Beste T, Daucher J, Holbert D. Humidified Compared With Dry, Heated Carbon Dioxide at Laparoscopy to Reduce Pain. *Obstet Gynecol*. 2006;107:263-8.

LINK
http://journals.lww.com/greenjournal/Abstract/2006/02000/Humidified_Compared_With_Dry,_Heated_Carbon.10.aspx

Abstract.

OBJECTIVE: To study whether using 95% humidified, heated carbon dioxide (CO_2) at laparoscopy reduces pain compared with dry, heated CO_2.

METHODS: Patients were randomly assigned to either heated, 95% humidified CO_2 (study group) or heated, dry CO_2 (control group) during laparoscopy. Pain control was achieved per standard protocols. Pain scales were administered the first 4 hours and 24 and 48 hours postoperatively.

RESULTS: The 89 patients available in the intent-to-treat model revealed a decrease in total morphine equivalents and a decrease in pain scores at 1, 2, and 24 hours in the study group (directional *P* values < .05). Subgroup analysis in patients without chronic pelvic pain revealed lower mean pain scores at 1, 2, 24, and 48 hours and decreases in postoperative and total morphine equivalents (directional *P* values < .05) in the study group.

CONCLUSION: At laparoscopy, heated, 95% humidified CO_2 effectively decreases postoperative pain and narcotics usage compared with heated, dry CO_2.