



ADVANCED LEVEL



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Supporting Excellence in Facial Aesthetics

# Treating the Periorbital and Upper Face Areas



✚  
**DOKTERFRÖDOGAYMANS**

# Contents: Treating the periorbital region



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Introduction



Anatomy of the periorbital region



Effects of ageing on the periorbital region



Treatment overview



Injection techniques



Potential complications

# The periorbital features are the most scrutinised of the face<sup>1</sup>



- The upper face is:<sup>1,2</sup>
  - The aesthetic centre of the face
  - Where we look to estimate age
  - The region we use to judge a person's emotional state
- The periorbital region is one of the first to show the effects of ageing<sup>3</sup>

1. Massry GG et al (eds). *Master Techniques in Blepharoplasty and Periorbital Rejuvenation*. Tan KS Chapter 2. Springer 2011.

2. Perlman SB et al. *PLoS One* 2009;4(6):e5952.

3. Kranendonk S & Obagi S. *Dermatol Surg* 2007;33:572–8.



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# Anatomy of the periorbital region



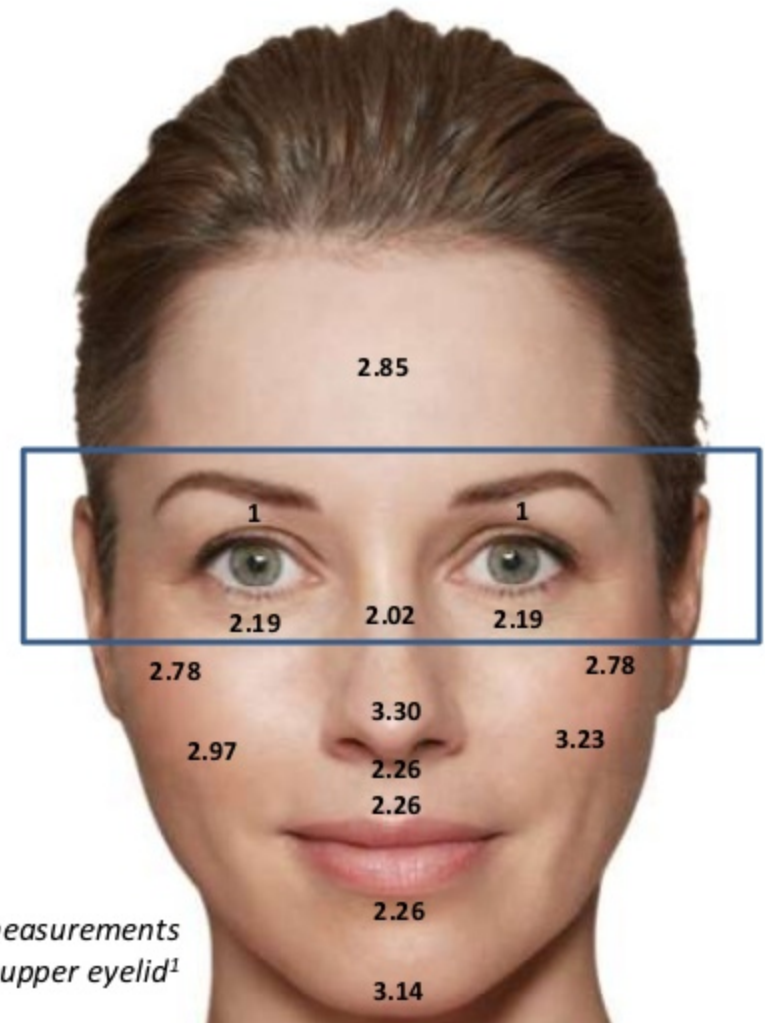


**The skin around the orbita is the thinnest of the face<sup>1</sup>**



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- In general, facial skin is thinner in the upper face compared with the lower face region<sup>2</sup>
- During ageing, skin thickness *increases* on the forehead and cheeks but *decreases* in infraorbital areas<sup>2</sup>



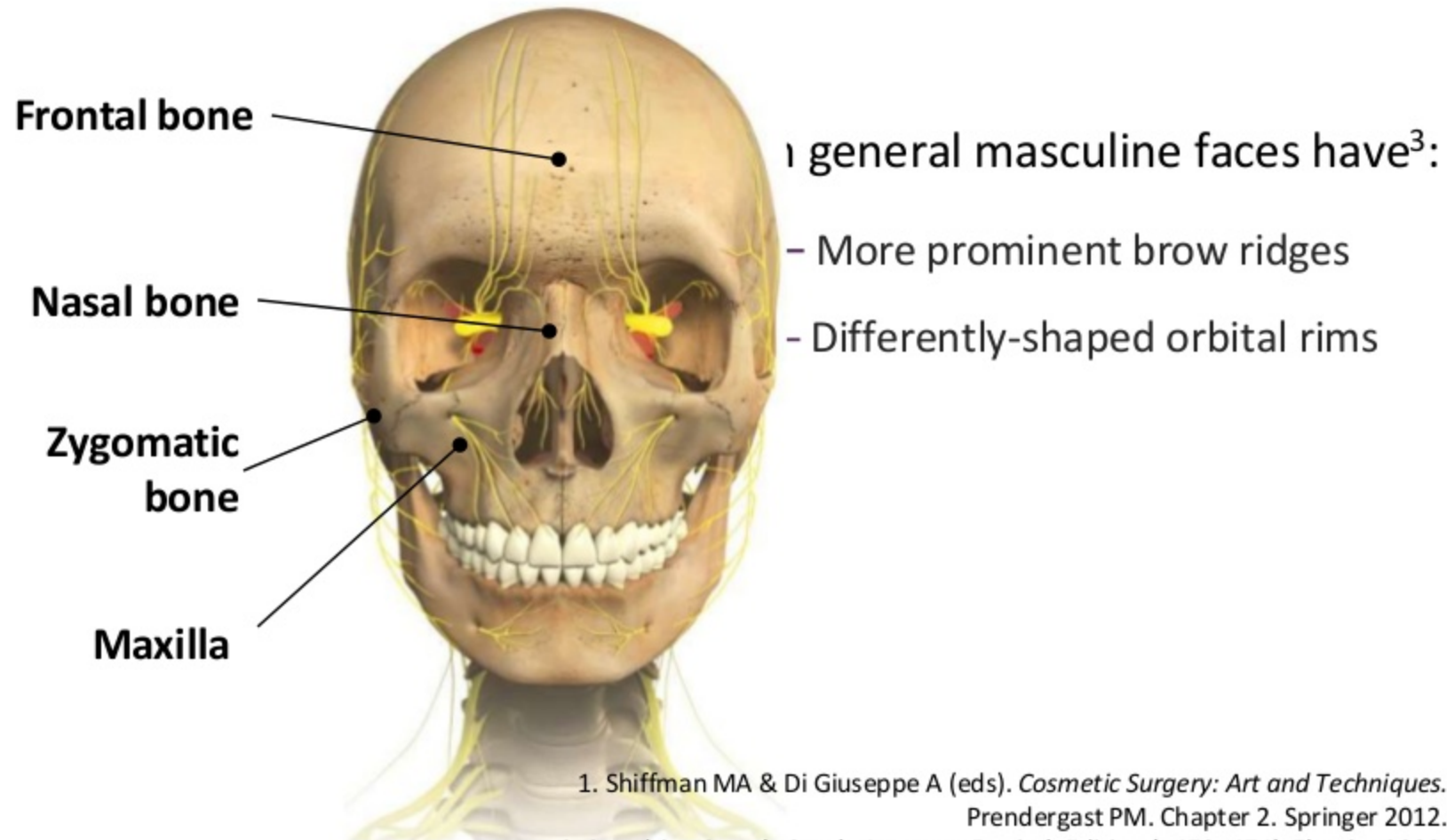
*Skin thickness measurements  
relative to the upper eyelid<sup>1</sup>*

\*Skin thickness measurements taken from three adult cadavers, two female and one male, aged 51–82 years.<sup>1</sup>

1. Ha RY et al., *Plast Reconstr Surg*. 2005 May;115(6):1769-73.

2. Pellacani G & Seidenari S, *Acta Derm Venereol.* 1999 Sep;79(5):366-9.

# Facial appearance is influenced by the underlying facial bones<sup>1,2</sup>

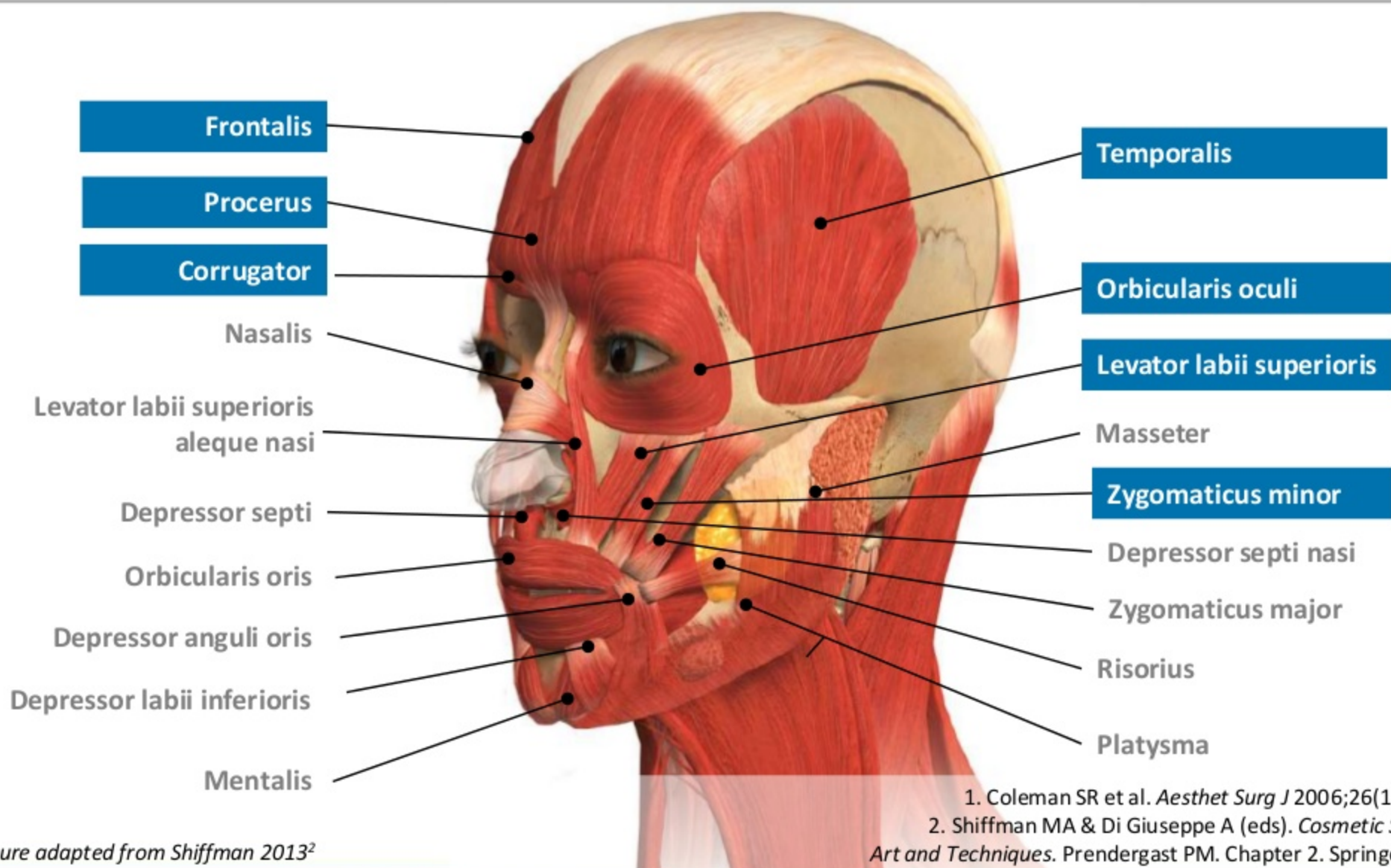


1. Shiffman MA & Di Giuseppe A (eds). *Cosmetic Surgery: Art and Techniques*. Prendergast PM. Chapter 2. Springer 2012.
2. Standing S et al. *Gray's Anatomy Fortieth Edition* (p473–474). Elsevier 2008.
3. Mendelson B & Wong CH. *Aesthetic Plast Surg* 2012;36(4):753–60.

# Repeated action of facial muscles over time leads to development of rhytides<sup>1</sup>



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1. Coleman SR et al. *Aesthet Surg J* 2006;26(15):S4–9.

2. Shiffman MA & Di Giuseppe A (eds). *Cosmetic Surgery: Art and Techniques*. Prendergast PM. Chapter 2. Springer 2013.

Figure adapted from Shiffman 2013<sup>2</sup>



# Subcutaneous facial fat exists in distinct anatomical compartments<sup>1</sup>



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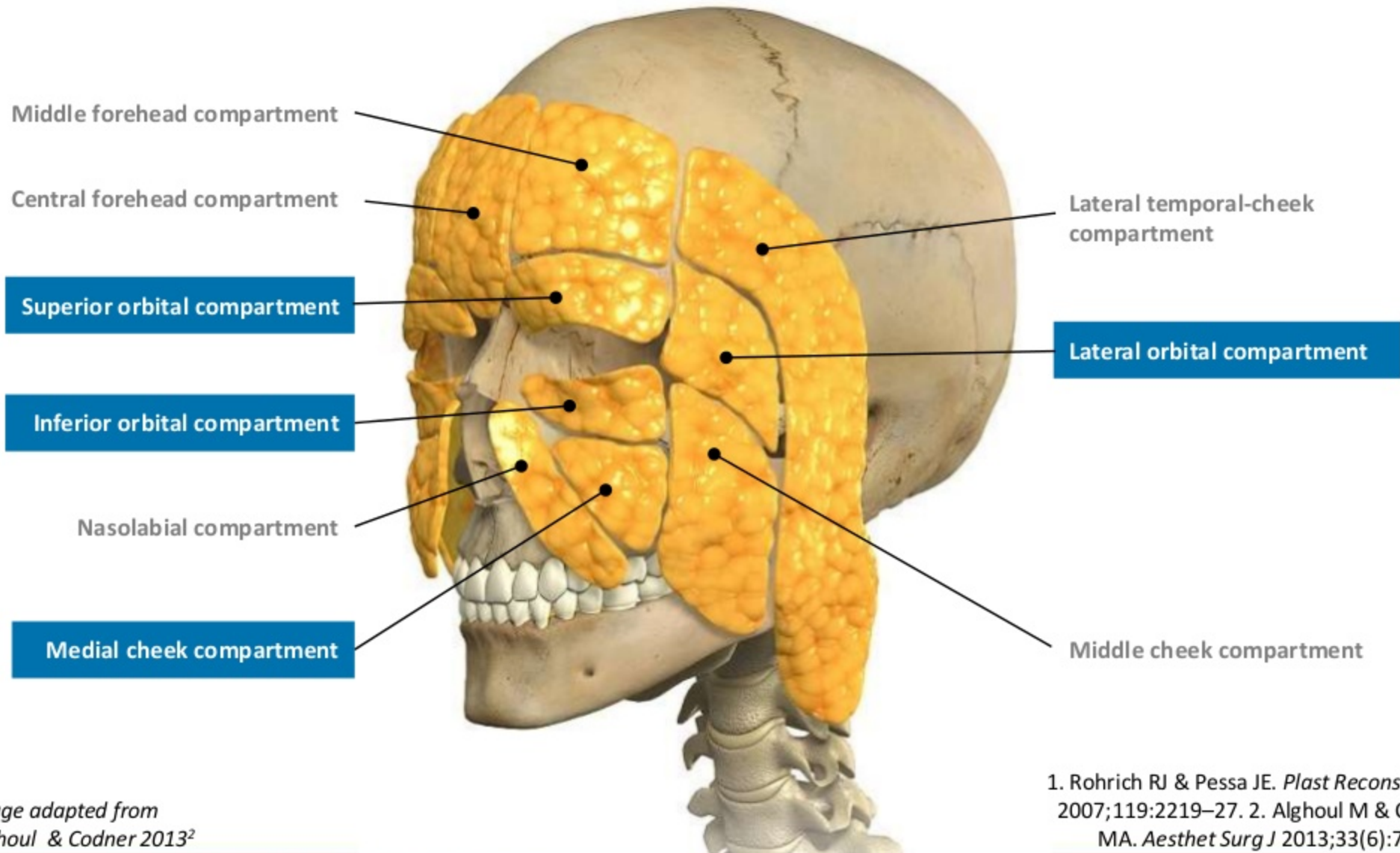


Image adapted from  
Alghoul & Codner 2013<sup>2</sup>

1. Rohrich RJ & Pessa JE. *Plast Reconstr Surg* 2007;119:2219–27. 2. Alghoul M & Codner MA. *Aesthet Surg J* 2013;33(6):769-82.



## Temporaal fat pad

Lateraal orbital fat pad

Frontaal fat pad

Malar fat pad

Prejowl fat pad

Superieur orbital fat pad

Inferieur orbital fat pad

Nasolabial fatpad





Temporaal fat pad

**Lateraal orbital fat pad**

Frontaal fat pad

Malar fat pad

Prejowl fat pad

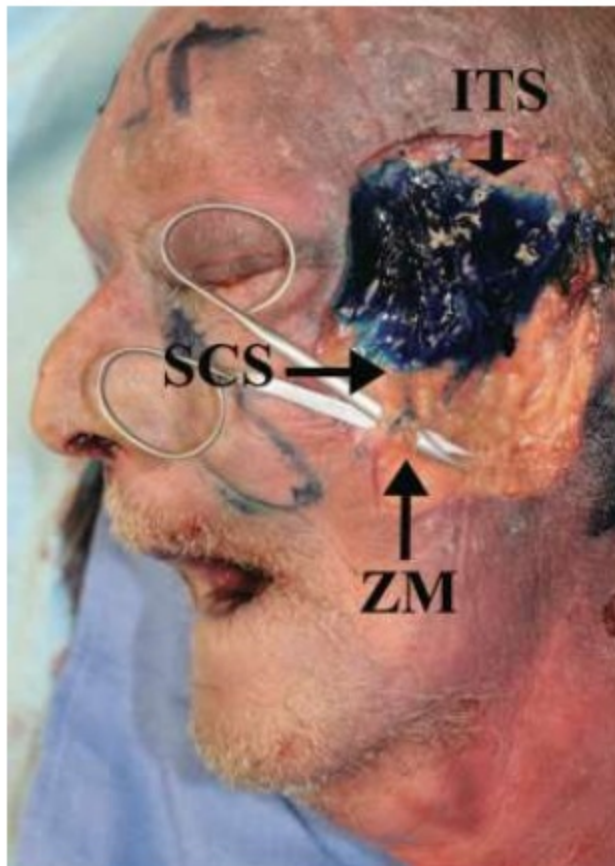
Superieur orbital fat pad

Inferieur orbital fat pad

Nasolabial fatpad







inferior temporal  
septum

superior cheek septum

Temporaal fat pad

Lateraal orbital fat pad

**Frontaal fat pads**

Malar fat pad

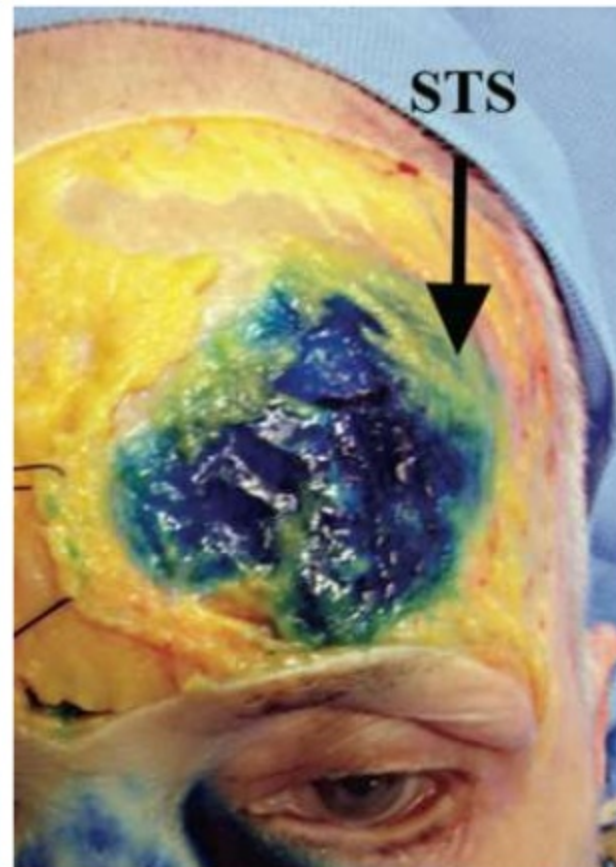
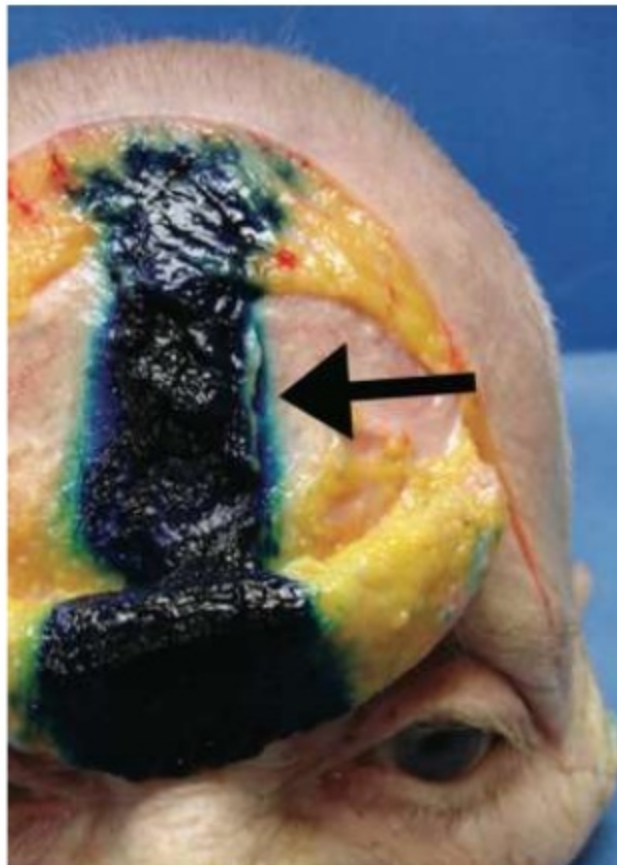
Prejowl fat pad

Superieur orbital fat pad

Inferieur orbital fat pad

Nasolabial fatpad



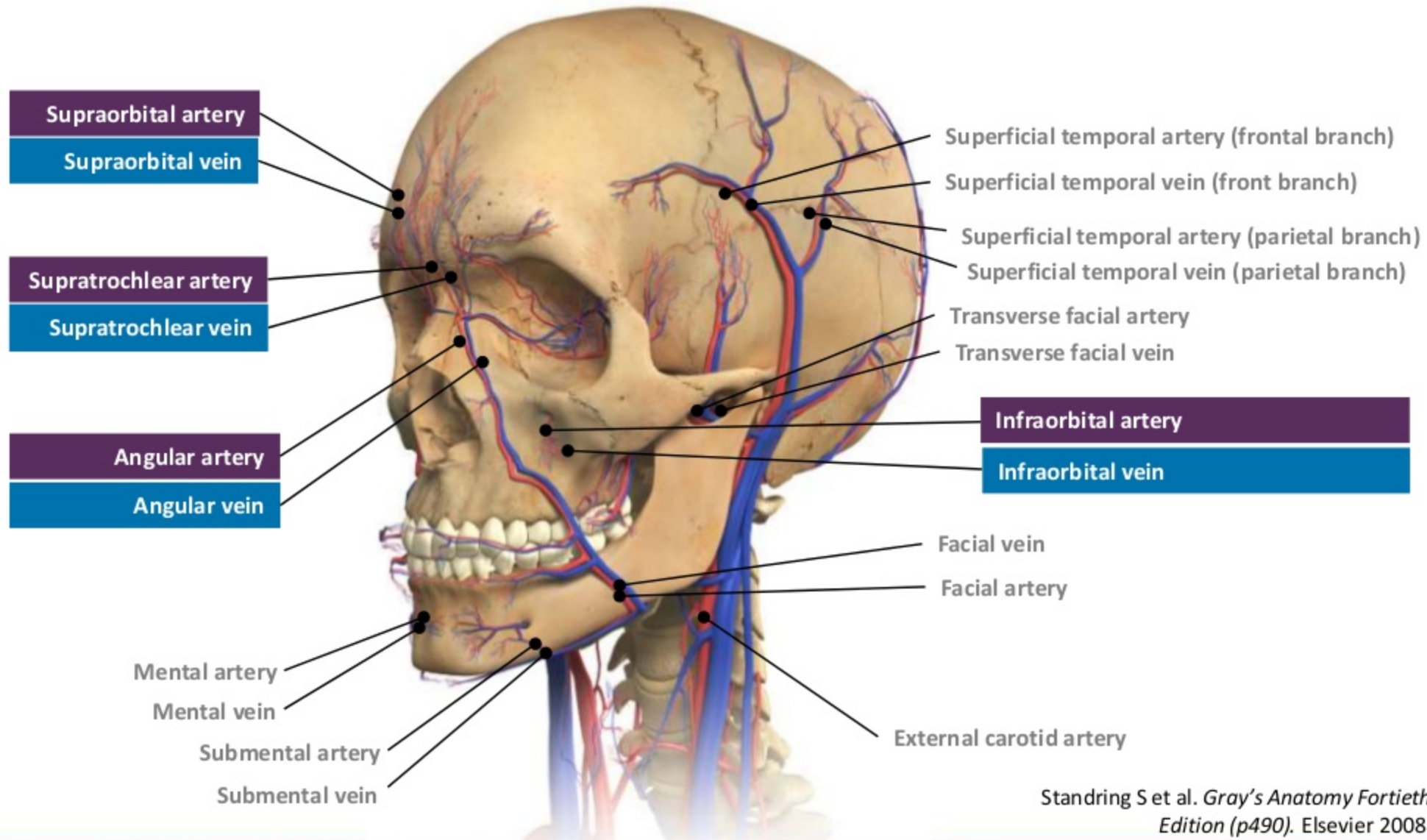




# Inspection of the vascular structures prior to injecting



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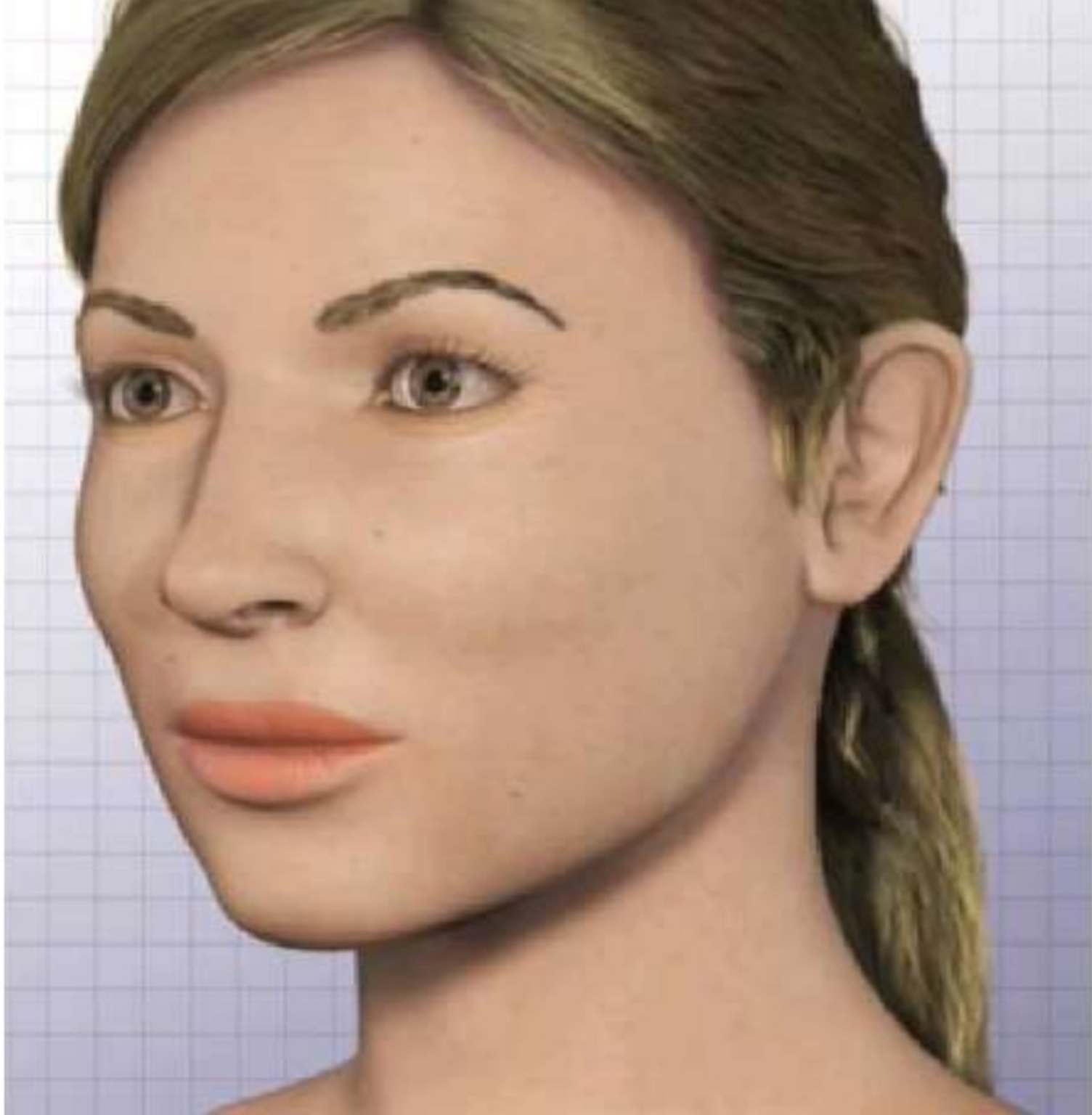


Standing S et al. *Gray's Anatomy Fortieth Edition* (p490). Elsevier 2008.



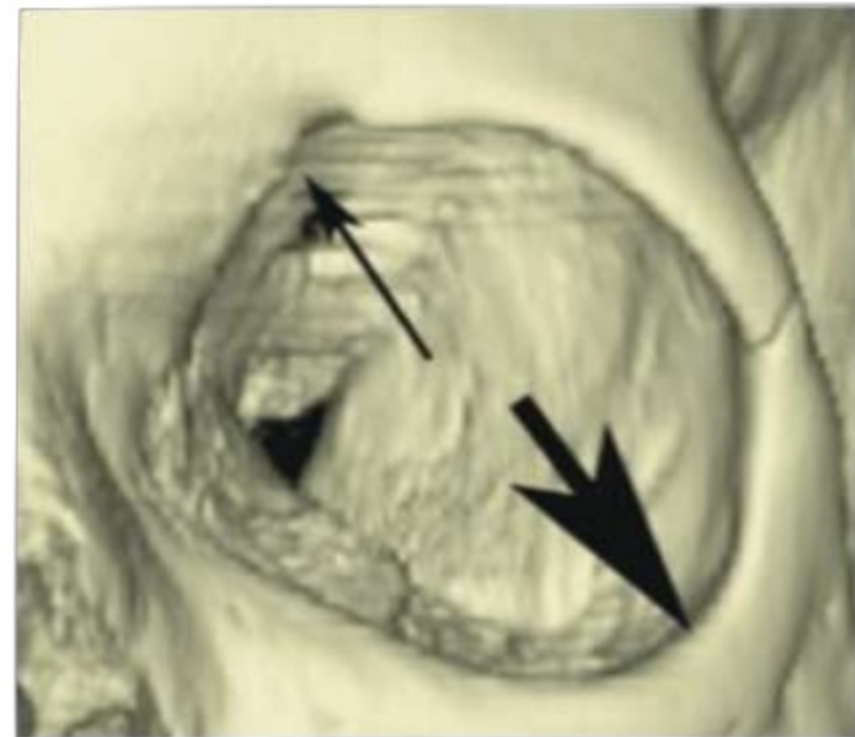
# Effects of ageing on the periorbital region





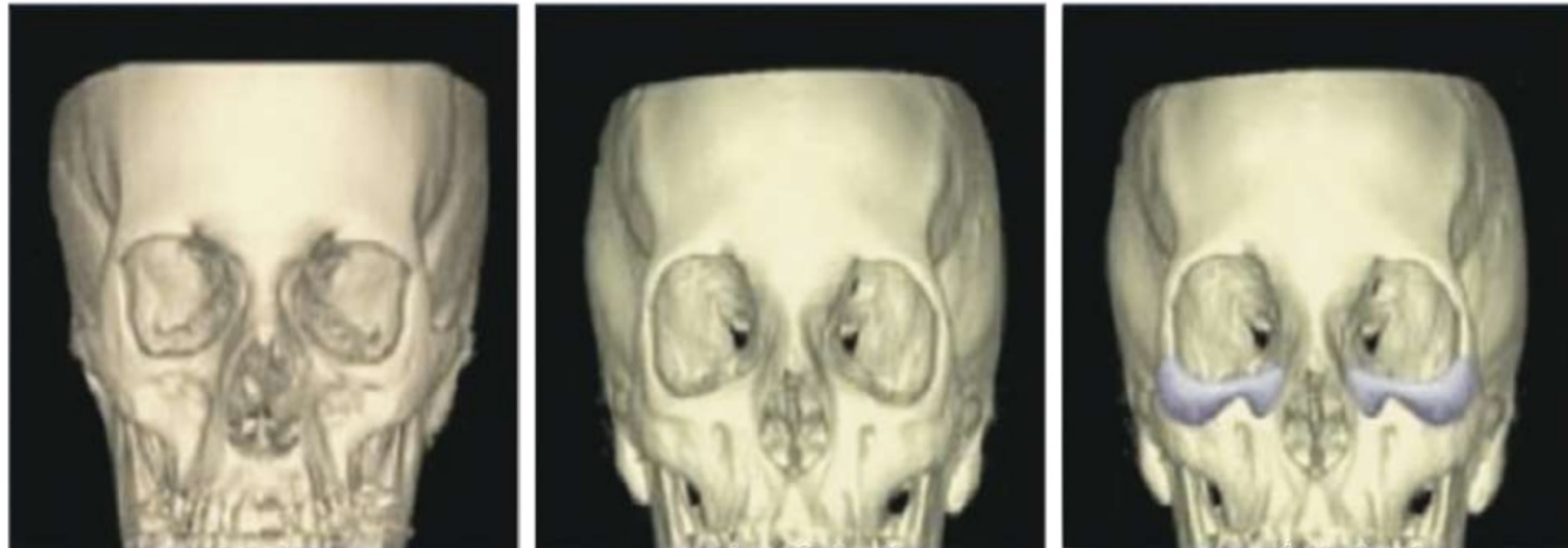


# Bone changes



1. Coleman SR et al. *Aesthet Surg J* 2006;26(15):S4–9.

# Bone changes



1. Coleman SR et al. *Aesthet Surg J* 2006;26(1S):S4–9.

# The facial muscles are concealed by subcutaneous fullness in youth<sup>1</sup>



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During **ageing**, significant loss of subcutaneous volume accentuates the underlying bone and muscle structures<sup>1</sup>

1. Coleman SR et al. *Aesthet Surg J* 2006;26(1S):S4–9.