

TECHLOC
EQUIPAMENTOS MÉDICOS

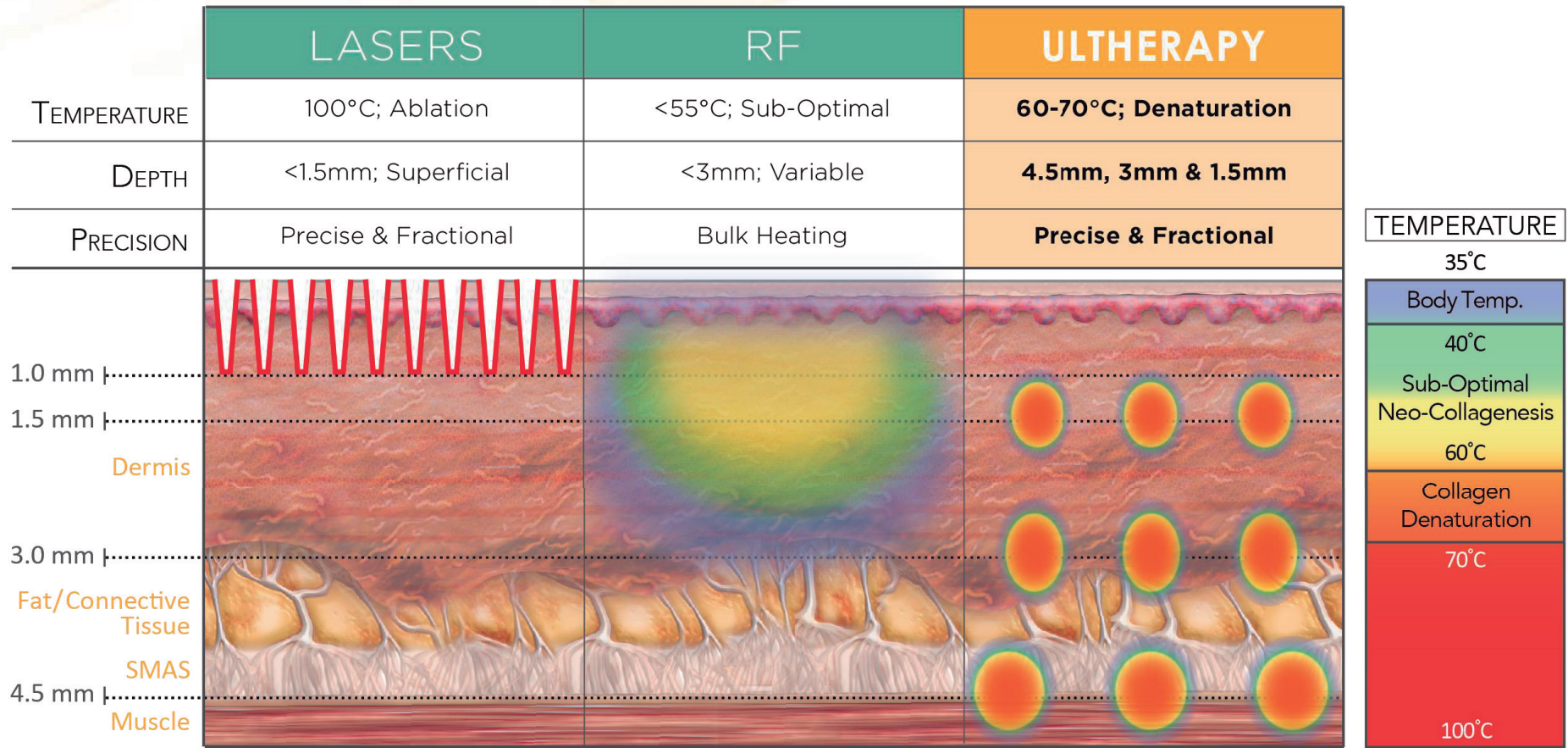
ulthera®



- Ulthera[®]
 - Aprovação do FDA em 2009
 - Aprovação da Anvisa em maio 2012
 - 680.000 tratamentos no mundo
 - Representado pela Medsystems até jan 2016
- Eficácia clínica
 - FDA para lifting de sobrancelha e flacidez de pescoco, face e colo
- Estudos científicos para novas áreas de aplicações.

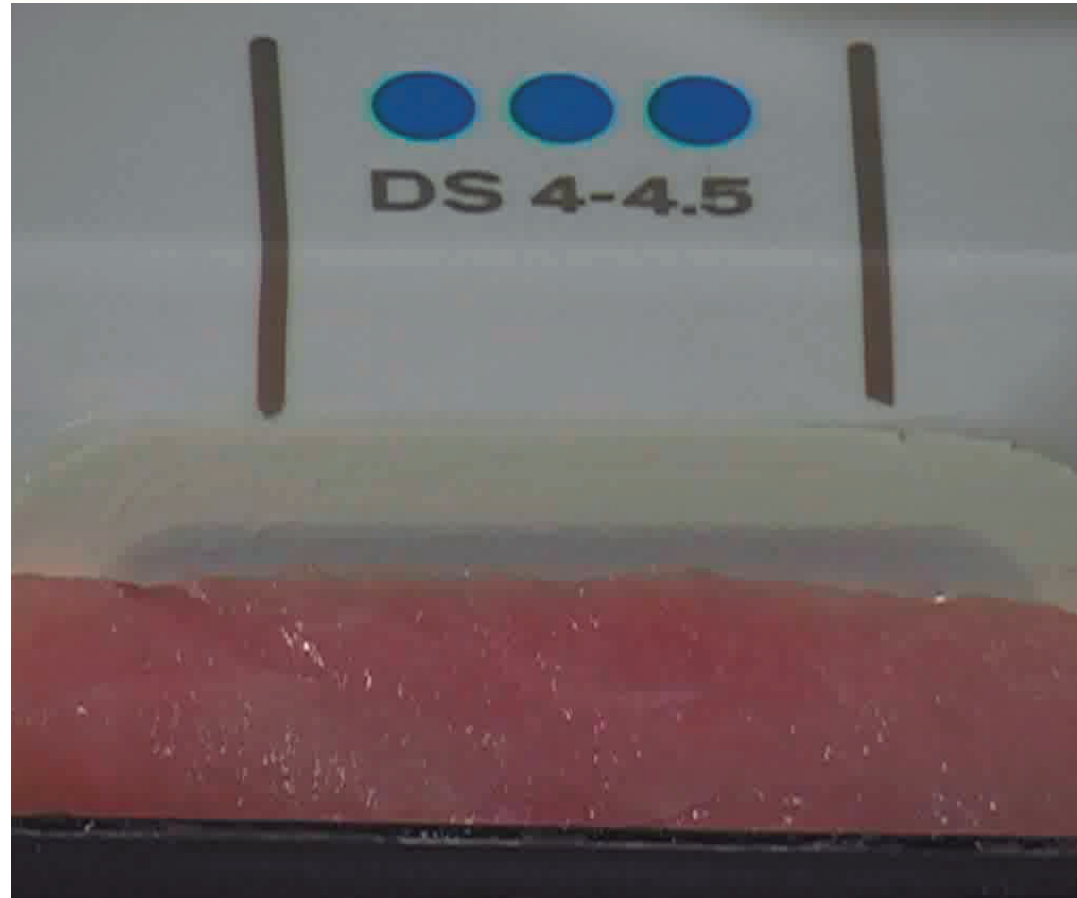
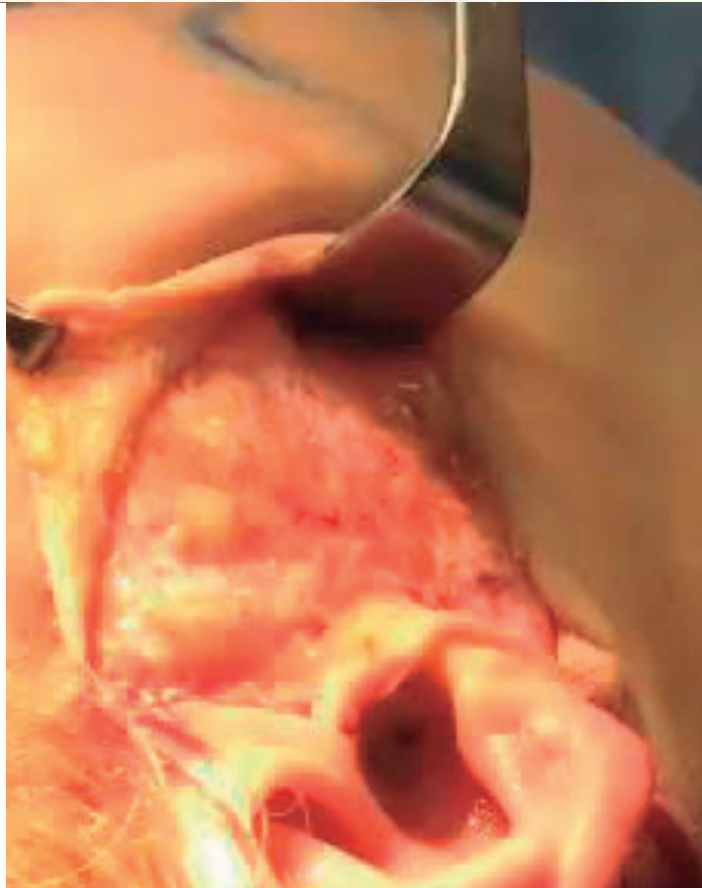
ULTHERA- DIFERENCIAL DAS OUTRAS TECNOLOGIAS

Ultherapy®
SEE THE BEAUTY OF SOUND



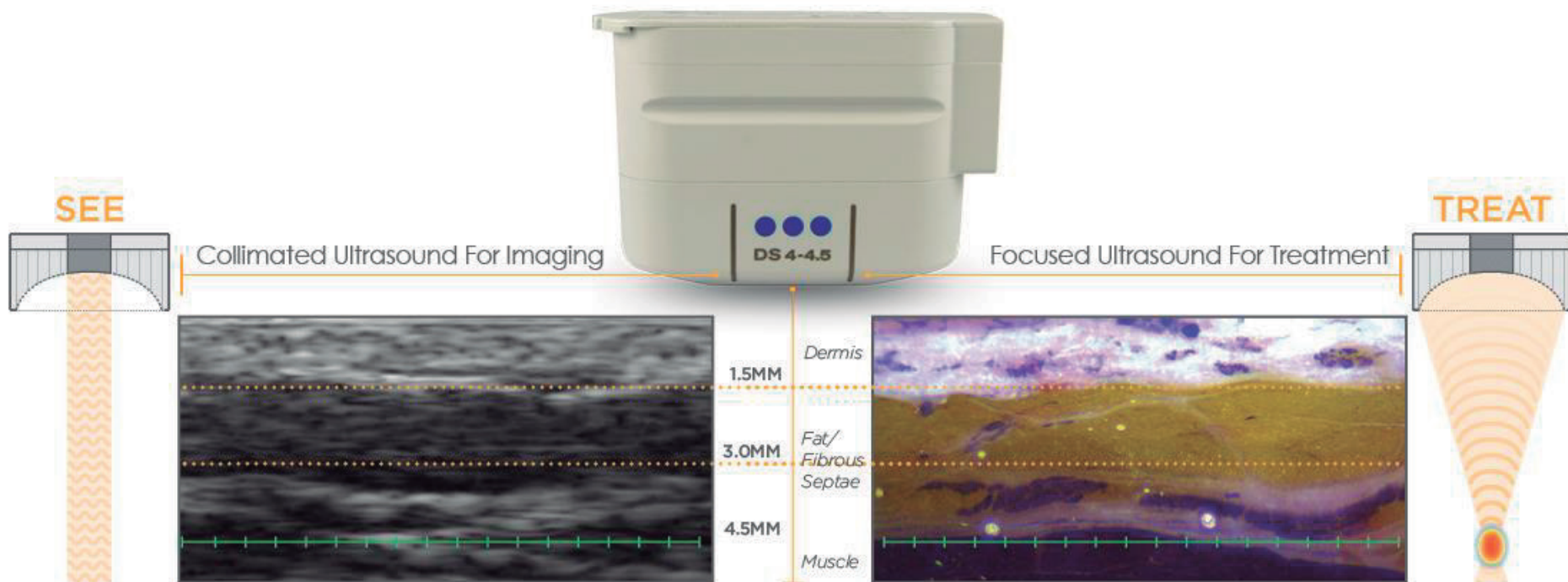
PONTOS DE COAGULAÇÃO

Ultherapy[®]
SEE THE BEAUTY OF SOUND



VISUALIZAÇÃO E TRATAMENTO

Ultherapy®
SEE THE BEAUTY OF SOUND



Ulthera® DeepSEE® image of the lateral neck and histology of the same tissue.

ULTRASSOM PLANO:

Visualização exata de onde será o tratamento

ULTRASSOM FOCADO:

Transdutor gera o Ultrassom Micro focado para entrega de energia na profundidade

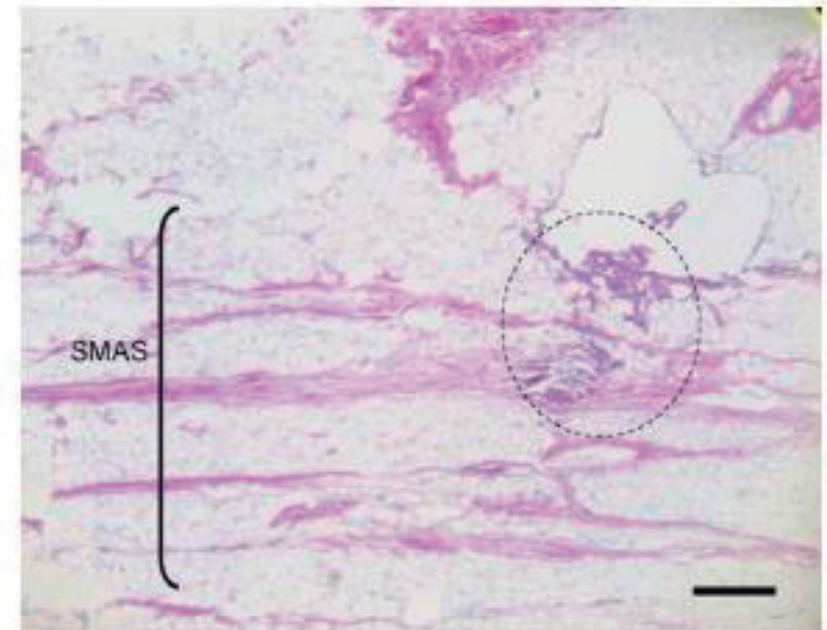
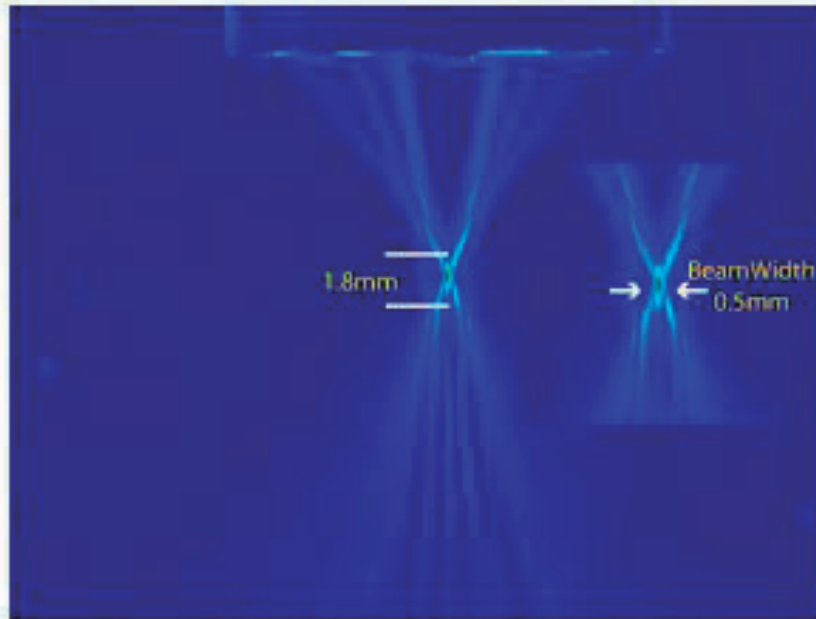
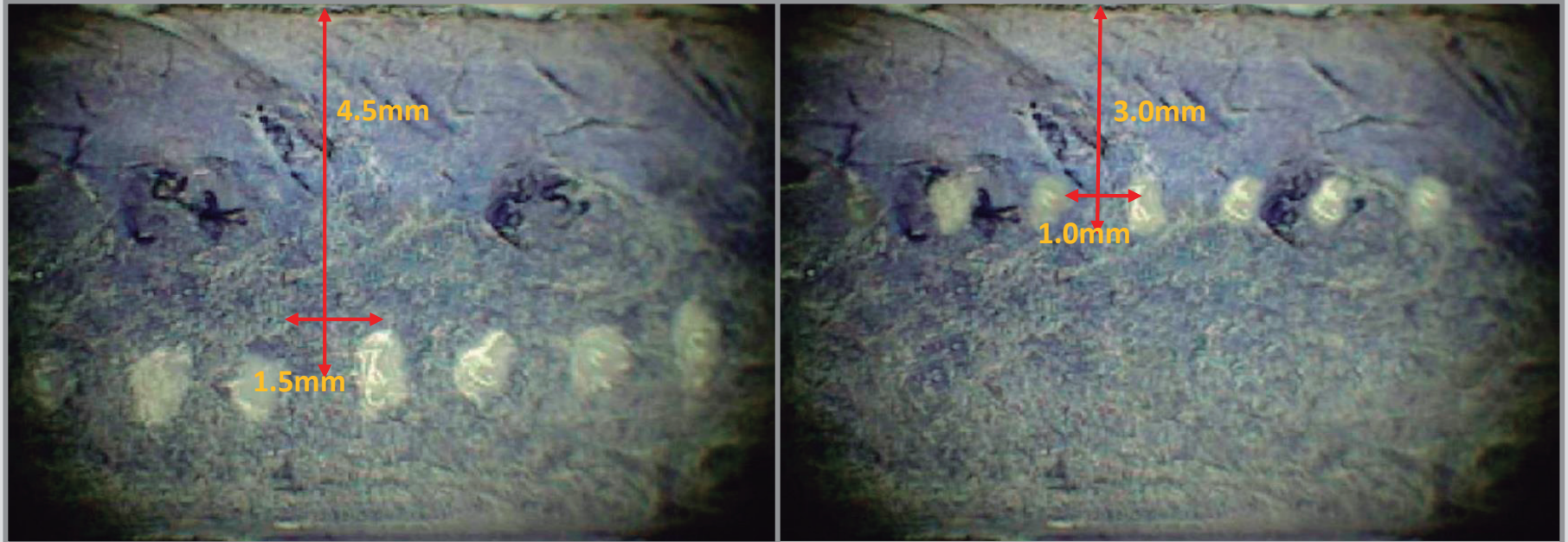


Fig. 2. SMAS treatment targeting. Hematoxylin-eosin staining of preauricular tissue after treatment with intense focused ultrasound. Thermal coagulation point (TCP) identified by the (dotted circle). (From White WM, Makin IR, Barthe PG, et al. Selective creation of thermal injury zones in the superficial musculoaponeurotic system using intense ultrasound therapy: a new target for noninvasive facial rejuvenation. Arch Facial Plast Surg 2007;9:25; with permission.)

PRECISÃO NA PROFUNDIDADE

Ultherapy[®]
SEE THE BEAUTY OF SOUND

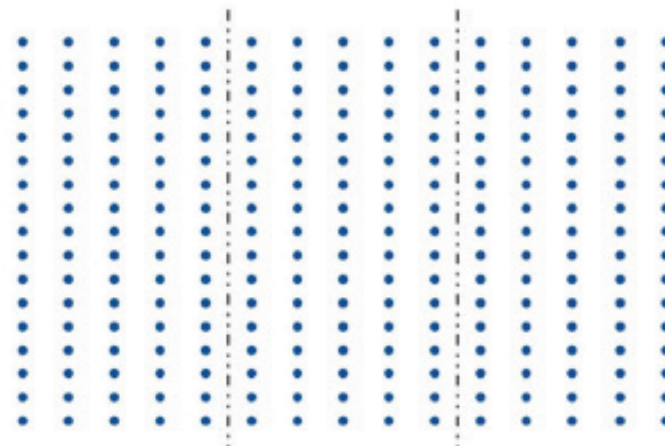


Gross pathology of energy deposited in porcine skin tissue (R.E Gliklich et al, 2007)

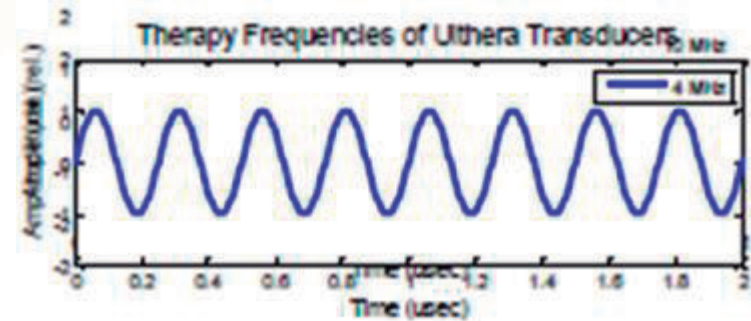
- DS X-Y
 - X: frequência (MHz)
 - Y: profundidade do tratamento
- DS 4-4,5
- DS 7-3,0
- DS 7-3,0 N- BABY
- DS 10-1,5
- DS 10-1,5N- BABY



- CADA TRANSDUTOR, independente do modelo:
 - 2400 disparos
- 4-4,5:
 - 17 TCPs por disparo
- 7-3,0:
 - 23 TCPs por disparo
- 10-1,5:
 - 23 TCPs por disparo
- 7-3,0N e 10-1,5N:
 - 10 TCPs por disparo

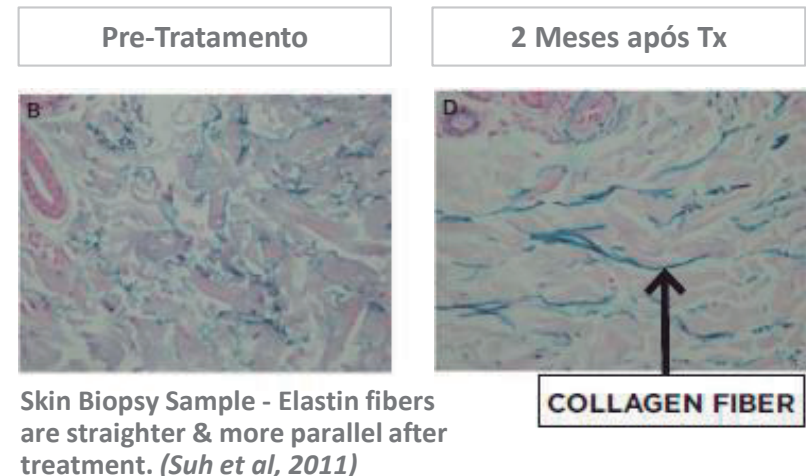
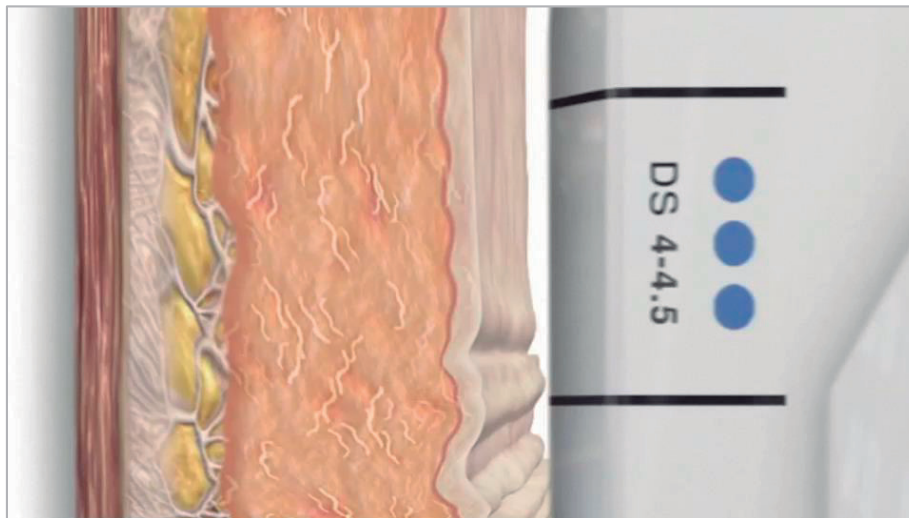
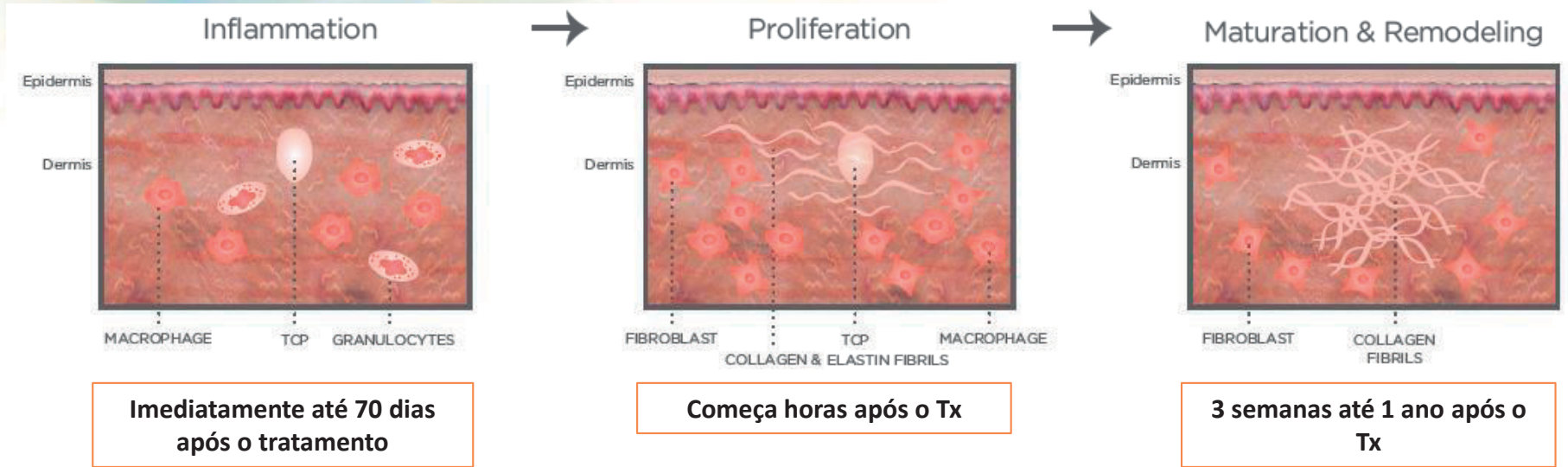


- DS 4-4,5
 - Platisma e SMAS
 - Região Tratamento:
 - » Pescoço e Terço Médio
 - » Visualização US
- DS 7-3,0
 - Face completa
 - Derme Profunda
- DS 10-1,5
 - Derme Superficial
 - Perioral e Periorbital



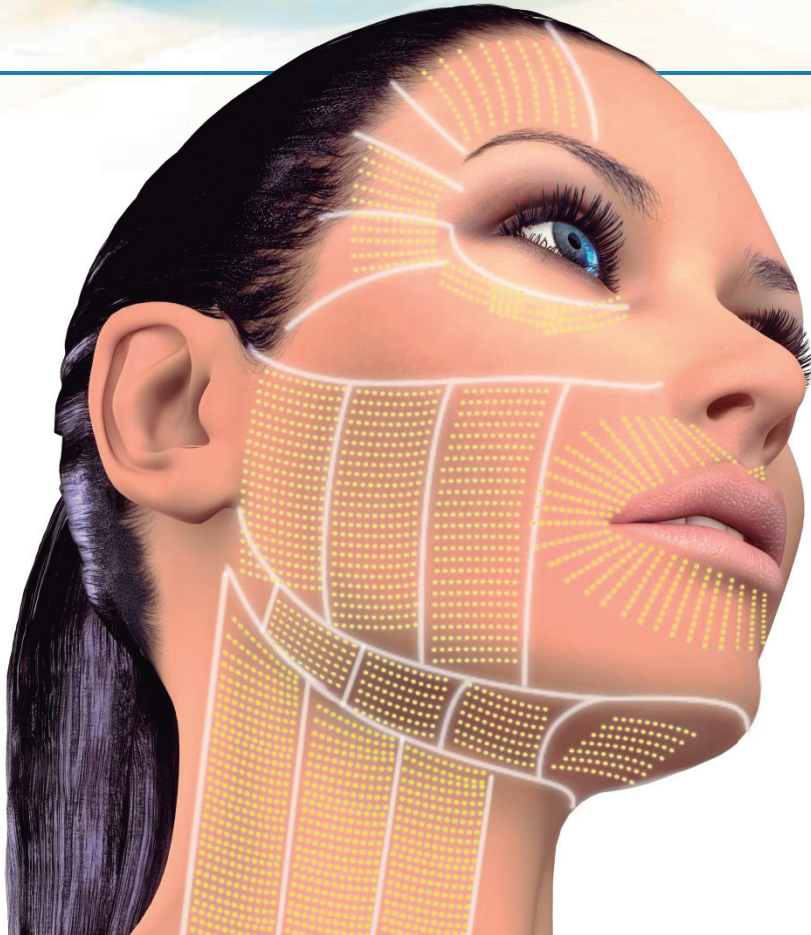
RESULTADOS AO LONGO DO TEMPO

Ultherapy®
SEE THE BEAUTY OF SOUND



ZONAS DE TRATAMENTO

Ultherapy[®]
SEE THE BEAUTY OF SOUND



Aproximadamente 15,000 pontos de coagulação são distribuídos em 3 profundidades causando contração do tecido imediato e início da colagênese.

4. Indications for Use Statement

510(k) Number: K132028
Device Name: Ulthera[®] System

U.S. FDA CLEARED
K072505, K121700, K132028

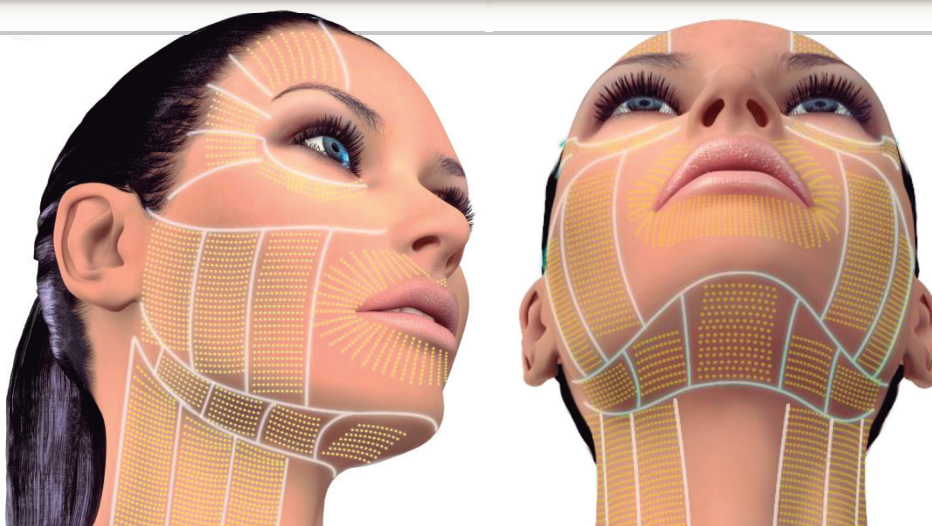
Indications for Use:

The Ulthera System is indicated for use as a non-invasive dermatological aesthetic treatment to:

- lift the eyebrow
- lift lax submental (beneath the chin) and neck tissue

The Ulthera System in conjunction with the Ulthera DeepSEE transducer allows for ultrasonic visualization of depths up to 8 mm below the surface of the skin. The indicated use of the imaging is to visualize the dermal and subdermal layers of tissue to:

- ensure proper coupling of the transducer to the skin
- confirm appropriate depth of treatment such as to avoid bone



LIFTING PESCOÇO (2012)



Antes

180 dias (1Tx)

LIFTING SUBMENTO (2012)



Antes

180 dias (1Tx)

LIFTING SOBRANCELHA (2009)



Antes

70 dias(1Tx)

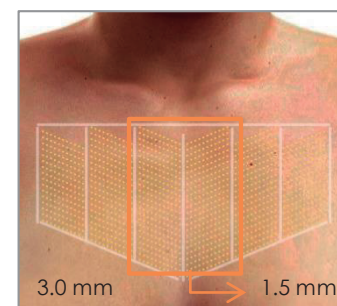
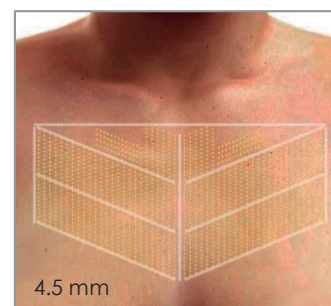
A 4ª aprovação do Ulthera pelo FDA –Junho 20, 2014

Indications for Use:

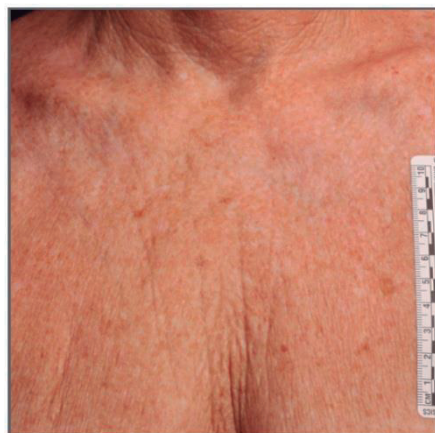
The Ulthera[®] System is indicated for use as a non-invasive dermatological aesthetic treatment to:

- improve lines and wrinkles of the décolleté (requested indication)

U.S. FDA CLEARED
K072505, K121700, K132028, K134032



280 Linhas do tratamento das 3 profundidades



Pre-Treatment



Day 180, Single Treatment



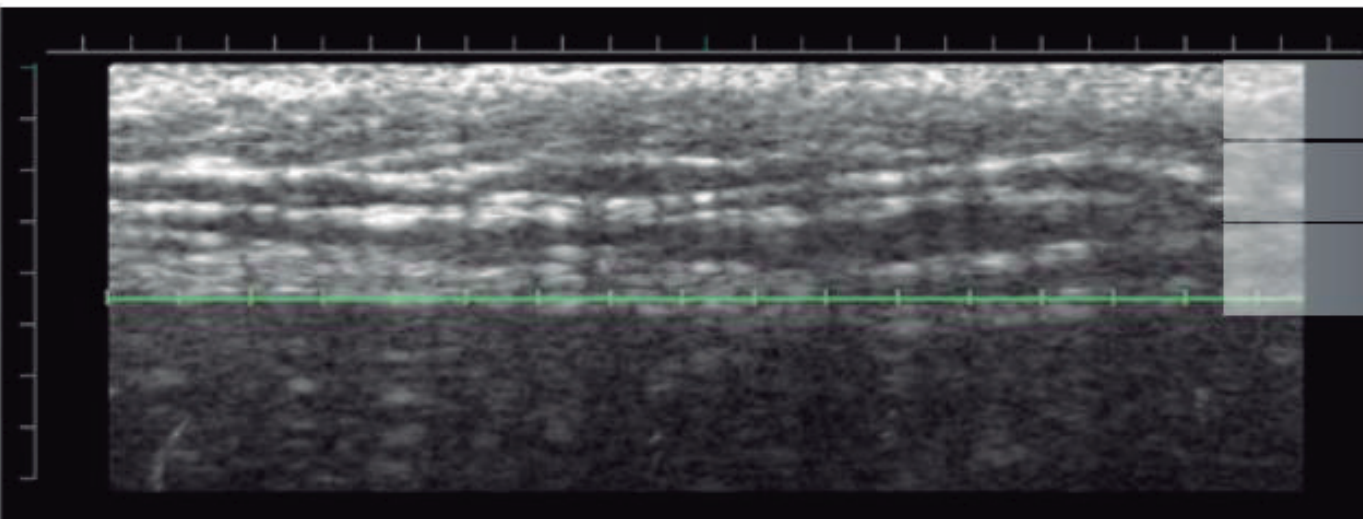
Pre-Treatment



Day 180, Single Treatment

IMPORTÂNCIA DA VISUALIZAÇÃO

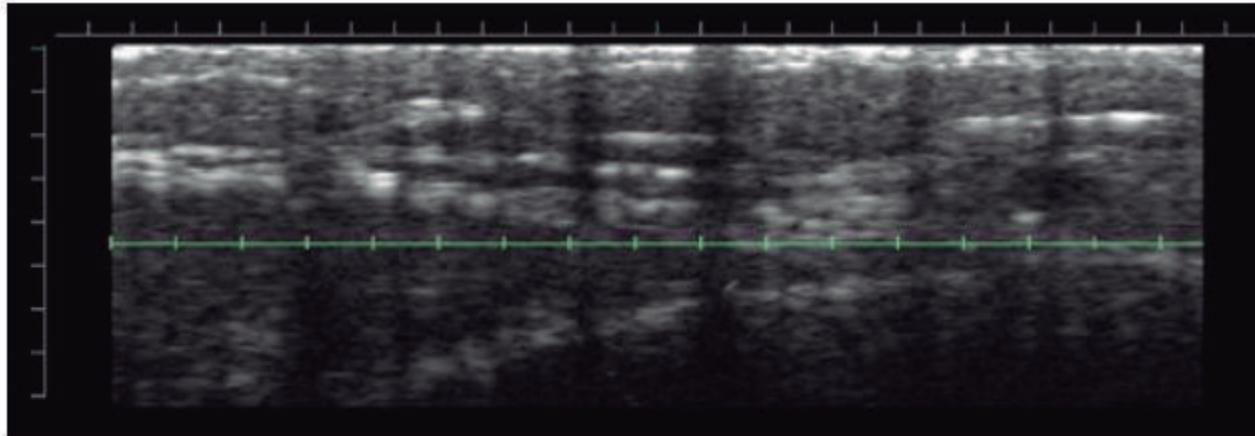
Ultherapy[®]
SEE THE BEAUTY OF SOUND



Dermis

Subcutaneous tissue

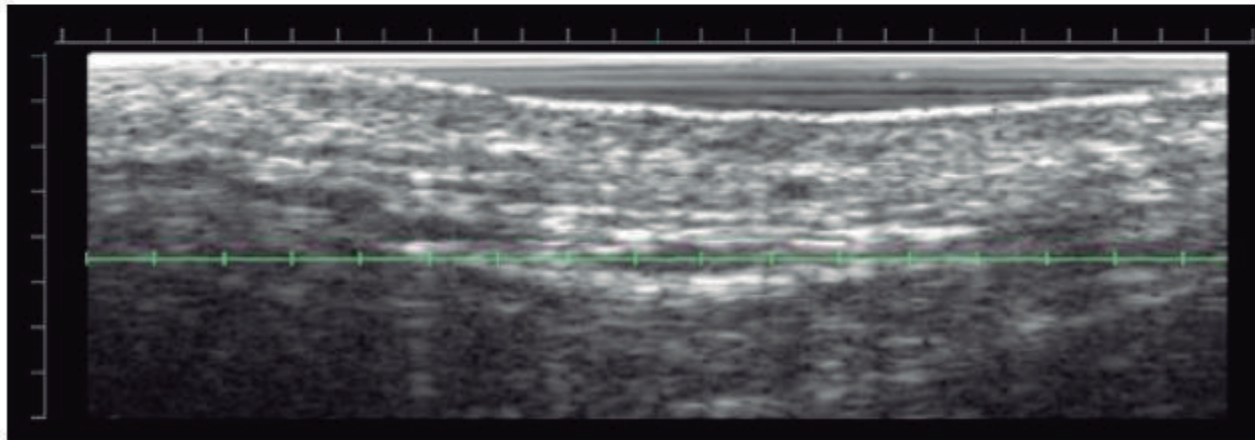
Fibro-muscular layer



POOR COUPLING

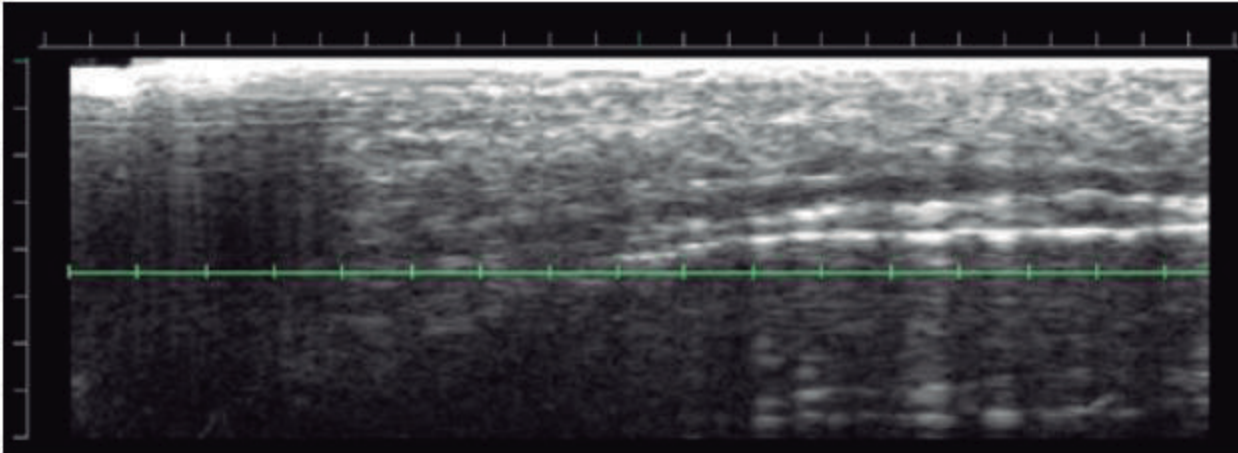
Dark vertical bars visible

Add gel or reposition transducer



TOO MUCH GEL

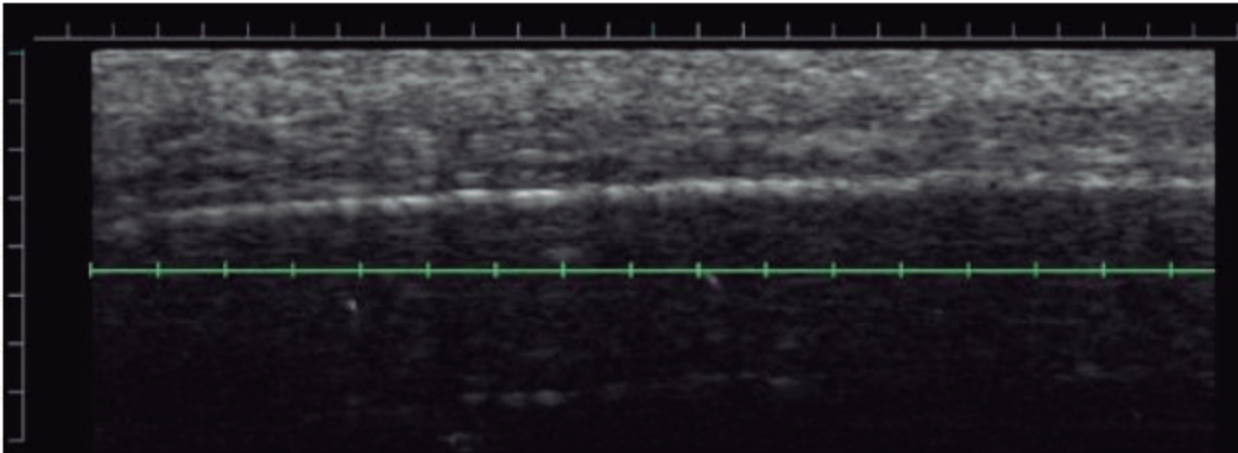
Reposition transducer



POOR CONTACT

Proximal end of the handpiece is being lifted

Reposition transducer



INCORRECT DEPTH

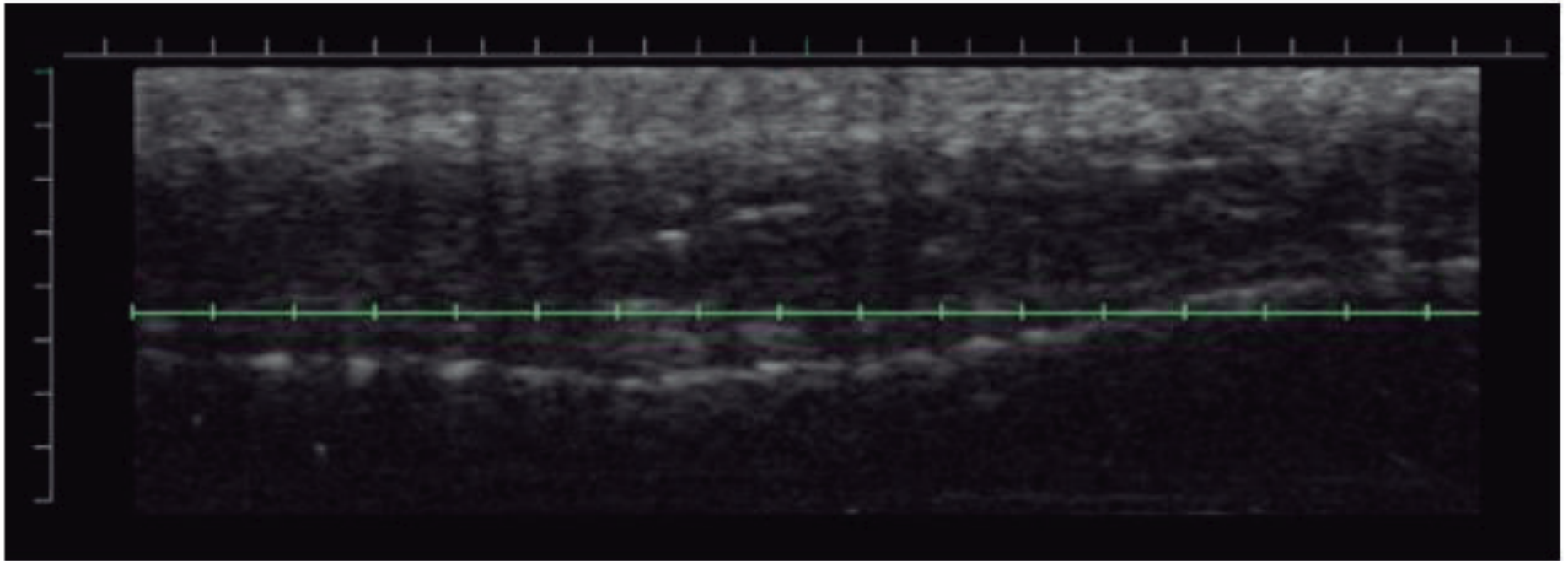
Energy would be delivered directly into bone

Use a more superficial transducer

1001490 A

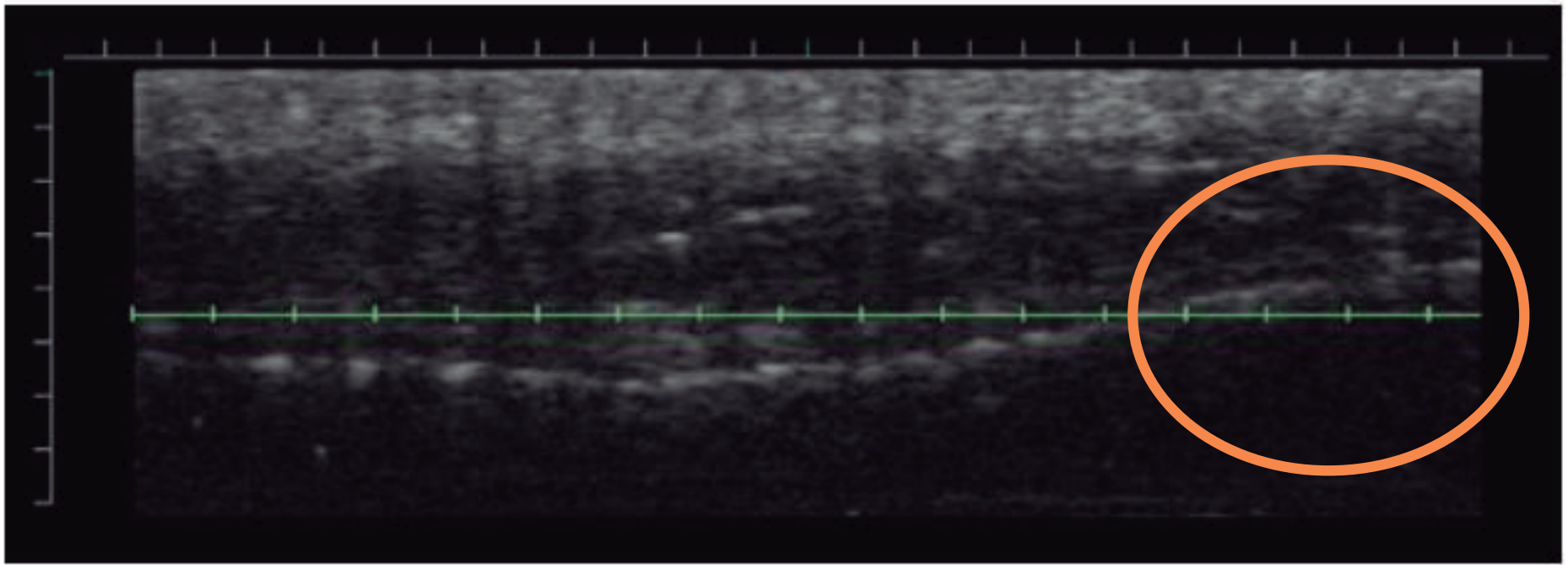
IMPORTÂNCIA DA VISUALIZAÇÃO

Ultherapy[®]
SEE THE BEAUTY OF SOUND



IMPORTÂNCIA DA VISUALIZAÇÃO

Ultherapy[®]
SEE THE BEAUTY OF SOUND

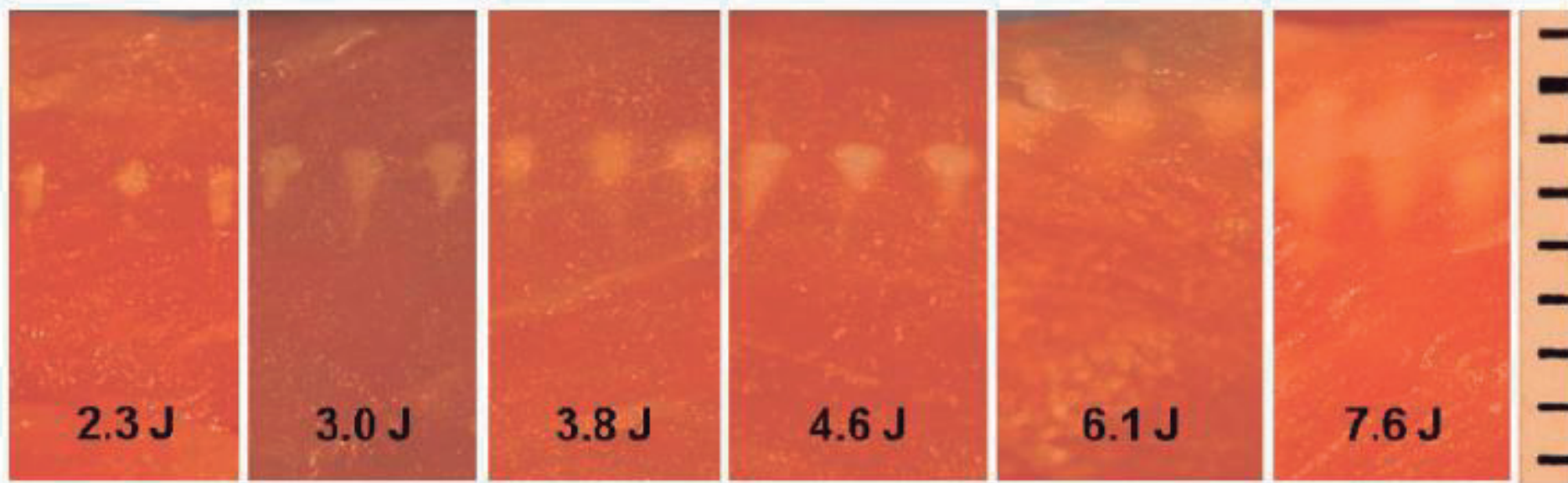


Dor associada ao Ulthera

- Pontos de Coagulação (TCPs)
 - 65° C - dano termal
 - Acúmulo de calor
- Osso e nervos
 - TCPs são entregues próximo ou direto no osso ou nervos

Manejo da dor

- Diminuição da energia
 - menor halo de coagulação
- Mais disparos por coluna

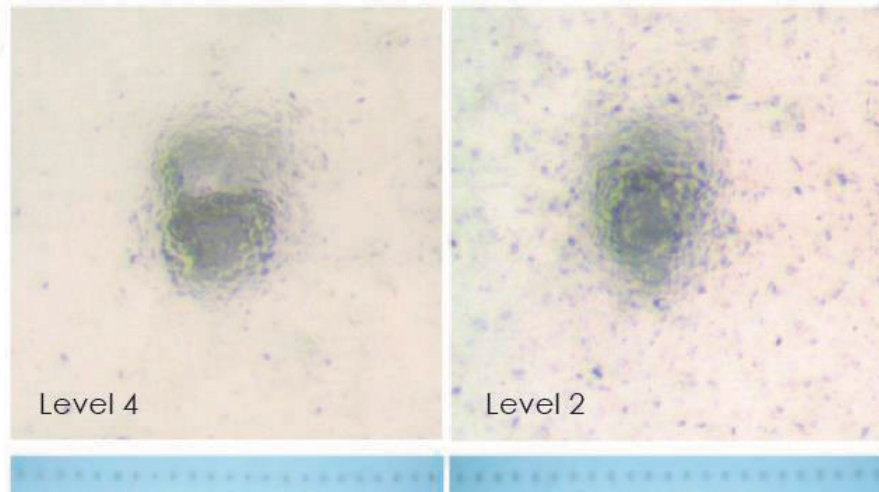


	ENERGY LEVELS [J]			
TRANSDUCER	Level 4	Level 3	Level 2	Level 1
DS 4-4.5	1.20	1.00	0.90	0.75
DS 7-4.5	1.05	0.90	0.75	0.66
DS 7-3.0	0.45	0.35	0.30	0.25
DS 7-3.0N	0.45	0.35	0.30	0.25
DS 10-1.5	0.25	0.20	0.18	0.15
DS 10-1.5N	0.25	0.20	0.18	0.15

Adjusted energy levels increase comfort without compromising efficacy

- *No significant change in TCP size between high and low energy setting*
- *No visible difference in split-face masked assessments*

DS7-3.0 Transducer (22.5x Magnification)



Split-Face Study - 5.0 Plus Treatment at Highest and Lowest Energy Setting



Before



90 Days
(Lowest Energy Level)



Before



90 Days
(Highest Energy Level)

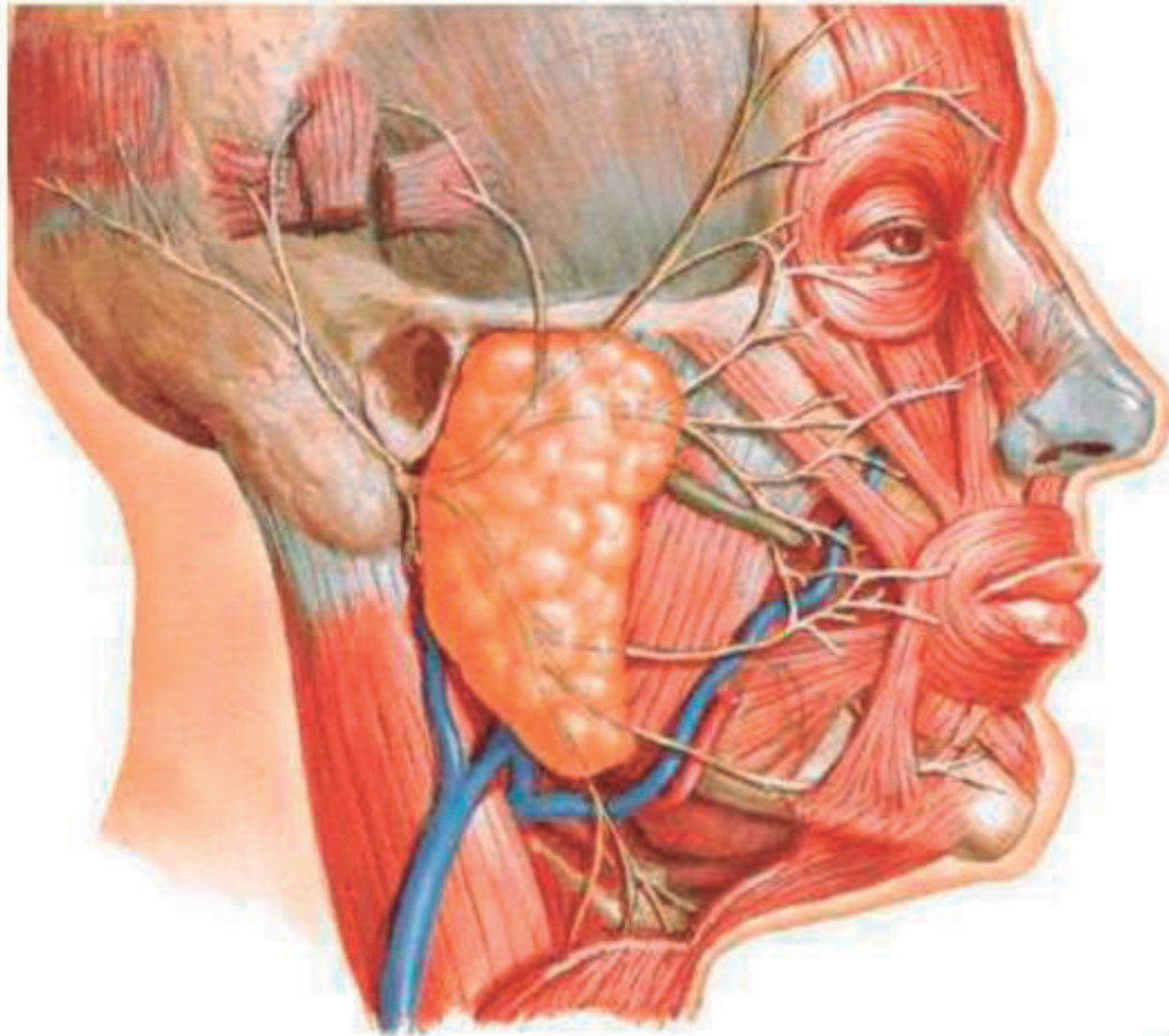
- Comuns
 - Eritema- 2 h após procedimento
 - Edema- ate 48 h após o procedimento
 - Dor ao estímulo- até 2 semanas após o procedimento
- Raros:
 - Hematomas
 - Dor de Cabeça
 - Desvio de Rima



EVENTOS ADVERSOS COMUNS

- Disparo superficializado: muito gel, acoplamento ruim





RESULTADOS

Noninvasive Treatment of the Neck

Robert W. Brobst, MD^{a,*}, Maria Ferguson, BS, ME^b,
Stephen W. Perkins, MD^b



Fig. 10. A 37-year-old woman with submental treatment 13-month result from a single treatment of 180 lines. Lateral images: (A) pre and (B) 13 month result.

Noninvasive Treatment of the Neck

Robert W. Brobst, MD^{a,*}, Maria Ferguson, BS, ME^b,
Stephen W. Perkins, MD^b

Ultherapy®

SEE THE BEAUTY OF SOUND™



Fig. 11. A 50-year-old woman with lower face/neck 6-month and 1.5-year results from a single treatment of 500 lines. Lateral images: (A) pre; (B) 6 months; and (C) 1.5 year result.

Noninvasive Treatment of the Neck

Robert W. Brobst, MD^{a,*}, Maria Ferguson, BS, ME^b,
Stephen W. Perkins, MD^b

Ultherapy[®]

SEE THE BEAUTY OF SOUND[™]



Fig. 12. A 46-year-old woman with lower face/neck 2-year result from a single treatment of 518 lines. Lateral images: (A) pre; (B) 1 year; and (C) 2 year result.

Noninvasive Treatment of the Neck

Robert W. Brobst, MD^{a,*}, Maria Ferguson, BS, ME^b,
Stephen W. Perkins, MD^b



Fig. 13. A 48-year-old woman with lower face/neck 2-year result from a single treatment of 658 lines. Lateral images: (Left to Right) pre, 6-month, and 1-year results.

Microfocused Ultrasound for Skin Tightening

Jennifer L. MacGregor, MD,* and Elizabeth L. Tanzi, MD[†]

SEE THE BEAUTY OF SOUND™



Figure 3 Neck before (A) and 6 months after (B) a single microfocused ultrasound treatment of the cheeks and neck.

Microfocused Ultrasound for Skin Tightening

Jennifer L. MacGregor, MD,* and Elizabeth L. Tanzi, MD†

SEE THE BEAUTY OF SOUND™



Figure 4 Periocular area before (A) and 6 months after (B) a single microfocused ultrasound treatment of the brow.

Retrospective Evaluation of Micro-focused Ultrasound for Lifting and Tightening the Face and Neck

SABRINA G. FABI, MD, AND MITCHEL P. GOLDMAN, MD



Figure 2. Fifty-five-year-old woman status-post one MFU-V treatment to the face and upper neck, 6 months later.

Retrospective Evaluation of Micro-focused Ultrasound for Lifting and Tightening the Face and Neck

SABRINA G. FABI, MD, AND MITCHEL P. GOLDMAN, MD

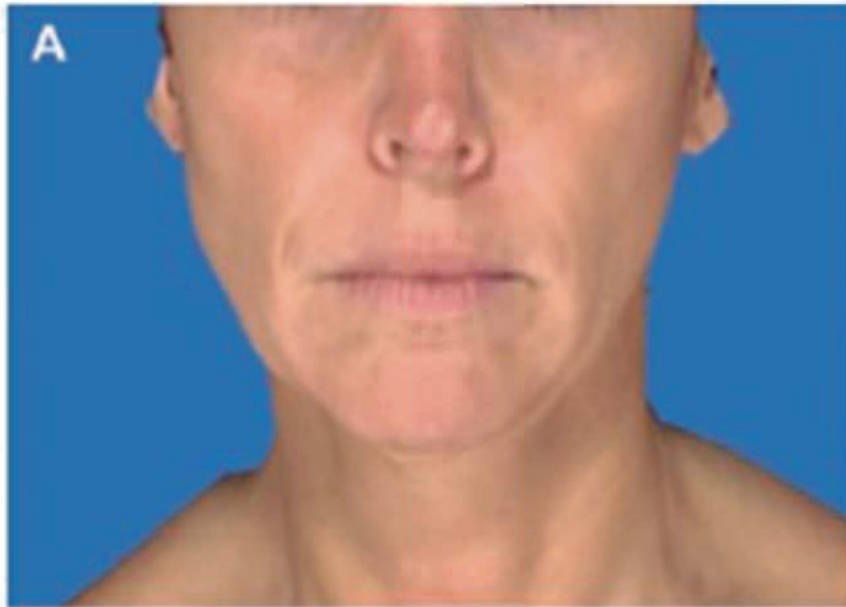


Figure 3. Sixty-nine-year-old woman status-post one MFU-V treatment, 6 months later.

Evaluation of a Microfocused Ultrasound System for Improving Skin Laxity and Tightening in the Lower Face

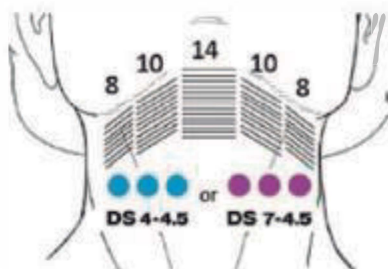
Aesthetic Surgery Journal
1-12
© 2014 The American Society for
Aesthetic Plastic Surgery, Inc.
Reprints and permission:
[http://www.sagepub.com/
journalsPermissions.nav](http://www.sagepub.com/journalsPermissions.nav)
DOI:10.1177/1090820X14541956
www.aestheticsurgeryjournal.com
SAGE

Georgette Oni, MD, PhD; Ron Hoxworth, MD; Sumeet Teotia, MD;
Spencer Brown, PhD; and Jeffrey M. Kenkel, MD

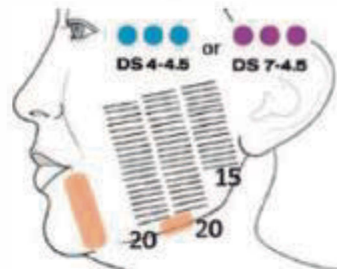


Facial nerve locations – Do not treat

1 Neck 4.5 50* lines



2 Cheek 4.5 55* lines
• Start at lower edge of cheekbone



Evaluation of a Microfocused Ultrasound System for Improving Skin Laxity and Tightening in the Lower Face

Georgette Oni, MD, PhD; Ron Hoxworth, MD; Sumeet Teotia, MD; Spencer Brown, PhD; and Jeffrey M. Kenkel, MD

Aesthetic Surgery Journal
1-12
© 2014 The American Society for
Aesthetic Plastic Surgery, Inc.
Reprints and permission:
[http://www.sagepub.com/
journalsPermissions.nav](http://www.sagepub.com/journalsPermissions.nav)
DOI: 10.1177/1090820X14541956
www.aestheticsurgeryjournal.com
SAGE



20-30 anos



Pre-Treatment



120 Days Post Treatment 1

30-40 anos



Pre-Treatment



14 Days Post Treatment 1

30-40 anos



Pre-Treatment



90 Days Post Treatment 1

40-50 anos



Pre-Treatment



360 Days Post Treatment 1

40-50 anos



Pre-Treatment



90 Days Post Treatment 1

40-50 anos



Pre-Treatment



120 Days Post Treatment 1

Acima de 50 anos



Pre-Treatment



90 Days Post Treatment 1

Acima de 50 anos



Pre-Treatment



90 Days Post Treatment 1

Acima de 50 anos



Pre-Treatment



180 Days Post Treatment 1

Pós Facelift



Pre-Treatment
(6 Months Post Face Lift)



90 Days Post Treatment 1

Neck Lift



Pre-Treatment



90 Days Post Treatment 1

Upper & Lower Neck Treatment

Neck Lift



Pre-Treatment



180 Days Post Treatment 1

Upper & Lower Neck Treatment

Browlift



Pre-Treatment



70 Days Post Treatment 1

Browlift



Pre-Treatment



90 Days Post Treatment 1, Single Plane

Colo



Pre-Treatment



180 Days Post-Treatment

Courtesy of Steven Dayan, MD

Courtesy of Steven Dayan, M.D.

Colo



Pre-Treatment



180 Days Post-Treatment

Colo



Pre-Treatment

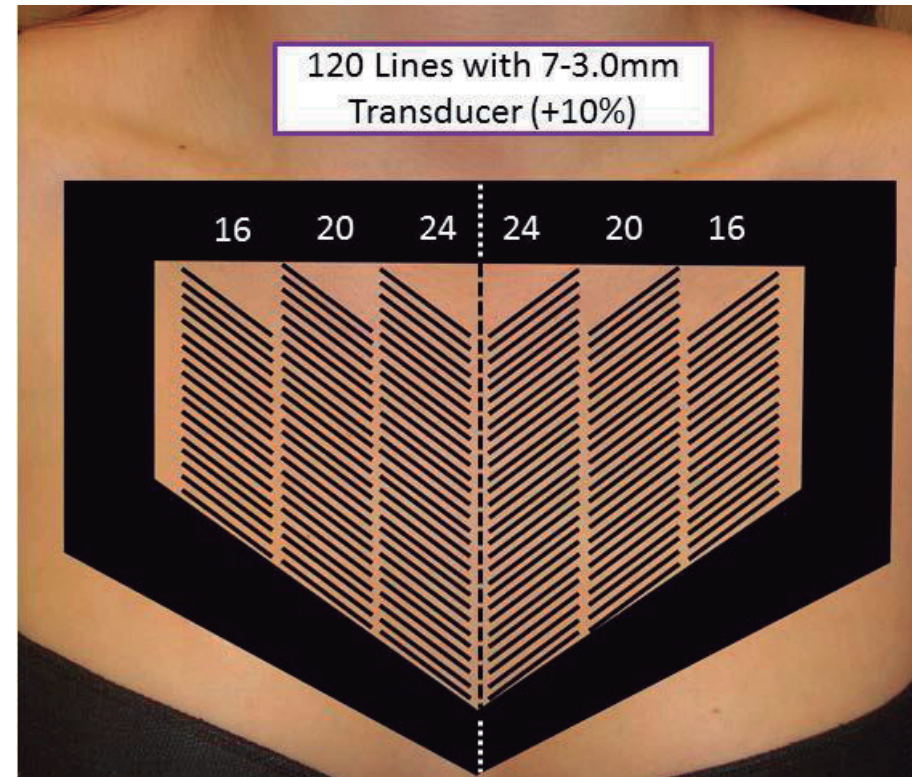
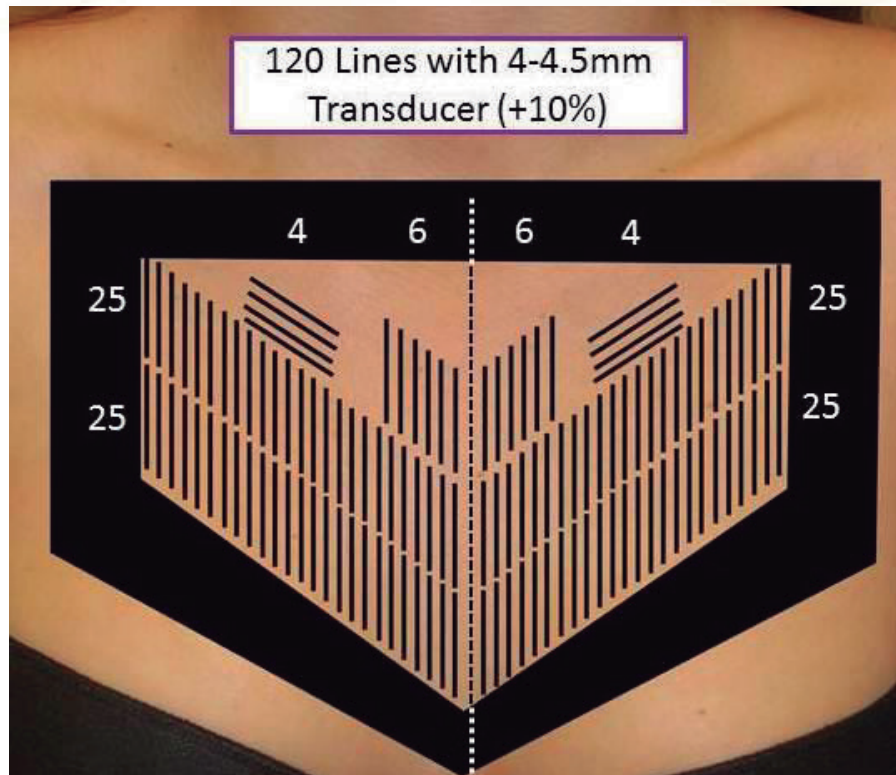


180 Days Post-Treatment

Courtesy of Steven Dayan, MD

Courtesy of Steven Dayan, M.D.

Chest Treatment Guideline



COAGULAÇÃO- denaturação fibra colágeno e síntese de novas fibras

Ultherapy[®]
SEE THE BEAUTY OF SOUND

TEMPERATURE

35°C

Body Temp.

40°C

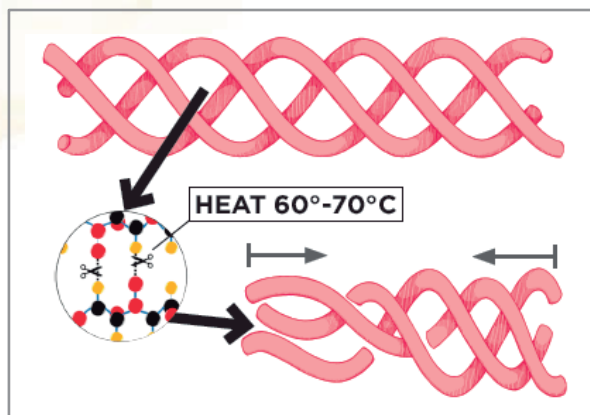
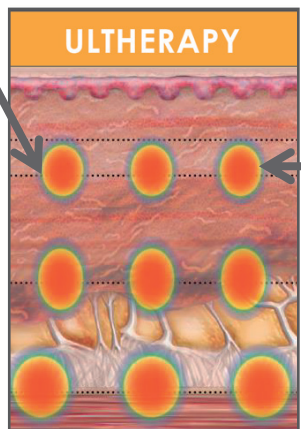
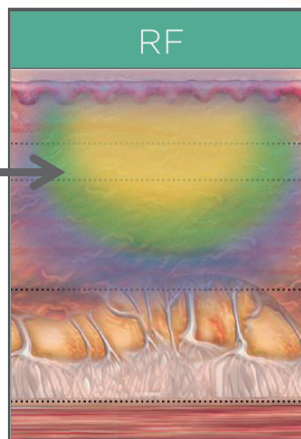
Sub-Optimal
Neo-Collagenesis

60°C

Collagen
Denaturation

70°C

100°C



Clara solidifica a 63°C
(denaturação da proteína)

Ulthera atinge o tecido ~65°C, denaturando fibras e causando contração da estrutura do colágeno.

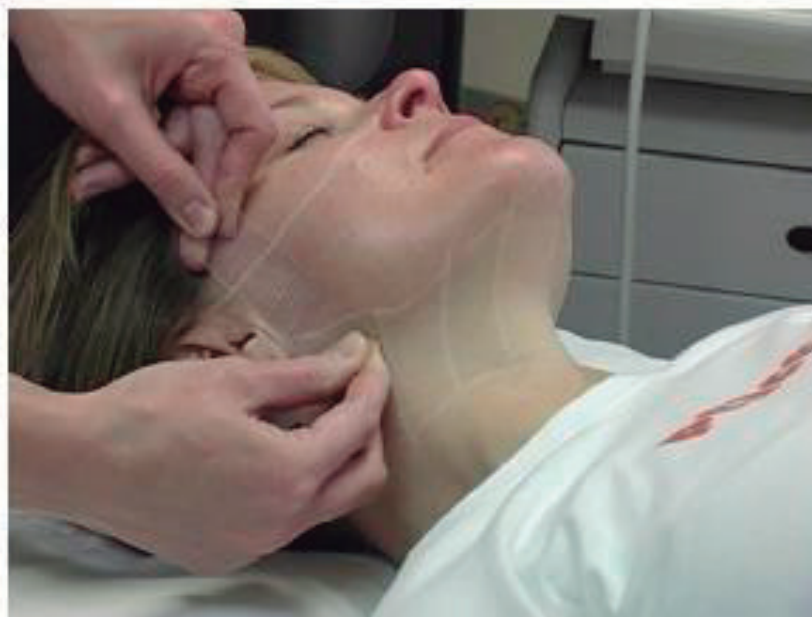


(White et al, 2007)

- 5.0 PLUS
- Somando todos os disparos das 3 profundidades:
 - 500 disparos
- 800
- Somando todos os disparos das 3 profundidades:
 - 800 disparos

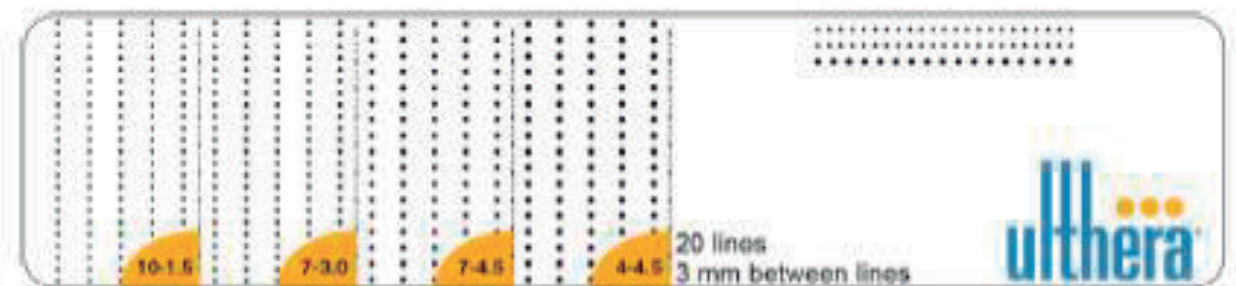


Ultherapy[®]
SEE THE BEAUTY OF SOUND



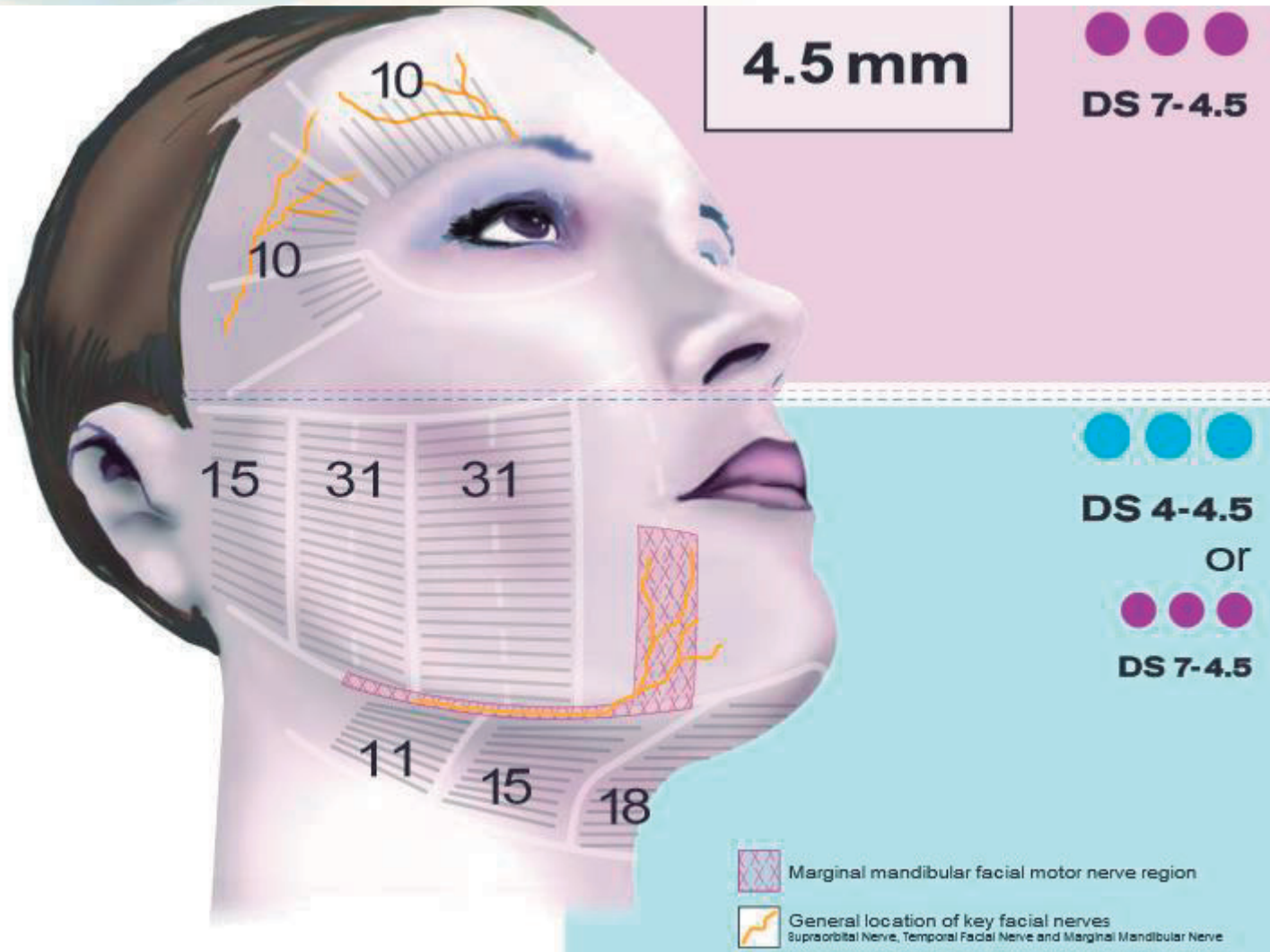
MARCAÇÃO

Ultherapy[®]
SEE THE BEAUTY OF SOUND



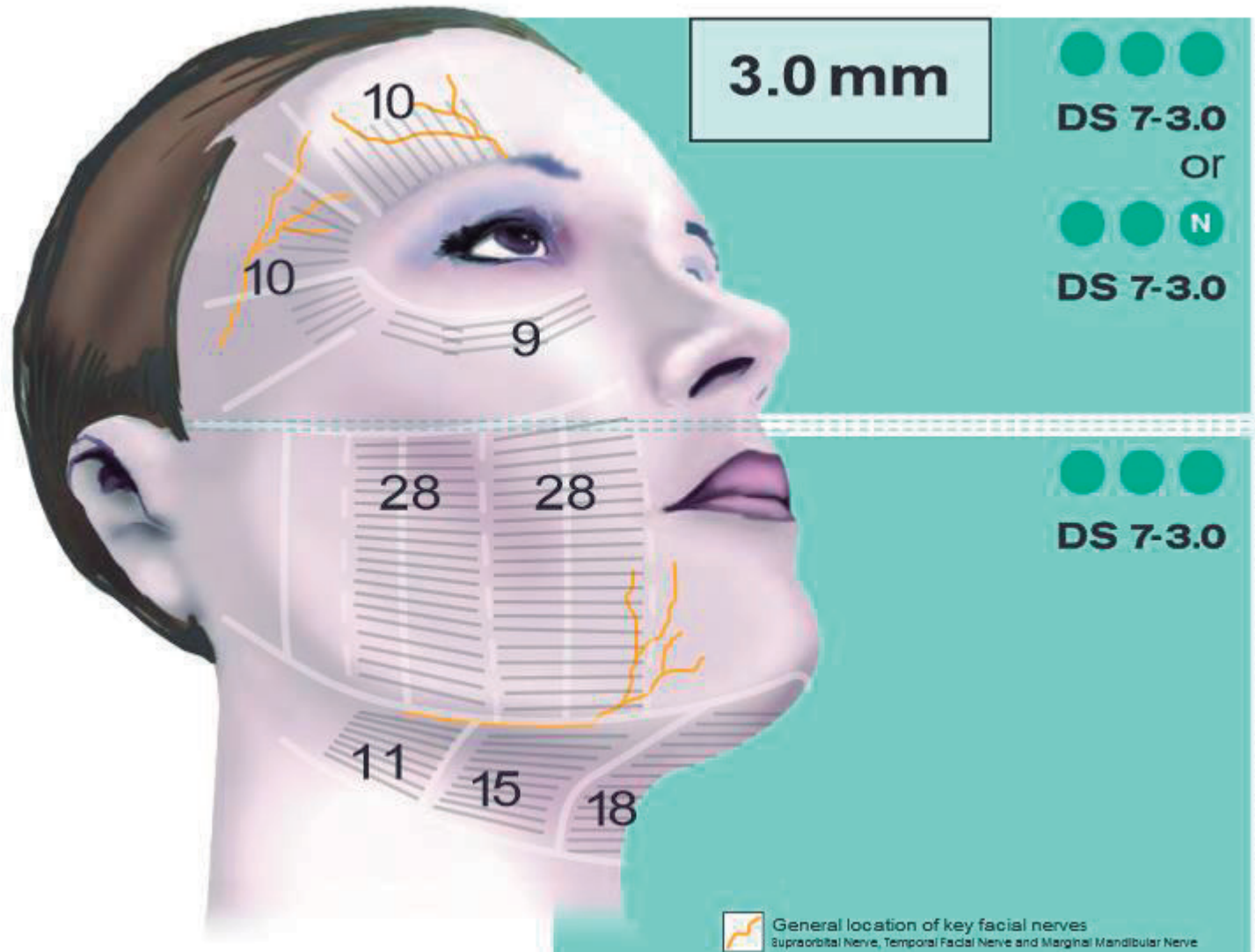
500 linhas- 4,5mm

Ultherapy[®]
SEE THE BEAUTY OF SOUND



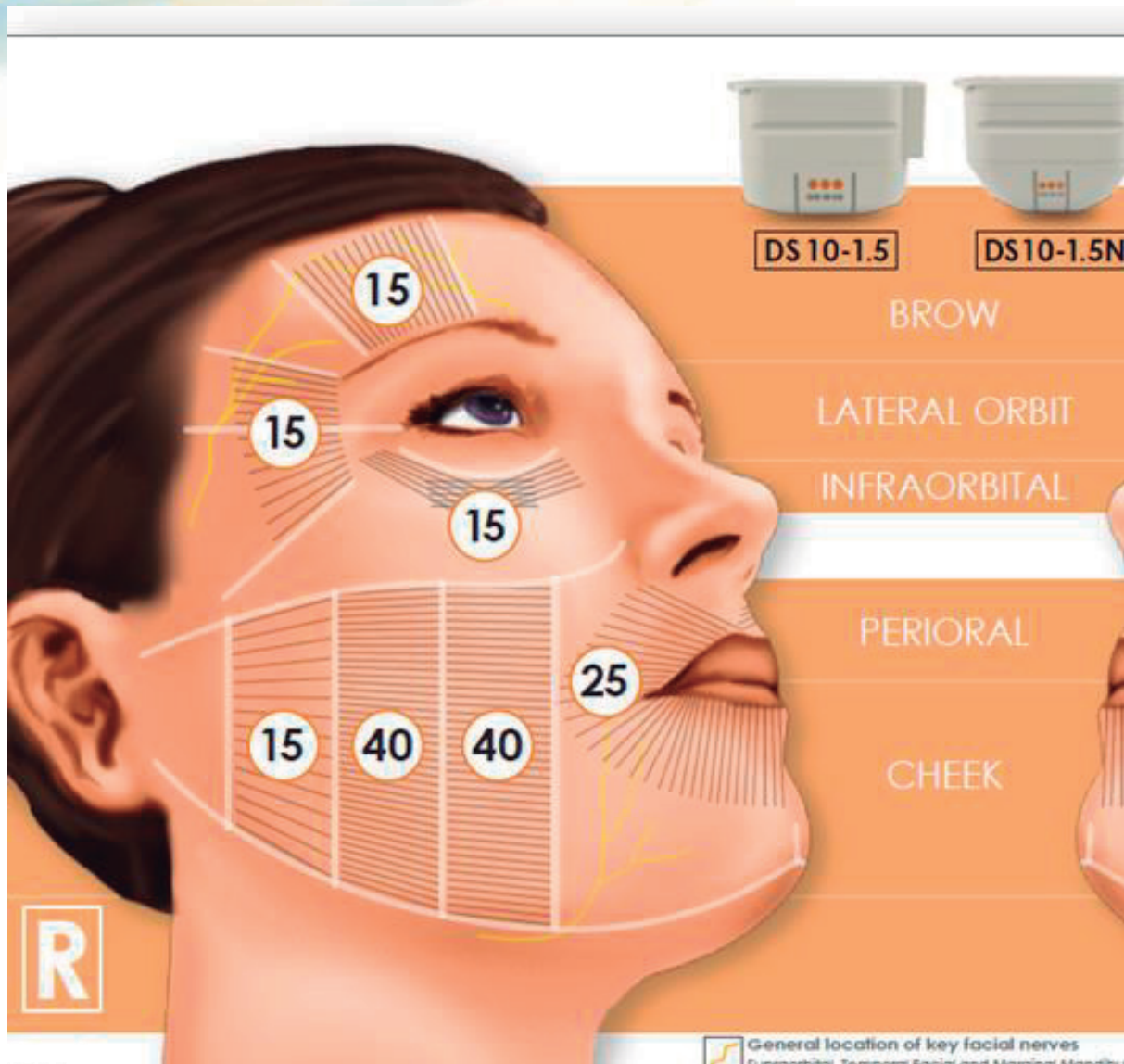
500 linhas- 3,0mm

Ultherapy[®]
SEE THE BEAUTY OF SOUND



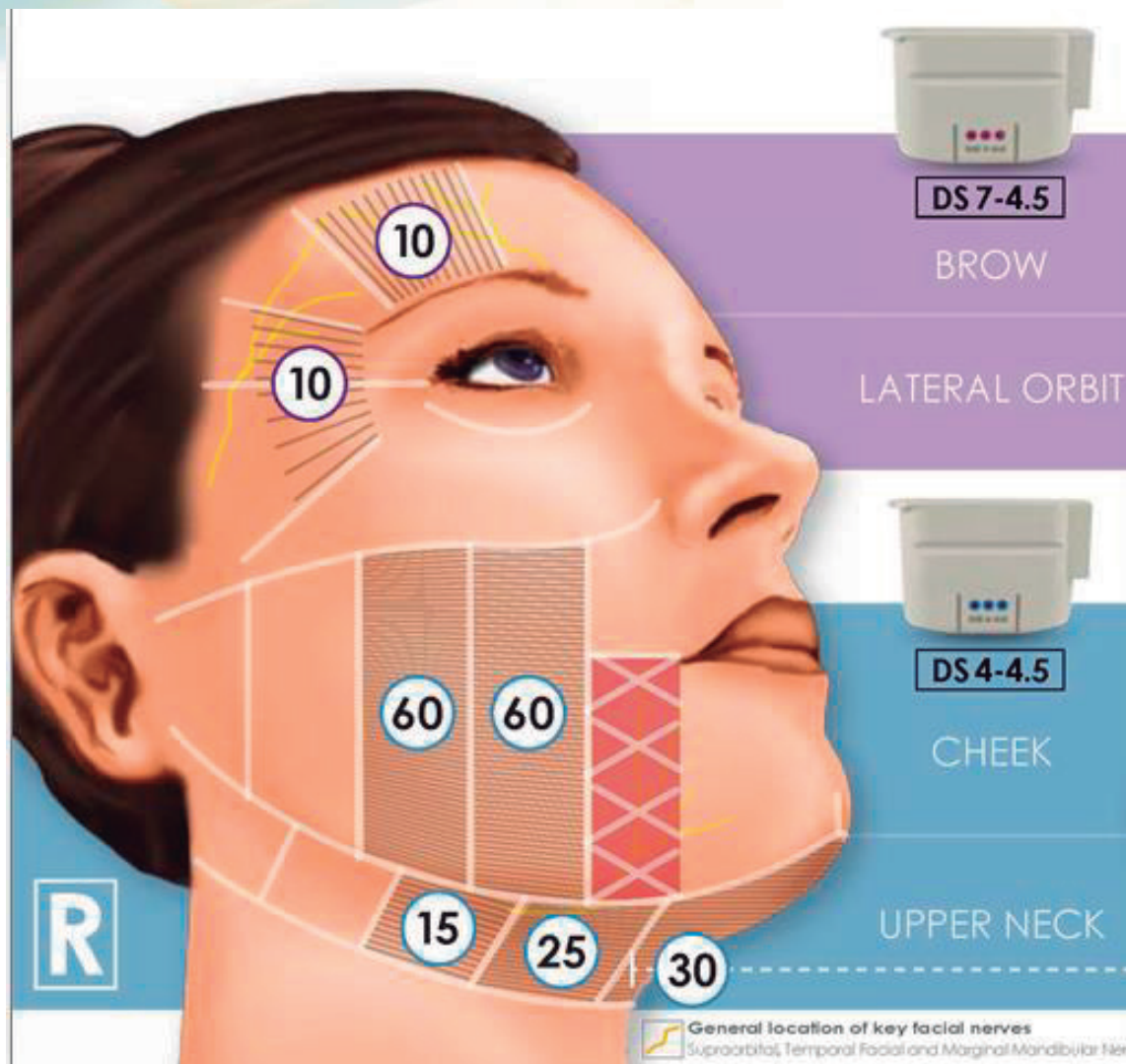
500 linhas- 1,5mm

Ultherapy[®]
SEE THE BEAUTY OF SOUND



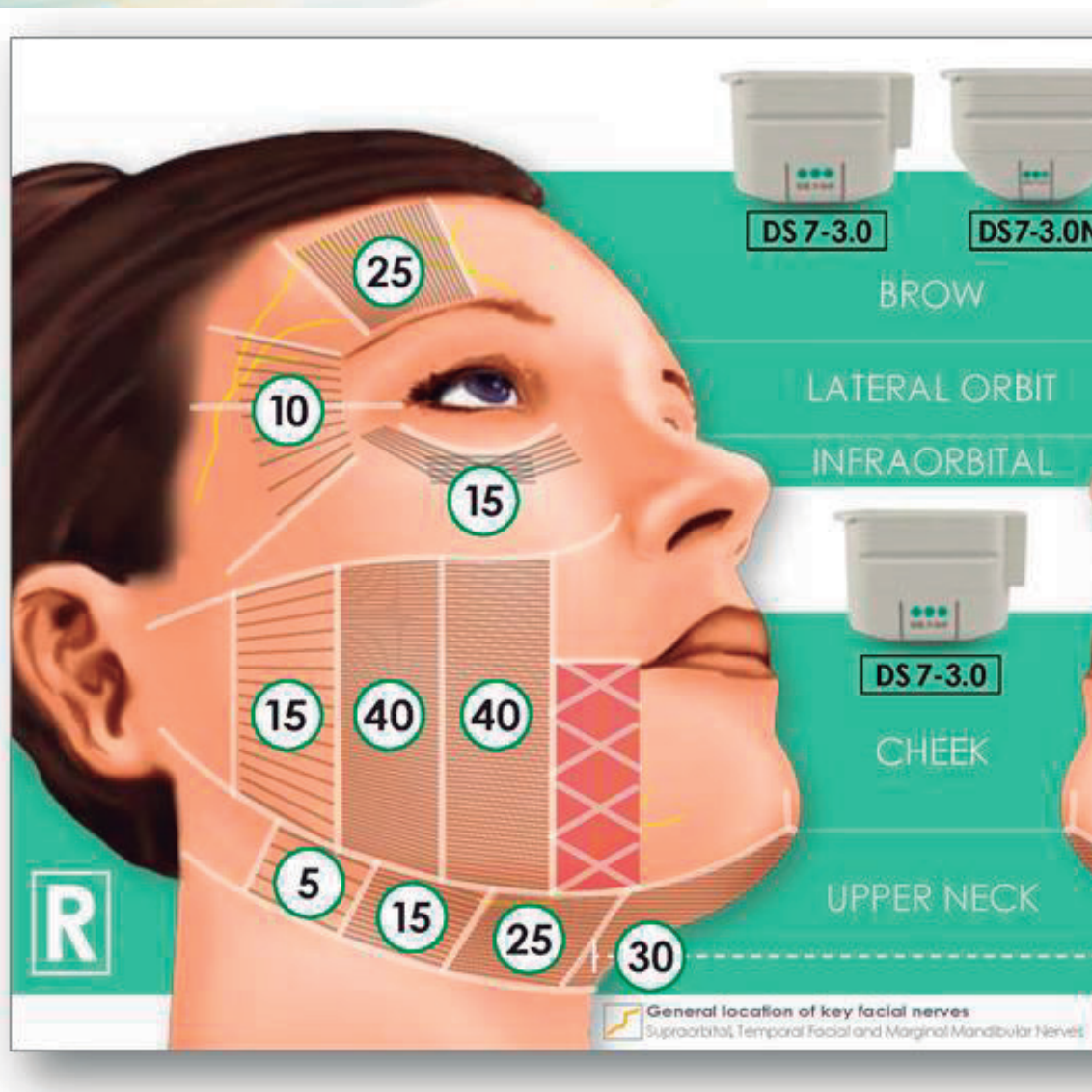
800 linhas

Ultherapy[®]
SEE THE BEAUTY OF SOUND



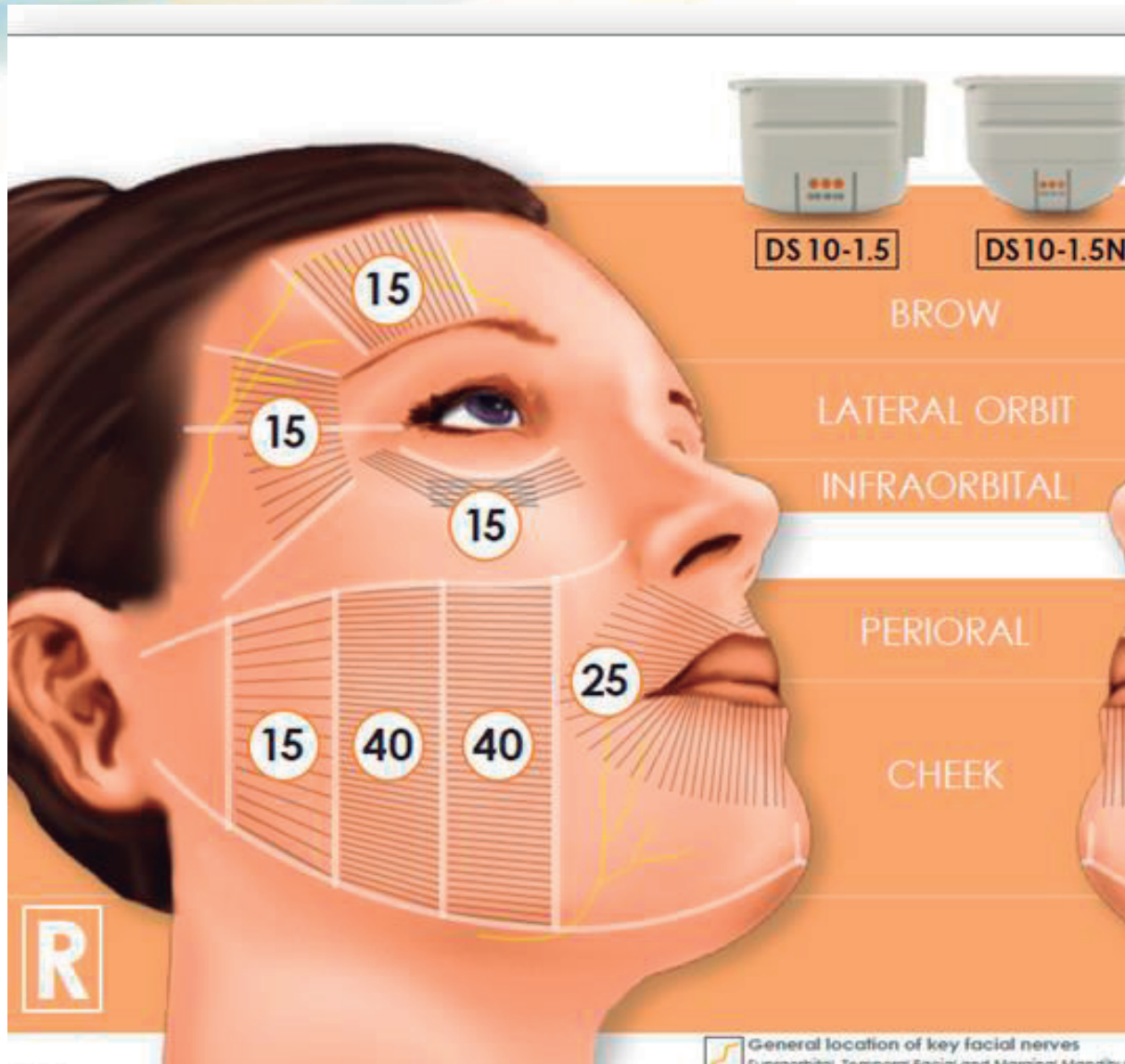
800 linhas

Ultherapy[®]
SEE THE BEAUTY OF SOUND



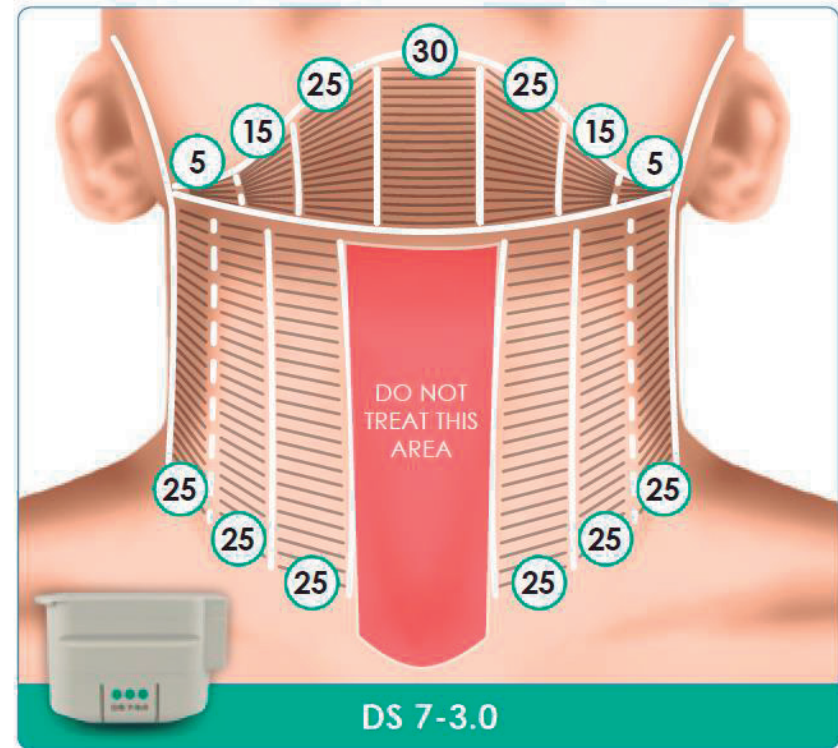
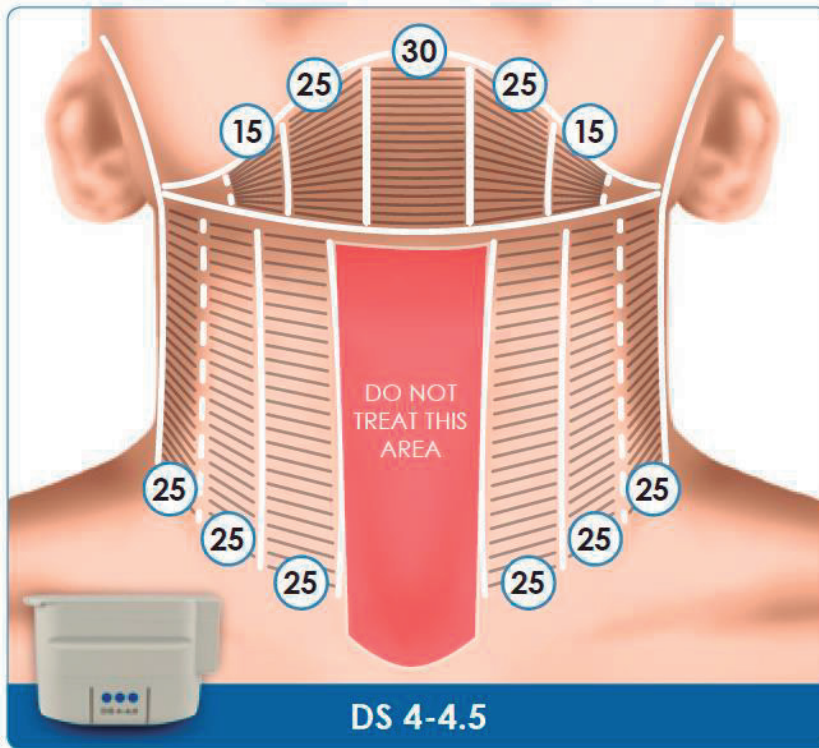
Superficial Energy Delivery

Ultherapy[®]
SEE THE BEAUTY OF SOUND



Neck Treatment Guidelines

Always treat with the deepest transducer first (DS 4-4.5), then move superficially towards the skin's surface (DS 7-3.0)



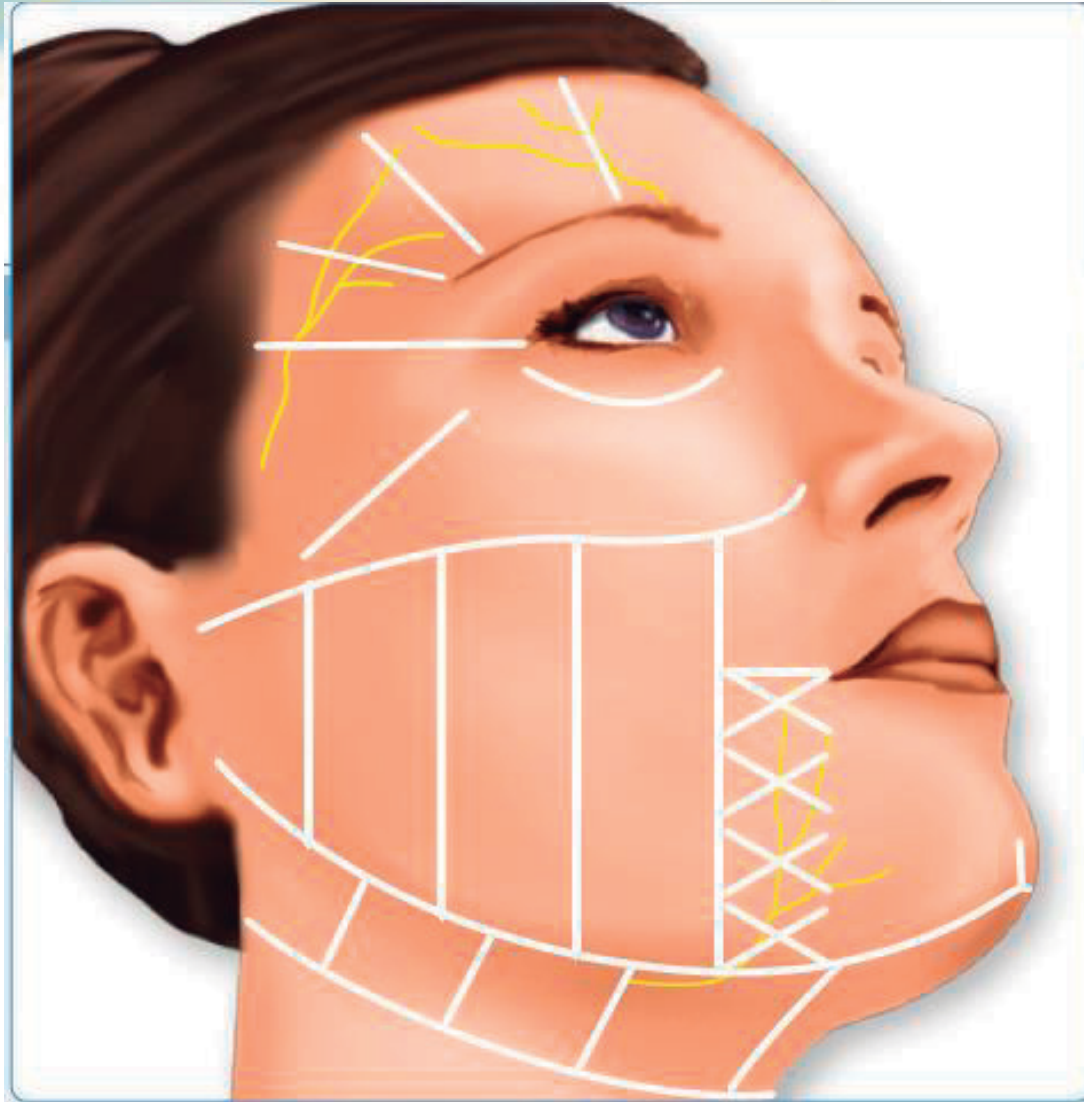
NOTES

- Do not treat over the thyroid gland, thyroid cartilage or trachea
- Avoid treating directly into bone, as this may increase discomfort
- Avoid treating directly into major vessels

- Do not treat posterior to the preauricular line
- Pull skin tight when sliding the transducer to prevent dragging the skin
- Refer to the IFU for additional treatment information

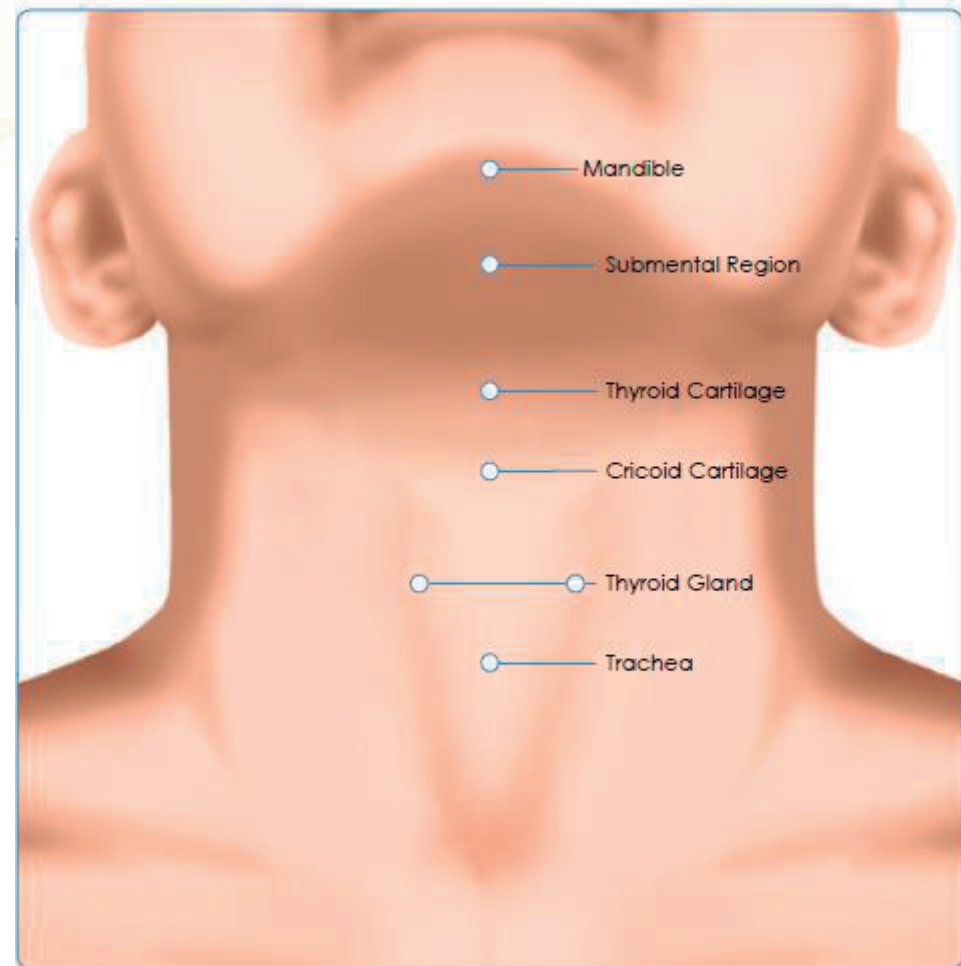
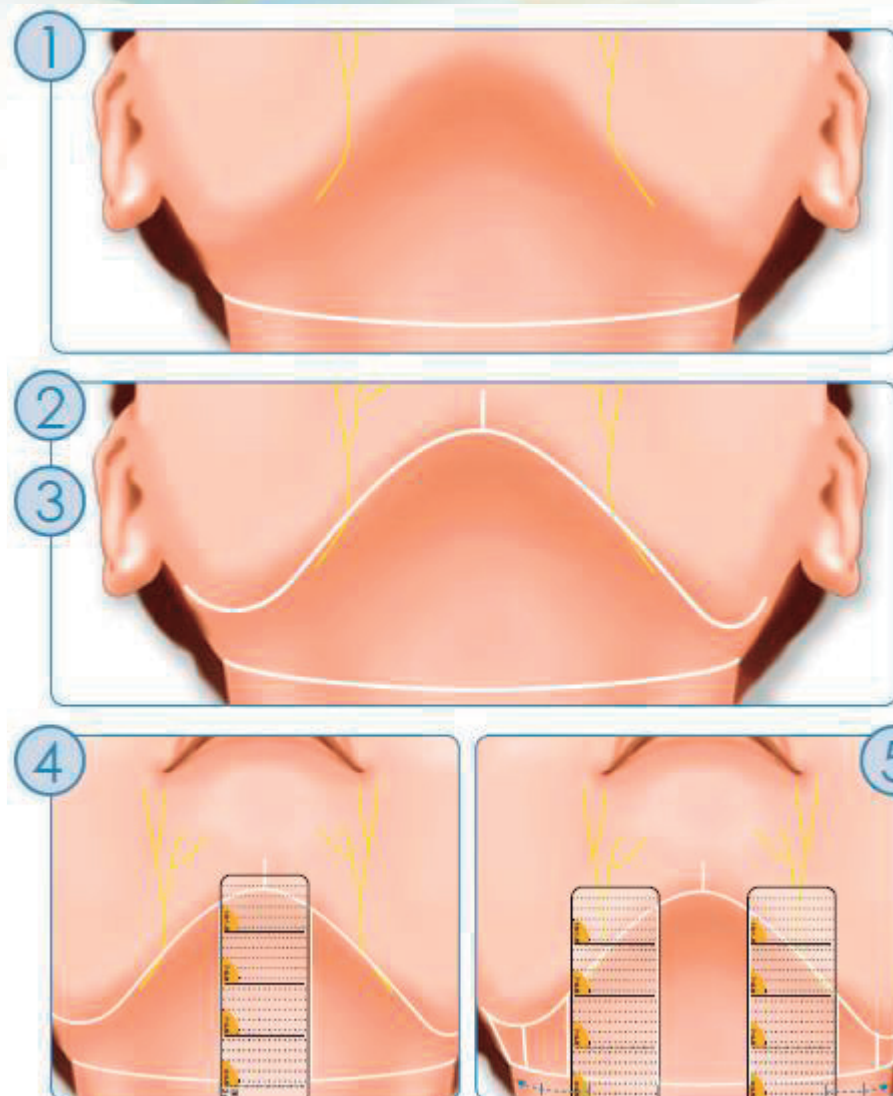
MARCAÇÃO

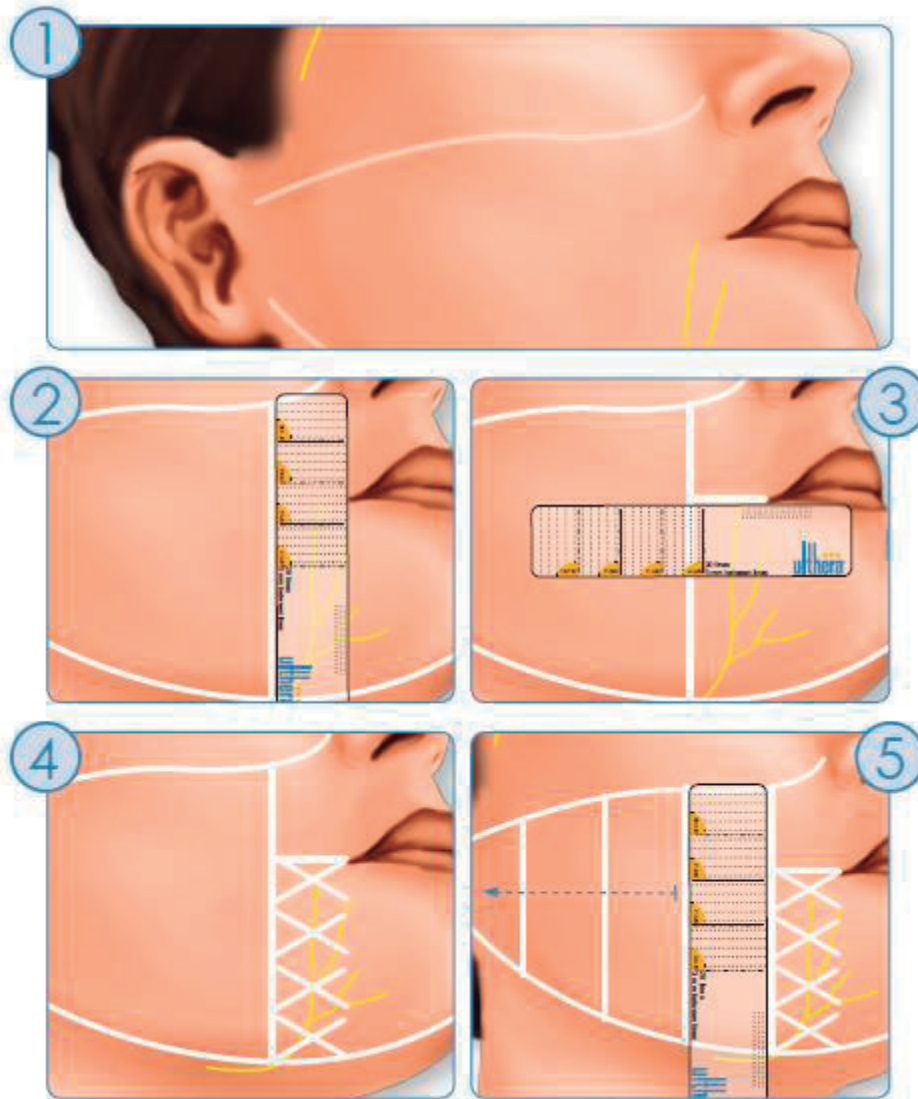
Ultherapy[®]
SEE THE BEAUTY OF SOUND



PESCOÇO

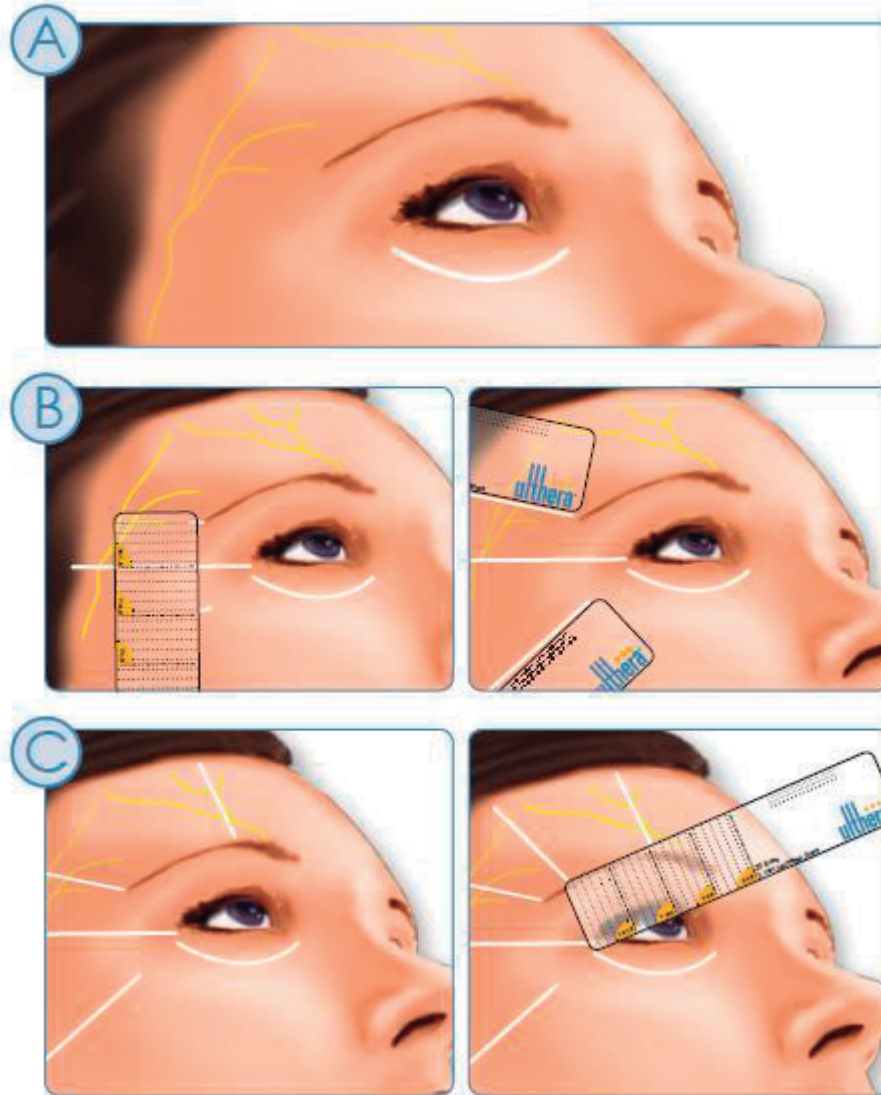
Ultherapy[®]
SEE THE BEAUTY OF SOUND





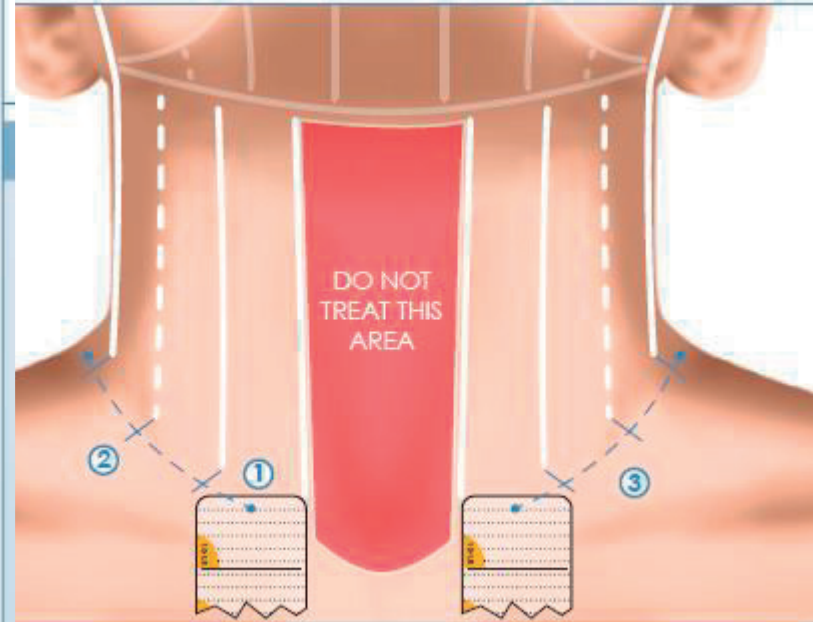
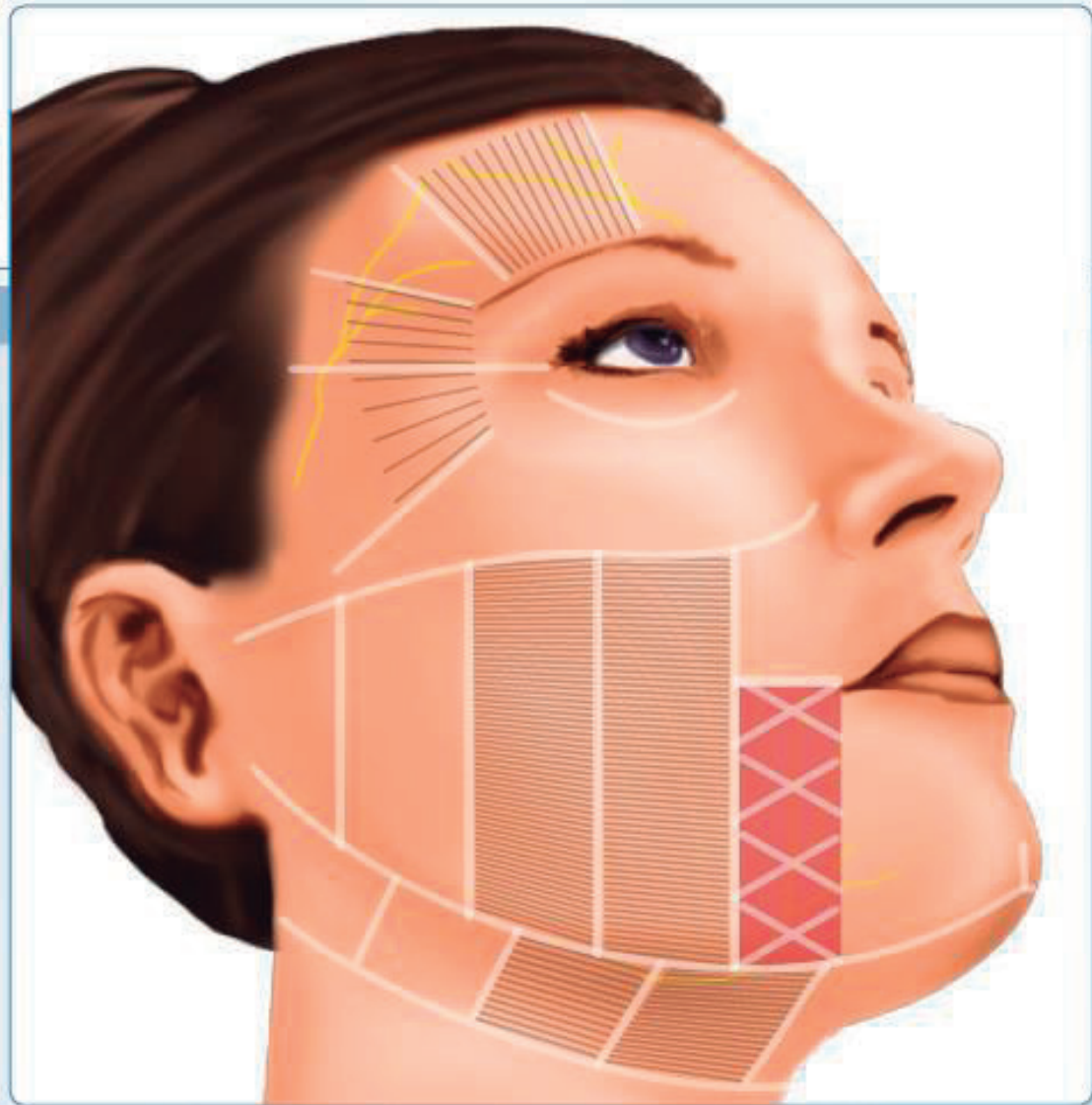
TERÇO SUPERIOR

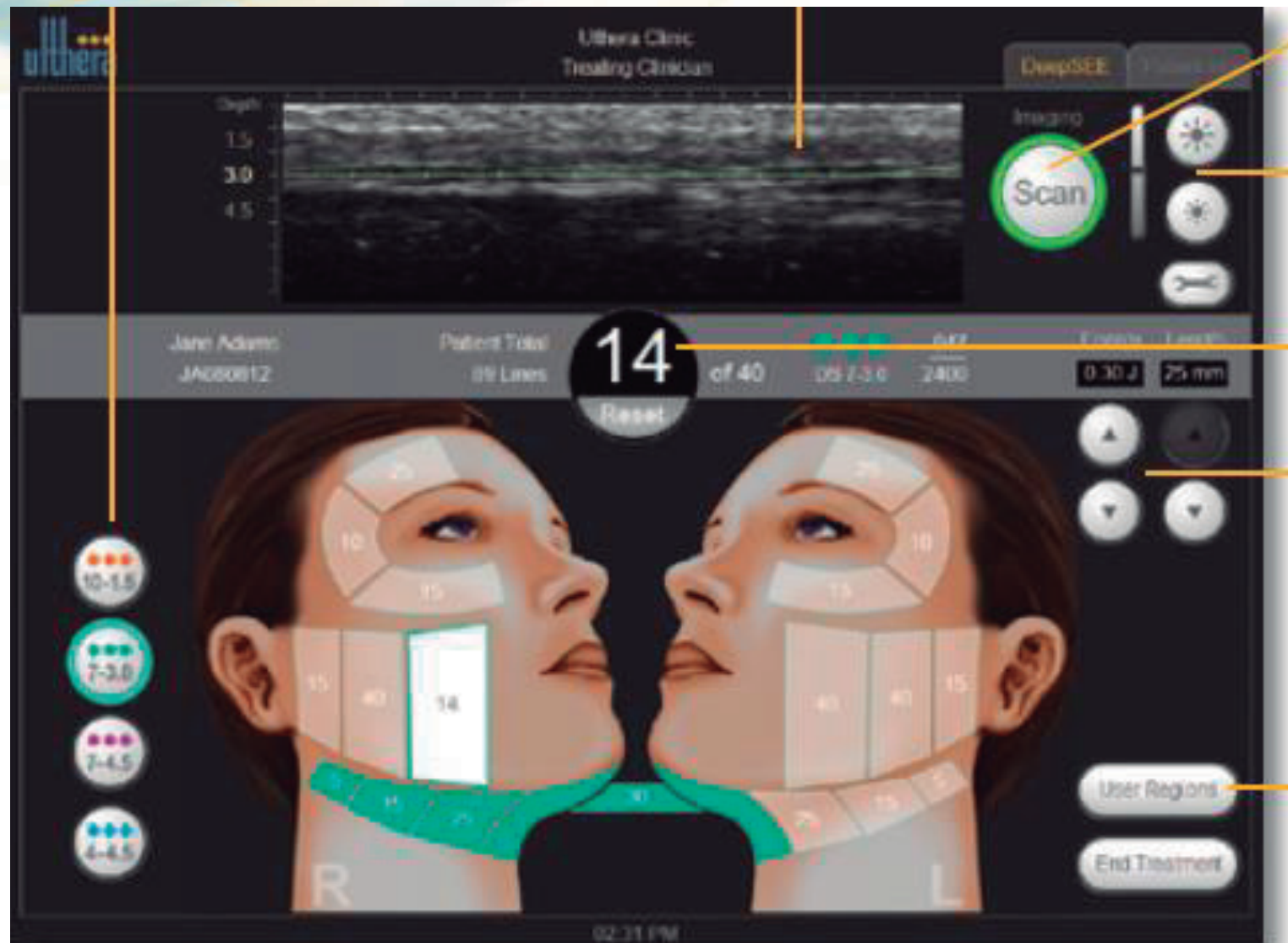
Ultherapy[®]
SEE THE BEAUTY OF SOUND



Ultherapy®

SEE THE BEAUTY OF SOUND





LOCALIZAÇÃO	4/4.5 – 1.2J	7.0/3.0 – 0,45J	TOTAL
BRACO INTERNO	160	180	340
COXA /JOELHO	140	160	300
1/3 INFABDOMEN	160	180	340
INTERNO COXA	160	180	340
NADEGA	210	230	450

TINA S. ALSTER, ELIZABETH L. TANZI. Noninvasive Lifting of Arm, Thigh, and Knee Skin with Transcutaneous Intense Focused Ultrasound . Dermatol Surg 2012;1–6

Ultherapy Literature Review

1. Alam, M., et al., *Ultrasound tightening of facial and neck skin: a rater-blinded prospective cohort study*. J Am Acad Dermatol, 2010. **62**(2): p. 262-9.
2. Alster, T.S. and E.L. Tanzi, *Noninvasive lifting of arm, thigh, and knee skin with transcutaneous intense focused ultrasound*. Dermatol Surg, 2012. **38**(5): p. 754-9.
3. Brobst, R.W., M. Ferguson, and S.W. Perkins, *Ulthera: initial and six month results*. Facial Plast Surg Clin North Am, 2012. **20**(2): p. 163-76, vi.
4. Brobst, R.W., M. Ferguson, and S.W. Perkins, *Noninvasive Treatment of the Neck*. Facial Plast Surg Clin North Am, 2014. **22**(2): p. 191-202.
5. Chan, N.P., et al., *Safety study of transcutaneous focused ultrasound for non-invasive skin tightening in Asians*. Lasers Surg Med, 2011. **43**(5): p. 366-75.
6. Dobke, M.K., et al., *Tissue restructuring by energy-based surgical tools*. Clin Plast Surg, 2012. **39**(4): p. 399-408.
7. Fabi, S.G., et al., *Evaluation of microfocused ultrasound with visualization for lifting, tightening, and wrinkle reduction of the décolletage*. J Am Acad Dermatol, 2013. **69**(6): p. 965-71.
8. Fabi, S.G. and M.P. Goldman, *Retrospective Evaluation of Micro-focused Ultrasound for Lifting and Tightening the Face and Neck*. Dermatol Surg, 2014.
9. Fabi, S.G. and A.I. Metelitsa, *Future directions in cutaneous laser surgery*. Dermatol Clin, 2014. **32**(1): p. 61-9.
10. Friedmann, D.P., S.G. Fabi, and M.P. Goldman, *Combination of intense pulsed light, Sculptra, and Ultherapy for treatment of the aging face*. J Cosmet Dermatol, 2014. **13**(2): p. 109-18.
11. Gliklich, R.E., et al., *Clinical pilot study of intense ultrasound therapy to deep dermal facial skin and subcutaneous tissues*. Arch Facial Plast Surg, 2007. **9**(2): p. 88-95.
12. Gold, M.H., W. Sensing, and J. Biron, *Use of Micro-Focused Ultrasound with Visualization to Lift and Tighten Lax Knee Skin*. J Cosmet Laser Ther, 2014: p. 1-15.
13. Jeong, K.H., et al., *Neurologic complication associated with intense focused ultrasound*. J Cosmet Laser Ther, 2013.
14. Kornstein, A.N., *Ulthera for silicone lip correction*. Plast Reconstr Surg, 2012. **129**(6): p. 1014e-1015e.
15. Kornstein, A.N., *Ultherapy shrinks nasal skin after rhinoplasty following failure of conservative measures*. Plast Reconstr Surg, 2013. **131**(4): p. 664e-6e.
16. Laubach, H.J., et al., *Intense focused ultrasound: evaluation of a new treatment modality for precise microcoagulation within the skin*. Dermatol Surg, 2008. **34**(5): p. 727-34.
17. Lee, H.J., et al., *The efficacy and safety of intense focused ultrasound in the treatment of enlarged facial pores*. J Cosmet Laser Ther, 2014.
18. Lee, H.S., et al., *Multiple Pass Ultrasound Tightening of Skin Laxity of the Lower Face and Neck*. Dermatol Surg, 2014.
19. MacGregor J.L. and Tanzi, E.L. *Microfocused Ultrasound for Skin Tightening*. Semin Cutan Med Surg **32**:18-25.
20. Minkis, K. and M. Alam, *Ultrasound skin tightening*. Dermatol Clin, 2014. **32**(1): p. 71-7.
21. Nestor, M.S. and H. Park, *Safety and Efficacy of Micro-focused Ultrasound Plus Visualization for the Treatment of the Neck*. J Cosmet Laser Ther, 2014. **13**(2): p. 14-21.
22. Oni, G., et al., *Evaluation of a Microfocused Ultrasound System for Improving Skin Laxity and Tightening in the Neck*. J Cosmet Laser Ther, 2014.
23. Pak, C.S., et al., *Safety and Efficacy of Ulthera in the Rejuvenation of Aging Lower Eyelids: A Pivotal Clinical Trial*. J Cosmet Laser Ther, 2014.
24. Sasaki, G.H. and A. Tevez, *Clinical Efficacy and Safety of Focused-Image Ultrasonography: A 2-Year Experience*. J Cosmet Laser Ther, 2014.
25. Sasaki, G.H. and Tevez, A., *Microfocused Ultrasound for Nonablative Skin and Subdermal Tightening to the Periorbital Area*. J Cosmet Laser Ther, 2014.
26. Sklar, L.R., A.K. El Tal, and L.Y. Kerwin, *Use of transcutaneous ultrasound for lipolysis and skin tightening: a review*. Aesthet Surg J, 2012. **32**(1): p. 10-20.
27. Suh, D.H., et al., *Intense focused ultrasound tightening in asian skin: clinical and pathologic results*. Dermatol Surg, 2012. **38**(5): p. 754-9.
28. Suh, D.H., et al., *A intense-focused ultrasound tightening for the treatment of infraorbital laxity*. J Cosmet Laser Ther, 2014.
29. Weiss, M., *Commentary: noninvasive skin tightening: ultrasound and other technologies: where are we in 2011?* Dermatol Surg, 2011. **37**(12): p. 1555-6.
30. White, W.M., et al., *Selective creation of thermal injury zones in the superficial musculoaponeurotic system using intense focused ultrasound*. Arch Facial Plast Surg, 2007. **9**(1): p. 22-9.
31. White, W.M., et al., *Selective transcutaneous delivery of energy to porcine soft tissues using Intense Ultrasound (IUS)*. J Cosmet Laser Ther, 2014. **13**(2): p. 109-18.



TECHLOC

EQUIPAMENTOS MÉDICOS

Empresa Associada



PARCEIROS



CONTATO

www.techlocaude.com.br

@techlocaude