# Vaginal rejuvenation - CO<sub>2</sub> laser therapy



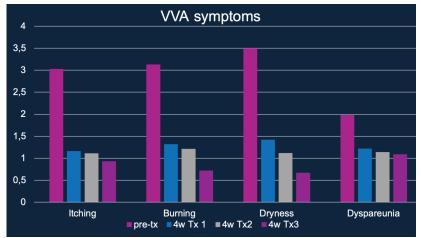


Figure 2: Results of 248 patients from our clinic, aged 41-74, showing symptoms of VVA and / or symptoms of vaginal

Figure 1: 32-year-old 2g/2p with labial hypertrophy, vaginal laxity and SUI grade 1. Laser labioplasty and clitoral hood reduction was performed six weeks before three sessions of  $CO_2RE$  Intima treatment were applied. Full patient satisfaction was achieved.

omen with menopausal symptoms, as well as postnatally, are looking for additional methods as alternatives to traditional hormone replacement therapy (HRT), local oestrogens or topical creams and lubricants, since only 34% comply with their prescribed therapy. Women report an impairment of sexual function, dryness, itching, and other atrophic signs like shifting physiological pH alongside shortening and narrowing of the vaginal canal, and recurrent urinary tract infections. Throughout their lifespan, up to 96% of women suffer from one or a combination of these symptoms.

Aesthetic CO<sub>2</sub> laser systems are known to be effective, and have numerous indications varying from aesthetic applications to therapeutic indications. Treatment regimens have now been established for beauty and body applications, as well as for the treatment of the symptoms of vulvovaginal atrophy.

To address the changing needs of women for a better therapy, the introduction of a therapy device like the  $CO_2RE$  Intima laser system was our logical solution. The device needed to offer the full spectrum of  $CO_2$ laser therapy, from light fractionated facial treatments to surgical and full ablative treatments, while being a lightweight and transportable system.

## Procedure

Eligible patients for a vaginal treatment are recruited using a standardised questionnaire for vulvovaginal atrophy (VVA). They usually report itching, burning and pain during intercourse, along with a loss of vaginal sensation. Special questionnaires are used for women after childbirth who report similar symptoms, including a widening of the vaginal canal.

laxity / SUI grade 1

Patients give informed consent to the procedure after a thorough medical video explanation. Vaginal examination is performed prior to the procedure to ensure the absence of infections, lesions or other contraindications, such as meshgrafts. Whenever external treatment is simultaneously performed, hair removal is required. Hydrophobic prilocaine / xylocaine cream is applied on labia majora and minora 20 minutes prior to treatment.

The procedure is performed with the patient sitting in a gynaecological chair, wearing protective goggles suitable for  $CO_2$  lasers. The vaginal canal is then cleaned with a cotton swab to reduce excessive fluid within the treatment area. Ultra liquid paraffin-oil is used to lubricate both the labia and the single-use applicator. The laser applicator is mounted to its 360° turning lens and inserted up to the desired depth determined previously. The standard Intima setting of the  $CO_2RE$  device is used with 5% fractional coverage / 50mJ / 396 J/cm<sup>2</sup>.

Starting in the 12 o'clock position and turning clockwise, one beam is applied at every 30° position of the laser-outlet - applying 12 beams / 360° turn. The applicator is then retracted by 1cm and another 360° turn is performed until the whole vaginal canal is treated.

The procedure is painless, however, mild discomfort may be experienced in the outer third of the vaginal canal. The applicator is then discarded and the handpiece and lens for treatment of the outer genital are mounted. Removal of excessive oil and anaesthetic cream is necessary before applying laser treatment. Adjacent beams are applied to labia majora and minora, reaching the former hymenal rim with the same energy settings. Aftercare consists of the application of hyaluronic acid gel capsules for 14 consecutive days, along with hyaluronic acid gel for the outer genitalia twice daily for two weeks. The best treatment results are observed after three (or a maximum of five) treatments every four weeks. Follow-up is performed four weeks after the last treatment. An additional single treatment is suggested after one year. If laser surgical correction of excessive skin is required, this is performed six weeks before the Intima treatment.

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**Declaration of competing interests:** Andreas-Simon Lenhard has been reimbursed by Candela Corporation, the manufacturer of CO<sub>2</sub>RE Intima, for speaking at conferences.