



erbe
power your performance.

HEALTH HAZARD

SURGICAL SMOKE

The background of the entire graphic is a dark, atmospheric image of surgical smoke. Wisps of white and light grey smoke rise and swirl against a black background, creating a sense of movement and hazard. The smoke is most concentrated in the upper right and lower right areas, with lighter wisps drifting towards the left.

~1.2

*million clinical professionals are
exposed to surgical smoke in Europe.*

SURGICAL SMOKE IS OFTEN UNDERESTIMATED.

These expert associations warn against
surgical smoke


➡ AORN, EORNA, OSHA, JCAHO, NIOSH, TRGS

Denmark

➡ Protective law: evacuation as
close as possible to the source

Great Britain, Australia, New Zealand

➡ Guidance for protection of the
surgical team



Electrosurgery is an integral part in every operating room –

SURGICAL SMOKE IS NOT

A SAFE WORKING ENVIRONMENT WITH THE IES 3 SMOKE EVACUATION SYSTEM.

Nausea

FEELING FAINT

58.3%

OF CLINICAL PROFESSIONALS ARE BOTHERED BY THE SMELL.

Muscle weakness

THE ACTIVE CARBON BARRIER IN THE FILTER OF THE IES 3

REMOVES ODORS.

1g = 3 to 6
VAPORIZED
TISSUE CIGARETTES

98.6 %
OF SMOKE ELIMINATED

WITH EVACUATION 1CM DIRECTLY ABOVE THE SOURCE.

IRRITATION OF AIRWAYS

Odors

*Operation room ventilation systems are ineffective.
And face masks are insufficient.*

90% OF THE SMOKE PARTICLES ARE OF NANO-SIZE.

THE ULPA-15 FILTER REMOVES
99.9995%

OF THE 0.1 μ m PARTICLES IN THE OPERATING ROOM.

Aerosol

SMOKE

40

CHEMICAL SUBSTANCES

detected in the urine of a patient
who had undergone laparoscopy
without smoke evacuation.

SURGICAL SMOKE CONTAINS TOXIC, MUTAGENIC SUBSTANCES.

SMOKE EVACUATION PROTECTS
SURGICAL TEAM
+
PATIENT

PARTICLE SIZES

0.65 μm

Ultrasound surgery

0.3 μm

Laser surgery

0.1 μm

Electrosurgery



PROTECTION AGAINST CONTAMINATION WITH NANOPARTICLES

A SAFE WORK ENVIRONMENT
WITH THE IES 3 SMOKE EVACUATION SYSTEM.



HAZARD DETECTED. RISK AVERTED.



SMOKE.ERBE-MED.COM

For references, please visit smoke.erbe-med.com