

## BRING BEAUTY BACK TO THE **SURFACE**

EXPERIENCE EFFECTIVE SKIN BIOSTIMULATION WITH THE VERSATILE FILLER



## THE ICEBERG OF SKIN AGING

The first love, graduation ball, or minor and major heartbreak – it feels like it was only yesterday. Today, we and others place great demands on ourselves and our lives, while efforts and experiences leave their marks. Early signs of skin aging often pass unnoticed.

Skin aging is like an iceberg, with wrinkles and lines being the most obvious signs of fundamental changes happening below the skin's surface.

# OUR BEAUTY IS DETERMINED

## BY WHAT IS HAPPENING BELOW THE SURFACE

In young skin, interaction with the dense collagen network activates dermal fibroblasts to permanently renew the primary components of the skin's structural scaffolding, keeping it firm and elastic.<sup>1-4</sup>

With time, this "power button" fails. Gradual loss of collagen due to intrinsic and extrinsic aging factors deprives the fibroblasts of mechanical stimulation, switching them to an "off" state. The consequence: The fibroblasts loose their skin-renewing capacity – aging signs appear and intensify.<sup>1-4</sup>

### AGING STARTS BELOW THE SKIN'S SURFACE – REJUVENATION DOES, TOO



Varani J, et al. Am J Pathol. 2006 Jun;168(6):1861-8. Fisher GJ, et al. Arch Dermatol. 2008 May;144(5):666-72. Fisher GJ, et al. Am J Pathol. 2009 Jan;174(1):101-14. Quan T (ed.). Molecular Mechanisms of Skin Aging and Age-Related Diseases. © CRC Press, 2016.







Aging factors acting on skin, e.g. sun, lifestyle, etc.



Loss of fibroblast activity is a key event in skin aging. Progressive fragmentation of collagen fibers deprives dermal fibroblast of activation cues and downregulates synthesis of the skin's essential components.<sup>1,2</sup>

#### Enhancing structural support of the dermal microenvironment with Radiesse® can reactivate fibroblasts and support regeneration

## RADIESSE® TURNS THE SKIN ON

The unique composition of Radiesse<sup>®</sup> mimics the collagen scaffolding of the skin to reactive dermal fibroblasts. Switching the fibroblasts into an "on" state, Radiesse<sup>®</sup> triggers neocollagenesis and -elastogenesis, promoting skin renewal from within.<sup>3–5</sup>

**NEOCOLLAGENESIS/-ELASTOGENESIS** 

Fibroblast reactivation increases synthesis of skin structure components

#### **CELL PROLIFERATION**

Radiesse<sup>®</sup> promotes cell proliferation and increases skin thickness

<sup>1</sup> Varani J, et al. Am J Pathol. 2006 Jun;168(6):1861-8. <sup>2</sup> Fisher GJ, et al. Arch Dermatol. 2008 May;144(5):666-72. <sup>3</sup> Yutskovskaya Y, et al. J Drugs Dermatol. 2014 Sep;13(9):1047-52. <sup>4</sup> Courderot-Masuyer C, et al. J Cosmet Dermatol. 2016 Sep;15(3):260-8. <sup>5</sup> Yutskovskaya YA, Kogan EA. J Drugs Dermatol. 2017 Jan 1;16(1):68-74

**RADIESSE® MICROSPHERE** 

The starting point in skin activation



#### **FIBROBLAST REACTIVATION** The starting point in skin activation

**SIS** sis

## **CLINICALLY PROVEN: POSITIVE EFFECT ON THE SKIN**

#### Radiesse<sup>®</sup> reactivates dermal fibroblasts

Radiesse<sup>®</sup> restores dermal fibroblast contractile forces<sup>1</sup> as a critical factor in reactivation of aged fibroblasts.



#### Radiesse<sup>®</sup> stimulates collagen and elastin synthesis

Radiesse® effectively stimulates neocollagenesis and -elastogenesis,<sup>2,3</sup> creating a denser network of structural proteins.



#### Radiesse<sup>®</sup> increases skin thickness and elasticity

and elasticity.<sup>3,4</sup>



#### Radiesse® provides immediate aesthetic improvement with long-term effects

With only one treatment, Radiesse® can provide both instant volume correction and long-term skin quality improvement and rejuvenation.<sup>5-7</sup>





Before

<sup>4</sup> Silvers SL, et al. Plast Reconstr Surg. 2006 Sep;118(3 Suppl):34S-45S.

<sup>5</sup> Funt D, Pavicic T. Plast Surg Nurs. 2015 Jan-Mar;35(1):13-32.
<sup>6</sup> Eviatar J, et al. Plast Reconstr Surg. 2015 Nov;136(5 Suppl):164S-170S.
<sup>7</sup> Pavicic T. Clin Cosmet Investig Dermatol. 2015 Feb 9;8:19-25.

 $^{\circ}$  Changes in dermal thickness of skin treated with diluted Radiesse<sup>®</sup> as demonstrated by ultrasound scans. Data given as mean ± standard deviation; \* p < 0.01, \*\*\* p < 0.0001 vs. baseline of skin treated

<sup>d</sup> Cutometry results showing changes in elasticity (elastic ratio) of skin treated with diluted Radiesse<sup>®</sup>. Data given as mean ± stand-ard deviation; \* p < 0.05, \*\*\* p < 0.00001 vs. baseline.

 <sup>1</sup> Courderot-Masuyer C, et al. J Cosmet Dermatol. 2016 Sep;15(3):260-8.
<sup>2</sup> Yutskovskaya Y, et al. J Drugs Dermatol. 2014 Sep;13(9):1047-52.
<sup>3</sup> Yutskovskaya YA, Kogan EA. J Drugs Dermatol. 2017 Jan 1;16(1):68-74.
<sup>a</sup> Contractile forces developed by human aged dermal fibroblasts in a GlaSbox® device incubated with or without diluted Radiesse®. Data are given as mean ± standard deviation; \*\*\* p < 0.0001 vs. untreated aged (winkle) fibroblasts.</li> <sup>b</sup> Changes in expression levels of collagen type I, collagen type III, and elastin as indicated by staining intensities of biopsies of skin treated with diluted Radiesse<sup>®</sup>. Data are given as mean ± standard deviation; \* p < 0.05, \*\*\* p < 0.00001 vs. baseline.







After

### MERZ AESTHETICS

### A FILLER TAILORED TO PATIENTS' NEEDS

Radiesse<sup>®</sup> is a versatile filler that can be tailored to perfectly meet individual aesthetic demands and needs of your patients.



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Radiesse®