BECAUSE YOU’VE COME TO EXPECT EXCEPTIONAL FROM US.

The Valleylab™ Smoke Evacuation Pencil
EXCEPTIONAL PERFORMANCE

Advanced, streamlined functionality for confident, simple use
- Compact design and low-profile front end enhances visibility of the surgical field
- Transparent tube minimizes any obstruction of the blade’s tip or target tissue
- Stable blade attachment provides a steady approach and interaction with the tissue
- 360 degree swivel feature enables free and easy turning to minimize “drag” on the wrist
- ESU wire encapsulated within tubing improves cord management over the sterile field
- All-in-one, pre-assembled construction

Ergonomic enhancements for comfortable utilization
- Subtle texture on handle
- CUT/COAG button activation (modeled after the most popular ESU pencils)

Engineered for versatility to preserve surgeon choice
- Pencil can be fitted with almost any available blade (nonstick or standard options)
Smoke evacuation in the OR is strongly recommended by many healthcare authorities, including OSHA, JCAHO, NIOSH, and AORN. Although scientific consensus is lacking, the vital importance of smoke evacuation in the OR is well documented. With enhanced suction volume and almost 20% better flow rate than some other smoke-capture pencils on the market, the Valleylab™ smoke evacuation pencil provides enhanced visibility and improved air quality in the OR. Its adjustable capture port allows for easy and secure positioning at the optimum smoke-capture point.
Proven surgical smoke hazards for perioperative professionals and their patients

Surgical smoke as compared to cigarette smoke

Is 20 minutes a long time?

Is there broad-scope regulation mandating smoke capture in the OR?

FITTING THE PIECES TOGETHER

- Surgical smoke contains many irritant, carcinogenic and neurotoxic compounds (e.g., benzene, toluene, acrolein, furfural and formaldehyde)\(^6\)\(^,\)\(^7\)
- Furthermore, one study found furfural present in surgical smoke at a level 12 times higher than recommended occupational exposure limits\(^7\)
- (Surgical) smoke produces increased carboxyhemoglobin and methemoglobin levels in patients, which decreases oxygen-carrying capacity.\(^8\) Falsely elevated oxygen readings could result in unrecognized patient hypoxia\(^9\)

- The carbon monoxide generated during electrocautery can cause headaches and nausea and can be undetected by pulse oximetry. Surgical smoke and aerosols irritate the lungs and have a mutagenicity similar to that of cigarette smoke\(^10\)
- Surgical smoke has been shown to be as mutagenic as cigarette smoke. [As recorded in a plastic surgery theater over a 2-month period] the recorded daily average smoke produced was equivalent to 27 to 30 cigarettes\(^11\)

- Standard OR ventilation is ineffective at removing smoke directly where it is generated\(^11\)
- One study found particle concentration increased from a baseline of about 60,000 particles per cubic foot to about 1 million particles per cubic foot within 5 minutes after the electrosurgery unit was activated. They further documented that it took about 20 minutes for the OR ventilation to return the room to baseline levels\(^12\)
- No. However, we can point to other protective legislation in support of providing healthy, risk-free workplace and public environments

- OSHA can cite hospitals for not making an effort to control smoke emission in laser or electrosurgical procedures. The Joint Commission evaluates all clinical risks, not just obvious ones like wrong-site surgery, so the evaluation of the hazards associated with surgical smoke would be another area they could explore\(^3\)
- The Joint Commission Environment of Care Standard states, “The hospital minimizes risks associated with selecting, handling, storing, transporting, using, and disposing hazardous gases and vapors”\(^13\)
- Current (UK) legislation protects people in the workplace by making smoking in enclosed public and work places illegal. This legislation however does not protect those who work in operating theatres as it only applies to substances that can be smoked. The legal department at our hospital were unable to identify a case precedent of an employee taking legal action against their employer for not providing adequate surgical smoke extraction; however, in light of the above legislation this is a real possibility\(^11\)
Patient care is priority #1. As economic pressures increase, we share a responsibility to ensure quality while lowering costs. Creating the right balance—positive outcomes and exceptional performance at a fair price—creates success everyone can share.

A trusted name in electrosurgery

Medtronic electrosurgery is by your side every day in more than 100 million surgeries a year. For more than 40 years, our Valleylab™ brand has been synonymous with innovation and reliability. From a trusted name in electrosurgery comes a uniquely designed smoke evacuation pencil that’s comfortable, effective, and convenient to use. The Valleylab™ Smoke Evacuation Pencil delivers the performance, quality, and service you’ve come to expect from us.
Not only is the Valleylab™ Smoke Evacuation Pencil an exceptional stand-alone value, but switching from the competitor’s pencil enhances your cost-to-value advantages. Working within our broad electrosurgery and advanced energy portfolio allows you to realize potential cost savings and operational efficiencies.

• Your GPO-contracted facility is entitled to compliance cost savings
• Our electrosurgery portfolio has preferred status with many primary distributors, ensuring products will be available on demand
• You can reduce part numbers and minimize your number of suppliers

Further maximize your benefits—join the Medtronic System Standardization Program

• Free continuing education programs, biomed training and in-service videos
• Support hotlines for clinical information or tech assistance
• Loaner units available during equipment downtime

### References