



CO₂ Laser Treatment

(Advanced laser resurfacing for wrinkles, scars, and significant sun damage)

What Is CO₂ Laser Treatment?

CO₂ (carbon dioxide) laser treatment is a powerful skin-resurfacing procedure that removes damaged outer skin layers while stimulating **deep collagen remodeling**. It is considered one of the **most effective laser treatments** for improving skin texture, wrinkles, scars, and advanced sun damage.

CO₂ laser is often chosen when patients want **more dramatic results** than lighter treatments can provide.



What Does CO₂ Laser Treat?

CO₂ laser resurfacing may be used to improve:

- **Deep wrinkles** (especially around the mouth and eyes)
- **Acne scars** and surgical scars
- **Uneven skin texture**
- **Severe sun damage**
- **Enlarged pores**
- **Benign growths** (selected cases)
- Overall skin firmness and tone

Your dermatologist will determine whether **full-field or fractional CO₂ laser** is best for your skin and goals.

How CO₂ Laser Works (Patient-Friendly Explanation)

- The laser precisely removes damaged skin layers
- Heat energy reaches deeper skin layers to trigger **collagen production**
- New, healthier skin forms during healing
- Results continue to improve over **months**, not days

Because CO₂ laser is more intensive, it requires **more downtime** than many other laser treatments—but often provides **long-lasting, visible improvement**.

What to Expect During Treatment

CO₂ laser is performed **in the office or procedure suite**.

During your visit:

1. Skin is cleansed and prepped
2. Strong topical numbing and/or local anesthesia is used (sometimes oral medication is added)
3. Laser treatment is delivered in a controlled, precise pattern
4. Cooling ointment and protective dressings are applied

Treatment time varies but often takes **45–90 minutes**, depending on the area treated.

Healing Timeline (General)

- **Days 1–7:** redness, swelling, oozing, and crusting
- **Days 7–14:** skin begins to heal and re-epithelialize
- **Weeks 3–6:** redness gradually fades
- **Months 2–6:** collagen remodeling and continued skin improvement

Exact recovery varies based on treatment depth and individual healing.

Pre-Op Instructions (Before CO₂ Laser)

4 weeks before treatment

- **Avoid sun exposure and tanning** (including self-tanner)
- Use **broad-spectrum sunscreen daily**
- Stop smoking if possible (smoking slows healing)

1–2 weeks before

- Stop **retinoids, exfoliating acids, and harsh skincare** (unless directed otherwise)
- Tell us if you:
 - Have a history of **cold sores** (preventive antiviral medication is often prescribed)
 - Are prone to **dark marks (PIH)**
 - Have keloid scars or poor wound healing
 - Are pregnant or breastfeeding
 - Have active skin infections or rashes

Day of treatment

- Arrive with **clean skin** (no makeup, lotions, or sunscreen)
 - Arrange **time off work and social activities** for healing
 - Plan transportation if sedation or oral medication is used
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Post-Op Instructions (After CO₂ Laser)

What's normal

- Redness, swelling, and oozing in the first few days
- Crusting or peeling as skin heals
- Tightness, warmth, and sensitivity
- Pink or red skin that gradually fades over weeks

Aftercare essentials

- Cleanse gently as instructed (often multiple times daily early on)
- Apply prescribed ointments to keep skin **moist and protected**
- **Do not pick or scrub**
- Avoid heat, exercise, and sweating during early healing
- **Strict sun avoidance and protection** are critical

Makeup

- Makeup is usually allowed **after full skin healing**, timing varies by treatment depth

Call the office immediately if

- You develop increasing pain, pus, fever, or spreading redness
- Blisters or ulcers form
- Redness worsens instead of improving
- You notice darkening of skin beyond expected healing

Who Is a Good Candidate for CO₂ Laser?

CO₂ laser may be appropriate if you:

- Have **moderate to severe wrinkles or scars**
- Want significant improvement in texture and tone
- Can commit to downtime and aftercare
- Can avoid sun exposure during recovery

It may not be appropriate if you:

- Have active infection or inflammation
- Are unable to tolerate downtime
- Have certain medical conditions that impair healing

Your dermatologist will carefully assess whether CO₂ laser is right for you.

CO₂ Laser Treatment FAQ

Is CO₂ laser painful?

Comfort measures are used, including numbing medication. Most patients describe pressure and heat rather than sharp pain.

How much downtime is there?

Downtime is typically **1–2 weeks**, with lingering redness that fades gradually over several weeks.

How long do results last?

Results can last **years**, especially with good sun protection and skincare. Aging continues, but skin quality is often significantly improved.

Is CO₂ laser better than fractional laser?

CO₂ laser is **more aggressive** and provides more dramatic results but requires more downtime. Fractional lasers offer improvement with less recovery. We help you choose the best option.

Can CO₂ laser cause dark spots?

Yes, post-inflammatory hyperpigmentation (PIH) can occur, especially in pigment-prone skin. Careful planning and strict aftercare reduce this risk.

Can CO₂ laser be combined with other treatments?

Yes—often combined with neuromodulators, fillers, or medical-grade skincare. Timing is important and will be guided by your provider.

Is CO₂ laser covered by insurance?

CO₂ laser resurfacing is typically considered **cosmetic** and not covered by insurance.
