

**Ott DE. Laparoscopy and adhesion formation, adhesions and laparoscopy. *Semin Reprod Med* 2008; 26: 322-330**

LINK - <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4090584/>

#### Abstract

Laparoscopic peritoneal adhesion formation follows a pathway similar to laparotomy, both of which are only partially understood. Laparoscopic adhesion formation is complicated and influenced by pressure, dry gas desiccation, and hypoxia caused and superimposed by the pneumoperitoneum. It may further be affected by products of tissue combustion and inappropriate irrigation. Adjuvants are a poor substitute for attention to surgical detail and offer little help for the problem. The best defenses to reduce adhesion formation are maintenance of a normal physiologic peritoneal state that is wet and warm, gentle tissue handling, low intra-abdominal pressure, appropriate irrigation, and evacuation of smoke. Continued research into peritoneal cell response to the provocative circumstances of laparoscopic surgery will hopefully offer assistance to diminish the potential for laparoscopic adhesion formation.

Hypercapnia can occur as the store of CO<sub>2</sub> in the tissues is saturated and there is continuous inflow of external CO<sub>2</sub>. It usually takes several hours to achieve a steady state of CO<sub>2</sub> elimination after desufflation of CO<sub>2</sub> pneumoperitoneum and mechanical ventilatory support may sometimes be needed. In conclusion, caution should be taken against hypercapnia and respiratory acidosis in patients with peritonitis undergoing laparoscopic surgery because of the likelihood of these events occurring during the procedure.