

RECOMMENDATIONS FOR BEST PRACTICE WHEN LAPAROSCOPY IS PERFORMED:

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General recommendations:

- Use smoke evacuation systems with appropriate filters or a closed-loop system
- Minimize leaking at port sites and DO NOT VENT unfiltered pneumo CO2 into the room
- Evacuate all the CO2 from the patient through the aspiration system (e.g. AirSeal) or via a suction with filter (this filters any particles, to minimize its escape into the room's air.)
- At the end of the case or if transitioning to an extraction phase/ open phase of the surgery, evacuate the CO2 through the aspiration system or thorough a suction with filters before making an incision for tissue/specimen extraction.

To avoid plume:

- Limit electrocautery and keep to the lowest possible setting
- Avoid use of LASER, Thunderbeat* (*not advised with AirSeal system as the moisture from the plume will disable the smoke evac)
- Bipolar cautery and sharp Metzenbaums is best; consider Endo-loop or suturing; LigaSure if needed
- Active suctioning with filter during the presence of any cautery (or use closed system such as AirSeal)
- Use smoke evacuator through the case (ideally with ULPA filter)
- Use laparoscopic suction of smoke (with filter)
- If using AirSeal, the closed system actively evacuates the smoke and has a ULPA filter. Place the smoke evac tubing at a location near the surgical site (e.g. typically not at camera port) but not too close so as to avoid aspirating fluid or water vapor which will disable the smoke evac capability.
- If using AirSeal, do not use laparoscopic suction for smoke, only for fluid (unless suction has filter)

Minimize leaking at port and port sites:

- Minimize number of trocars
- Check port seals; suture the port site to ensure tight seal around port sleeves
- consider using disposable trocar ports with balloon if unable to maintain good seal
- Careful surgical technique to assure a good seal between the abdominal wall and the trocar:
 don't make the incision too big
- Insufflation to be kept at 10-12 mmHg throughout entire case

- Use suction device prior to instrument changes (so that abdominal pressure is approximately 5 mmHg)
- Use suction device prior to removing ports (so that abdominal pressure is approximately 5 mmHg)
- DO NOT VENT CO2 gas into the room through any port
- Place all specimens in bag and then desufflate and turn off CO2 insufflation prior to removing specimens

Desufflating the abdomen at the end of the case:

- DO NOT VENT CO2 gas into the room through any port
- With AirSeal: lower the insufflation pressure to 5mmHg and run smoke evacuator. Or close insufflation and let the system pull any additional pneumo out, then press STOP
- Use laparoscopic suction with filter for any remaining pneumo

Further considerations for OR personnel:

- instruments need to be cleaned during the case and kept free of blood and body fluids
- keep trocar sites free of blood and keep clean
- Minimize Trendelenburg as much as possible (helps with ventilation of patient)