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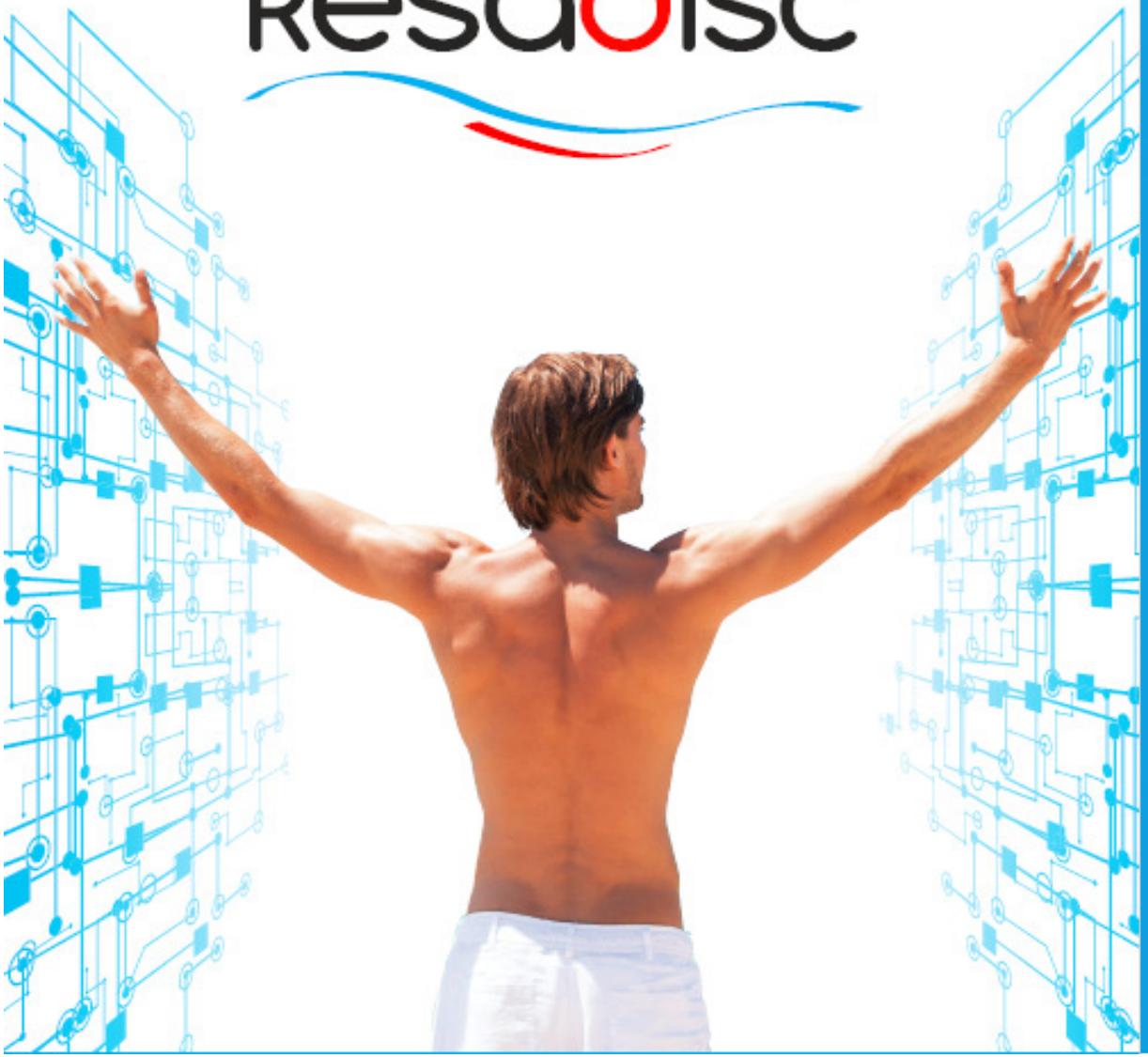

THE INNOVATIVE SOLUTION FOR THE DECOMPRESSION OF CERVICAL DISCS

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Resadisc is a bipolar device for minimally invasive decompression of the disc that uses the innovative technology of QMR® (Quantum Molecular Resonance), for the treatment of lumbar and cervical disc **protrusions**.

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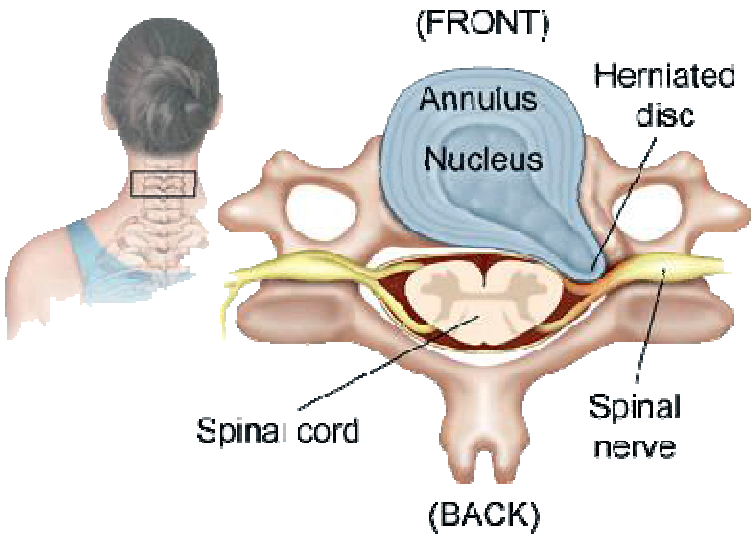
WHAT IS DISC PROTRUSION

Protrusion is the most common discopathy whit **leakage of the disc** from its natural position (nucleus) moving to the surrounding space (annulus), getting in contact with nearby nerve roots. This phenomenon can occur when the disc loses thickness or undergoes dehydration.



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THE SYMPTOMS OF CERVICAL DYSCOPATHY

- NECK PAIN
- CEPHALGIA
- VERTIGO
- NAUSEA
- PAIN/tingling in the arm/fingers

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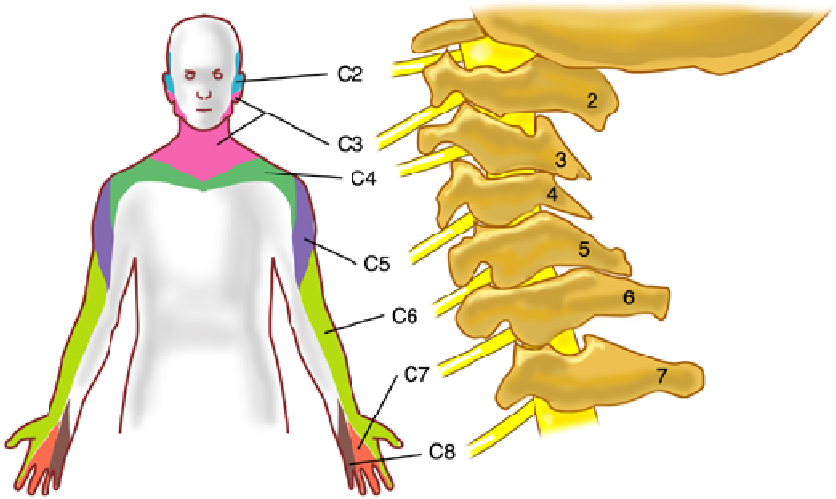
THE ANATOMICAL SITE INVOLVED

Pain, paraesthesia or both symptoms together are common evidence coming from suffering anterior roots of the brachial plexus. Pain root topography is a fundamental aspect to evaluate properly.

Cervical disc protrusion interest districts C2 to C7, and nerves root C1 to C8. (First 7 nerves root come up from the vertebral canal above the correspondent cervical vertebra, and C8 nerve root comes through C7 to T1 vertebral foramen).



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CLINICAL EVALUATION

LEVEL OF PROTRUSION	ROOT INVOLVED	SYMPTOMS
C4/5	C5	SHOULDER AND UPPER ARM
C5/6	C6	RADIAL SIDE OF THE FOREARM
C6/7	C7	DORSAL SIDE OF THE FOREARM
C7/T1	C8	ULNAR SIDE OF THE FOREARM

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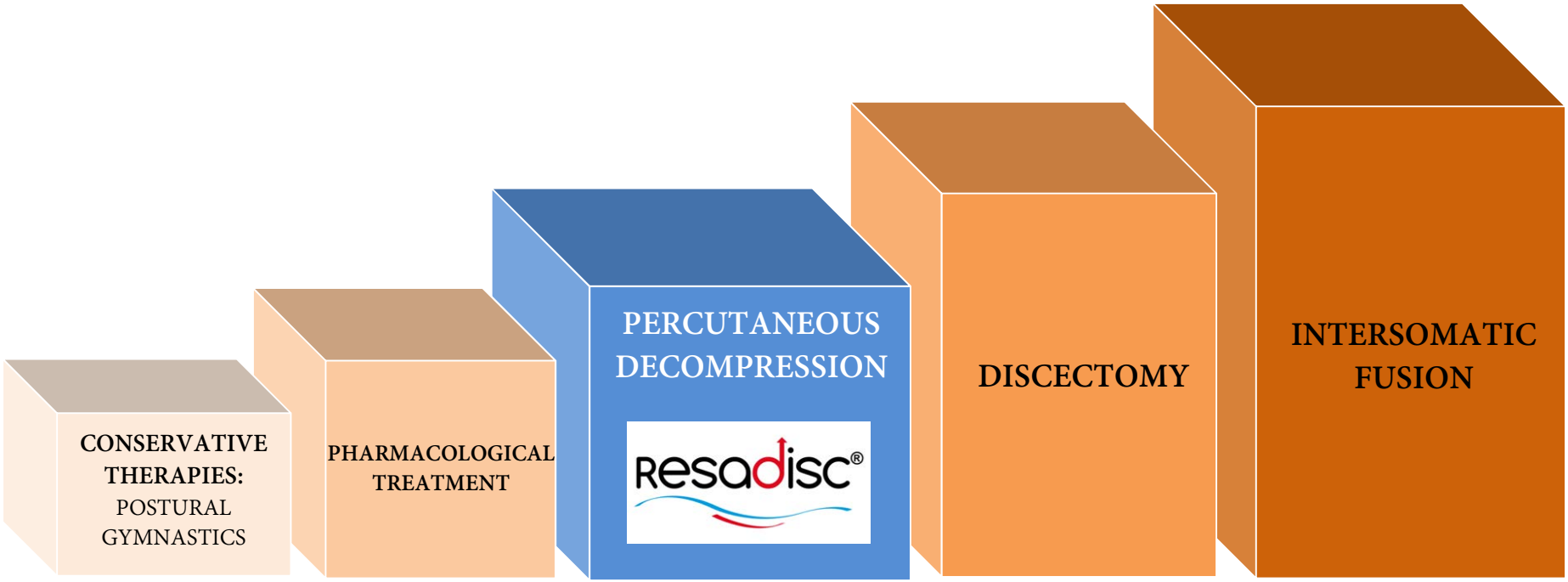
THE TREATMENT ALGORITHM



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OUR SOLUTION

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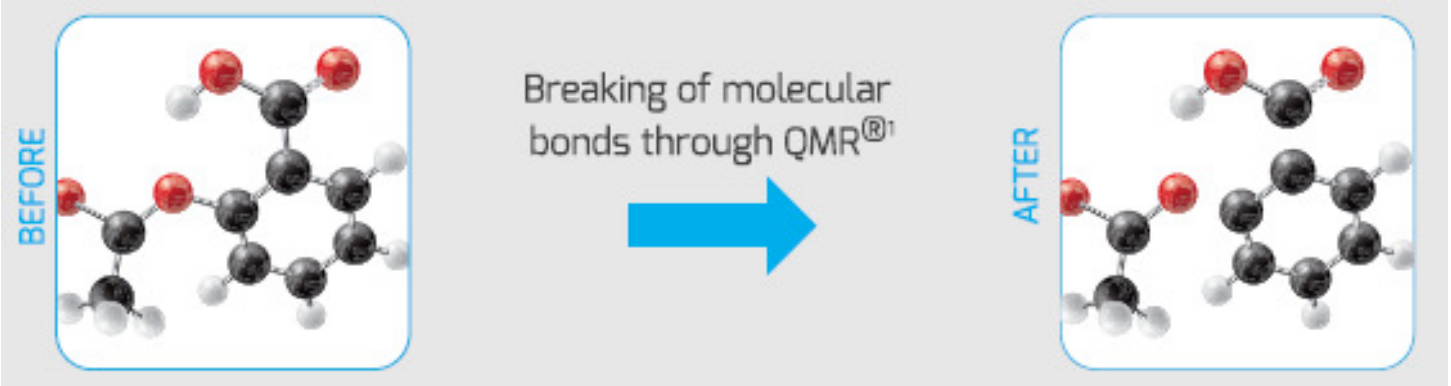
QMR® TECHNOLOGY



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QMR® TECHNOLOGY

The energy of an RF current is transmitted through packets of minimum energy (Quantum)

Energy of each Quantum = K • wave frequency (of the RF current)

The higher is the frequency of the transmitted current, the higher is the energy transmitted by each Quantum of energy

The size of the circle rappresents the energy contained in a Quantum of low frequency current

Size of the circle rappresents the energy contained in a Quantum of high frequency current

LOW FREQUENCY CURRENT vs HIGH FREQUENCY CURRENT

Low frequency current is composed by low energy quantums

RF current generator

Target tissue

Increasing the intensity of the current meaning to increase only the number of quantum per second not the energy contained in the single quantum

RF current generator

Target tissue

Increasing the wave frequency of the current increases the energy contained in a single quantum - QMR®®

RF current generator

Target tissue

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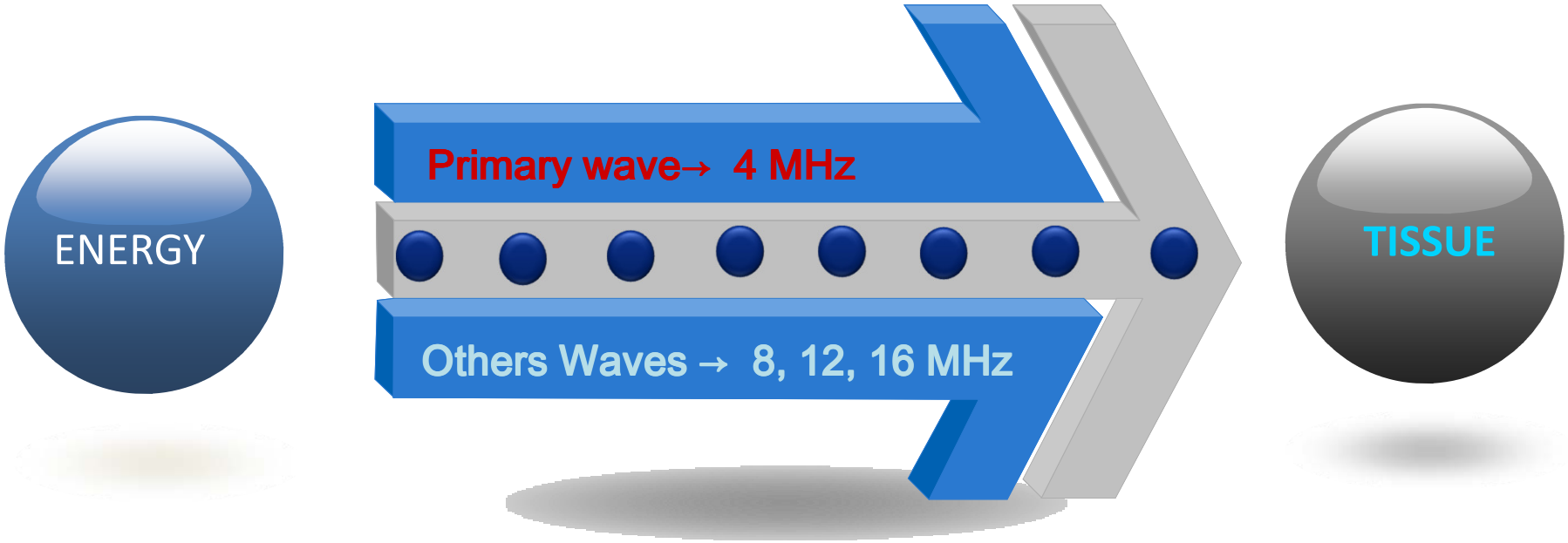
REVOLUTIONARY TECHNOLOGY FOR TISSUE DECOMPRESSION



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BIOLOGICAL EFFECT

Standard RF	QUANTUM MOLECULAR RESONANCE
Supplied Energy ≠ Energy of bond	**Supplied Energy = Energy of bond**
Molecular vibration	Breaking molecular bond
Increase temperature	**NO** Increase temperature (T ≤ 50°C)

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FEATURES OF THE DEVICE

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KIT FOR CERVICAL DISC DECOMPRESSION:

ACCESS NEEDLE
Diameter: 19G (0,91mm)
Lenght: 70 mm

BIPOLAR ELECTRODE
Diameter: 0,90 mm
Lenght: 95 mm
Insulation between 2 poles: 1,0 mm
Punta attiva: 2,0 mm
Cavo: 3m

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RESABLATOR SMART: **Automatic Resadisc® identification**
Auto setting: Automatic ablation power setting: Cervical: 16W
Screen: Colour LCD

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CERVICAL DECOMPRESSION SURGICAL TECHNIQUE

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- The patient is placed in supine position
- The neck is hyperextended and the shoulders are lowered
- The disc level to be treated is identified with radioscopy
- The physician positions on the patient's right side is perfect to perform *"**2 fingers approach**"* moving carefully the following structures:

a) With forefinger: the carotid and the sternocleidomastoid muscle;

b) With middle finger: trachea and esophagus controlaterally

- Under radioscopic control, the needle is insert into the intervertebral disc between the vertebral bodies that the operator is perceiving while maintaining the digital pressure

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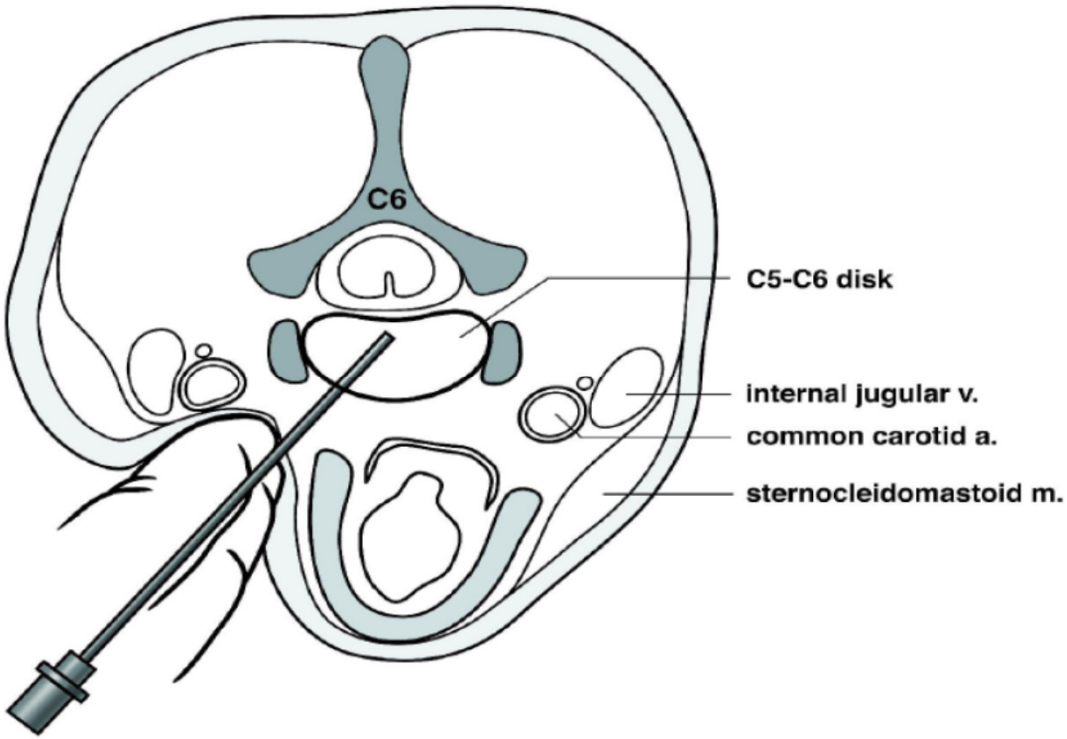
C6
C5-C6 disk
internal jugular v.
common carotid a.
sternocleidomastoid m.

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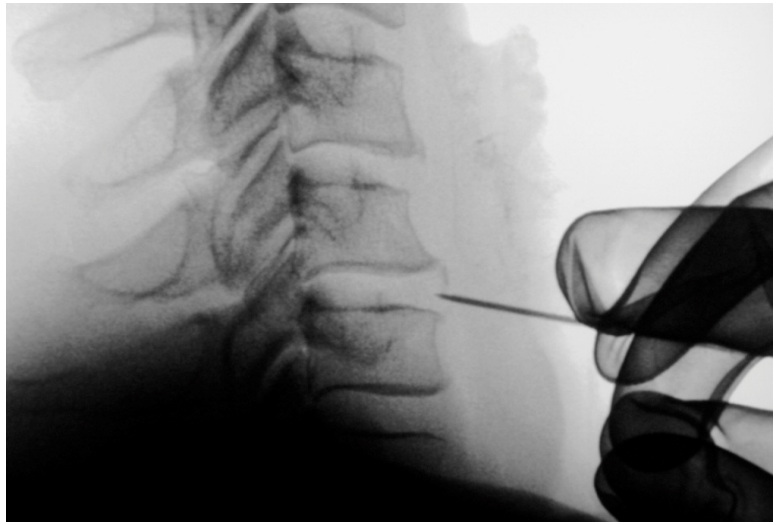

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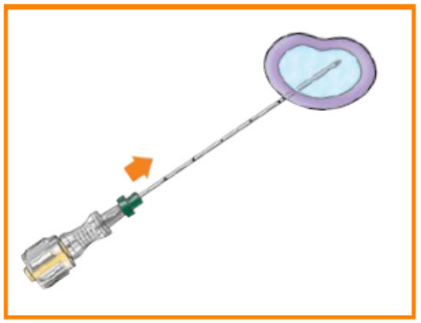
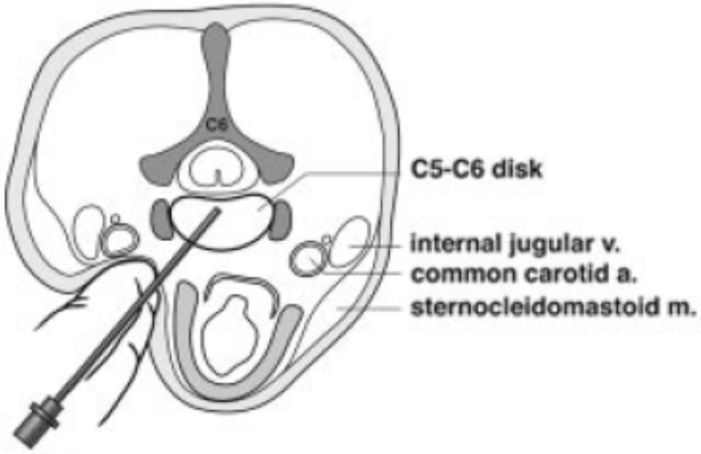
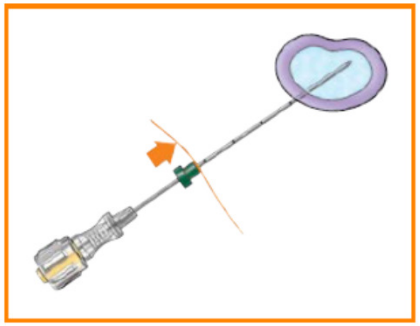


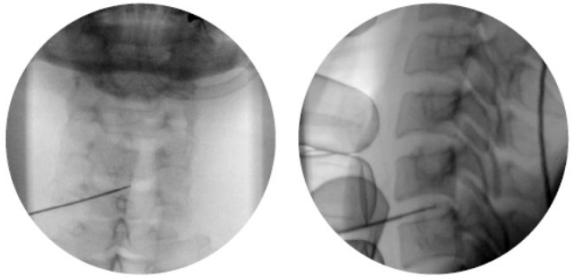
Dirigersi verso il terzo posteriore del nucleo





Marcatore riposizionato a livello della cute

Inserimento del wand con monitoraggio sotto guida fluoroscopica



Immagini fluoroscopiche

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- The stylet of the access needle is removed and bipolar electrode connected to the QMR® Resablator SMART is inserted

- Automatic recognition of the generator (Resablator SMART) which is set to the power of 16W for cervical treatment

- 3 treatments are performed for 3 seconds each, rotating the electrode 360 degrees while delivering the decompression energy through the special pedal connected to the Resablator SMART generator

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ADVANTAGES OF RESADISC SYSTEM

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- Bipolar system
- Precise and localized decompression 1mm from the electrode tip
- Lower temperature <50°C
- No edema, no scarring and necrosis
- Reduction of post-operatorive pain
- Possibility of treating vertebral discs with a lower degree of hydration


thank you
danke
谢谢
ngiyabonga
teşekkür ederim
gracias
merci
obrigado
bedankt
dziękuję
спасибо
Баярлалаа
рахмат
go raibh maith agat
mochchakkeram
sukriya
kop khun krap
terima kasih
arigatô
dakujem
grazie
takk
taiku
sagolun
hvala
kiitos
dank je
tapadh leat
merci
мерси
хвала
감사합니다
ありがとう
ευχαριστώ
mahalo
asante
obrigada
trugarez
shukriya
dhanyavadagalu
rahmet
tanemirt
diolch
xièxie
najis tuke
dékuji
sobodi
enkosi
faafetai lava
blagodaram
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dhanyavad
dankie
nandri
bayarlalaa
köszönöm
akun
dankon
djiere dieuf
tenki
murakoze
manana
mamnun
дякую
sulpáy
kam sah hamnida
rahmat
mèsi