

# International Conference on Clinical & Experimental Dermatology, Plastic Surgery

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## Carboxy therapy -an age old technology on rise in covid era for many aesthetic indications

subcutaneous administration of CO<sub>2</sub> gas., CO<sub>2</sub> reacts with water molecules in the tissue resulting in molecular carbonic acid, which reduces the tissue pH. Due to the Bohr effect (the lower the pH, the weaker the bond between hemoglobin & O<sub>2</sub>), leading to release of O<sub>2</sub> from hemoglobin & vasodilation of microcirculation accompanied by an increase of peripheral blood flow. CXT procedure has increased in popularity in the field of aesthetics & particularly for dermal rejuvenation & fat lipolysis. It is effective in treatment of wound healing, periorbital dark halos, wrinkles, burns, surgical scars. The reversible binding between CO<sub>2</sub> & water inside erythrocytes is a physiological process, which aim is to transport CO<sub>2</sub> from tissues to lungs in human body. the dissociation of carbonic acid leads to a decrease in blood pH occurs at the level of capillary vessels, The interaction between carbonic acid & plasma prevents the formation of acidosis. Reduction in pH of blood & hyperoxidation contribute to vasodilation &, hence it has an effect on microcirculation. This promotes the release of local growth factors (including vascular endothelial growth factor) which then stimulate angiogenesis. Major goal of CXT is to improve & restore cutaneous microcirculation, & consequently increase tissue perfusion & also reduce adipose tissue. In this study, I want to discuss how a carboxy therapy can help patients with various aesthetic problems with minimal visits to the clinic and minimal investment in the Covid era.

**Conclusion:** Carboxy therapy is injecting carbon dioxide gas into subcutaneous tissue or dermis which increases partial pressure of oxygen, increases microcirculation, perfusion, increases thickness of dermis, increases collagen and elastin, reduces and destroys adipose cells. Of late patients suffering with aesthetic problems like acne scars, stretch marks, traumatic scars, and periorbital wrinkling do not want expensive and invasive treatments. So Carboxy therapy can be offered as cost-effective treatment in place of lasers without compromising on the efficacy and safety.

## Biography

Dr. Vimala Manne did her medical graduation from Gandhi medical college & Teaching Hospital, and completed Postgraduation M.D in Dermatology at Osmania Medical College & Teaching hospital. Presently she is an Associate Professor at V.R.K Woman's Medical College, Teaching Hospital and Research Centre and Medical Director of Dr. Vimala's Skin, Hair & Laser Centres at Hyderabad in India. She was a Faculty member and Consultant Dermatologist at Oliva Advanced Hair and Skin Clinics (2009-2014), Faculty at Katuri Medical College, Care Hospital, Kaya clinic, Banjara Hills. She has published papers in reputed journals and has been a speaker for various topics in the fields of Dermatology and Cosmetology.



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