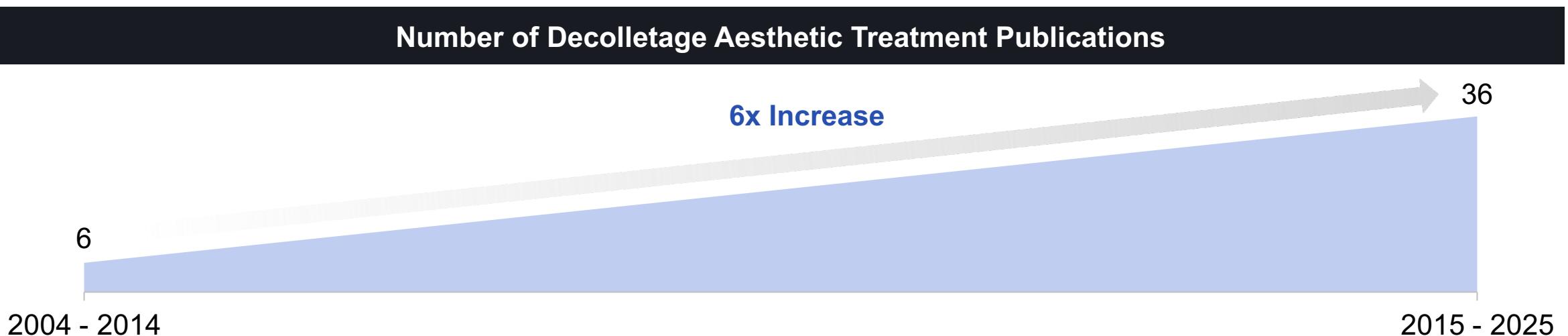
The décolletage area is a growing patient concern, with increasing demand for aesthetic solutions<sup>1,2</sup>



Over the past decade, the number of publications on aesthetic treatments for the décolletage has increased 6x compared to the period from 2004 to 2014<sup>3</sup>



Number of Décolletage Aesthetic Treatment Publications



1. Research and Markets. Body Augmentation Fillers Report, 2024. (<https://www.researchandmarkets.com/reports/6032681/body-augmentation-filters-market-product>)

2. Grand View Research. Body Augmentation Fillers Market Analysis, 2024. (<https://www.grandviewresearch.com/industry-analysis/body-augmentation-filters-market-report>)

3. Pubmed search for 'Décolletage'. Conducted July 21, 2025

# Unmet need: Addressing deeper wrinkles in decolletage area

## Key Takeaways

A few treatment modalities exist for the decolletage area (topicals, chemical peels, laser treatments), but only address fine lines and pigmentation



With increasing demand for correction of deeper wrinkles in the decolletage area, there are no treatments currently approved and available in the US

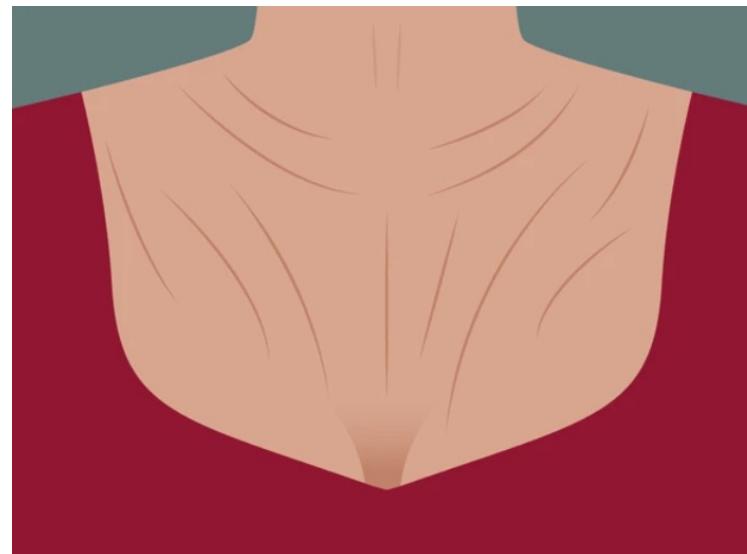


Dermal fillers address that unmet need and are currently under investigation



### Fine lines & pigmentation

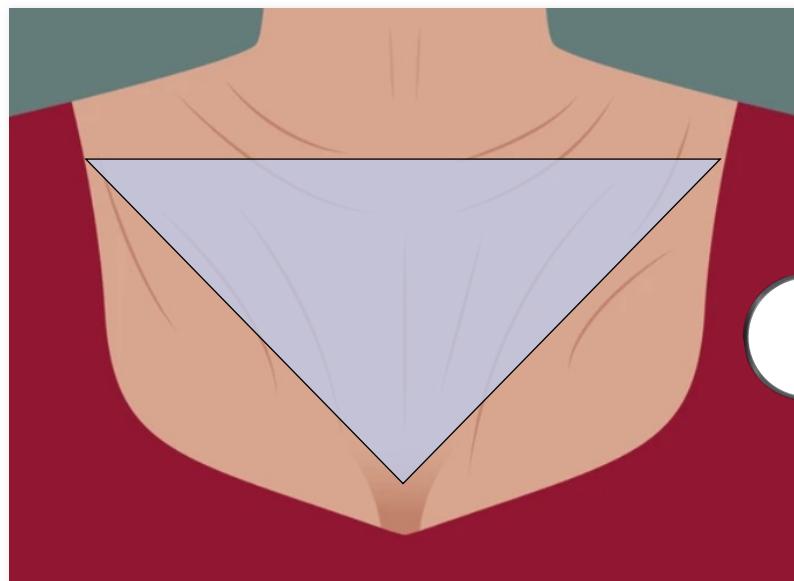
- Topicals
- Chemical peels
- Laser treatments



### Deeper wrinkles

- Dermal Fillers

# Anatomical Considerations for the Decolletage Area



**Treatment boundaries do not allow for breast tissue to be injected**

## Anatomical Considerations

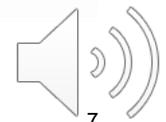
-  Goal is to treat wrinkles in the decolletage area, not the breast tissue
-  Investigational studies require palpating and assessing the region to distinguish treatment boundaries and avoiding breast tissue
-  Low risk of vascular compromise due to relatively safe area with no terminal circulation
-  Very low risk of thoracic cavity penetration with thin needles used with dermal fillers
-  Dermal fillers injected more superficially in the skin in the decolletage area for correction of wrinkles

## Key Takeaways

The decolletage treatment area is distinguished from breast tissue upon physical exam and the area is safe to inject



The breast tissue is not injected

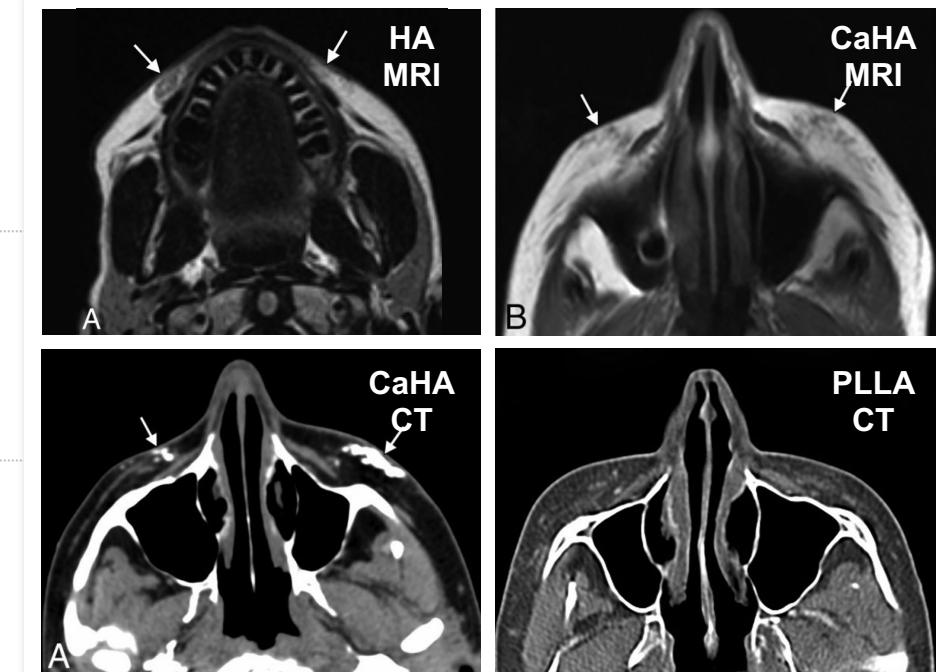


# Diagnostic imaging considerations

Dermal fillers are readily identifiable on imaging modalities and do not compromise signal integrity

These are not permanent implants and imaging signals will go away over time as the body gradually metabolizes the product

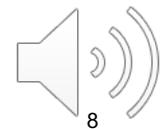
	Hyaluronic Acid (HA):	Calcium Hydroxyapatite (CaHA):	Poly-L-Lactic Acid (PLLA):
 <b>MRI<sup>1</sup></b>	Low appears similar to water	High intensity microcalcifications	Soft spots with surrounding fat
 <b>X-RAY/CT<sup>1</sup></b>	Low-density opaque signal	High intensity microcalcifications	Subtle soft tissue foci
 <b>Ultrasound<sup>2</sup></b>	Anechoic (dark spots) or hypoechoic (brighter dark spots)	ill-defined heterogenous hyperechoic mass-like deposits on a hypoechoic background	



Imaging from Ginat DT, Schatz CJ. AJNR Am J Neuroradiol. 2013 Aug;34(8):1488-95.

1. Ginat DT, Schatz CJ. AJNR Am J Neuroradiol. 2013 Aug;34(8):1488-95.

2. Schelke L, Lowrey N, Mojallal A, et al.. Dermatol Surg. 2024 Oct 1;50(10):946-952.



# Potential complications: Dermal filler migration



## No literature to support dermal filler migration after correction of decolletage wrinkles

- Less risk of product migration due to the lack of mechanical movement in this area



## More superficial injections in the decolletage does not allow for filler migration into deeper areas of the skin (i.e., breast tissue)<sup>1</sup>

- Dermal filler migrates towards the path of least resistance (i.e. needle track)
- Small volumes of dermal filler are used per injection site in decolletage region (decreases risk)
- Microparticles of CaHA and PLLA do not migrate due to their biophysical properties



## Breast augmentation case: One case of HA filler migration into lymph node after breast augmentation after large volume was used<sup>2</sup>



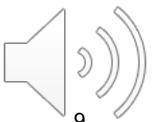
## Migration has been reported in facial treatments with HA fillers<sup>3</sup>

- Likely due to unique anatomy of the face and poor injection technique
- The unique decolletage anatomy combined with superficial injection of product pose minimal migration risk in this area

1. Schelke L, Lowrey N, Mojallal A, et al. *Dermatol Surg*. 2024 Oct 1;50(10):946-952.

2. Trignano E, Baccari M, Pili N, Serra PL, Rubino C. Complications after breast augmentation with hyaluronic acid: a case report. *Gland Surg*. 2020 Dec;9(6):2193-2197

3. Jordan DR, Stoica B. Filler Migration: A Number of Mechanisms to Consider. *Ophthalmic Plast Reconstr Surg*. 2015 Jul-Aug;31(4):257-62.

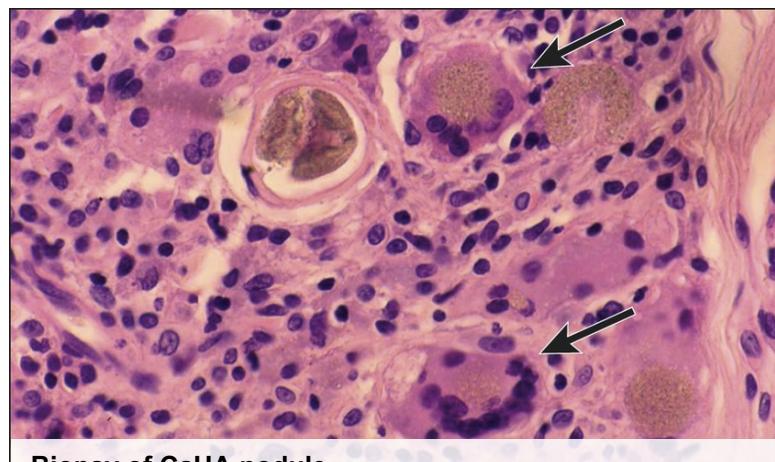


# Potential complications: Nodules and inflammatory reactions

Although rare, adverse events such as nodule formation, inflammatory reactions, or infections can occur<sup>1</sup>

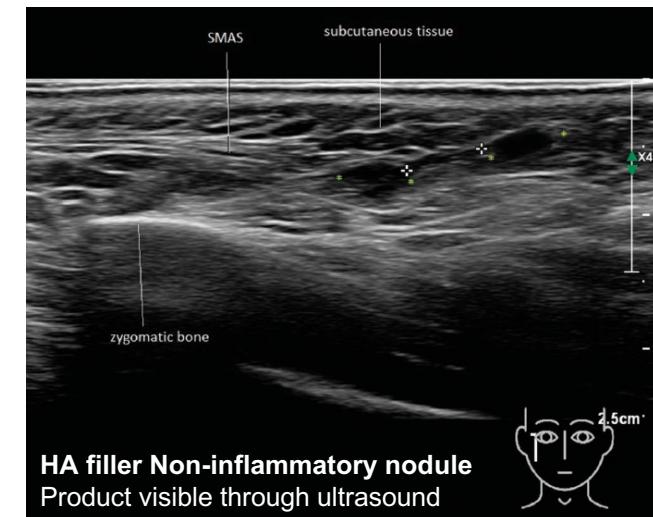
- Usually are temporary reactions that resolve over time or can be treated

These complications are typically acute, easily distinguished by clinical presentation, and should not mimic or suggest any breast disease or malignancy



**Biopsy of CaHA nodule**  
CaHA microspheres easily identified by pathology

Image from Holzapfel AM, Mangat DS, Barron DS.  
Arch Facial Plast Surg. 2008 Sep-Oct;10(5):335-8



**HA filler Non-inflammatory nodule**  
Product visible through ultrasound

Image from Schelke LW, Decates TS, Cartier H, et al. Dermatol Surg. 2023 Jun 1;49(6):588-595.

1. Rohrich RJ, Bartlett EL, Dayan E. Plast Reconstr Surg Glob Open 2019;7:e2172.

# Training Considerations

Know anatomical considerations

Follow the label

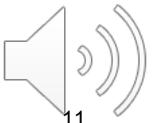
Be able to identify  
adverse events



Prior to injection,  
perform physical exam  
of treatment region

Use the correct  
injection technique

Inform patient on expectations  
with diagnostic imaging



# Thank You

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Sachin M. Shridharani, MD, FACS

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