



# Surgical Services - Controlling Exposure to Surgical Plume Procedure

Effective: 26 June 2017

## 1. Guiding Principles

Surgical plume presents a potential hazard to all staff who are present within the operating room when energy-based devices are operating and releasing plume into the environment.

## 2. Procedure

All theatre staff must be familiar with the smoke evacuation equipment; Smoke collection devices and high filtration masks for high risk procedures.

- The circulating nurse is, at the commencement of the surgical procedure, to ensure the capture devices are attached to the evacuation unit and that the settings adjusted according to the surgical procedure being performed i.e. laparoscopic, closed procedures.
- Surgical smoke is to be removed using a smoke evacuation system during open and laparoscopic procedures.
- A smoke evacuation unit is to be used; a corrugated evacuation tubing is to be attached to the filter of the evacuator.
- The sensor is to be attached to the diathermy cord and set to 'high' for general work, and 'low' for laparoscopic surgery. The evacuator will automatically turn off and on with the diathermy.
- Surgical smoke is to be evacuated throughout the laparoscopic procedure by using a laparoscopic smoke evacuation device.
- Standard precautions are to be used when disposing of used smoke filters, tubing and wands.
- Respiratory masks are also to be used during procedures that generate plume from high-risk procedures such as diathermy of warts.

## 3. Definitions

<b>Surgical Plume</b>	<p>Surgical plume contains smoke, tissue, viral, bacterial particles and a range of hazardous chemicals released into the environment during the use of energy based devices e.g. electro-surgery (diathermy), LASER.</p> <p>The only safe way to manage surgical plume is by the use of evacuation units which capture the plume at its source and transfer it to the evacuation unit.</p>
-----------------------	---

## 4. Roles And Responsibilities

The surgical team members are responsible for ensuring that the evacuation machine is used when electrosurgical devices are being used.

## 5. Compliance

All perioperative staff are to:

- comply with procedures related to the use of evacuation units and capture devices during surgical procedures when energy devices e.g. diathermy is being used
- communicate with the Occupational Safety and Health (OSH) representative and line manager when evacuation units are not be utilised when required.

Failure to comply with this policy may constitute a breach of the WA Health Code of Conduct (Code). The Code is part of the [Employment Policy Framework](#) issued pursuant to section 26 of the [Health Services Act 2016](#) (HSA) and is binding on all WACHS staff which for this purpose includes trainees, students, volunteers, researchers, contractors for service (including all visiting health professionals and agency staff) and persons delivering training or education within WACHS.

WACHS staff are reminded that compliance with all policies is mandatory.

## 6. Evaluation

Monitoring of compliance with this document is to be carried out by the Occupational Safety Health (OSH) representative for the perioperative department using completed hazard or risk forms.

## 7. Standards

- [National Safety and Quality Health Care Standards](#) 1.1.7, 3.3.7
- [EQulPNational Standards](#) 11.5.1

## 8. References

ACORN Management of Surgical Smoke Toolkit

[Buffalo Filter: Education and Articles](#)

[Buffalo Filter: About Surgical Smoke](#)

**This document can be made available in alternative formats  
on request for a person with a disability**

<b>Contact:</b>	CNM Theatre / CSSD (A. Annear)	<b>TRIM Record #</b>	ED-CO-14-89078
<b>Directorate:</b>	Nursing and Midwifery Services	<b>Date Published:</b>	3 July 2017
<b>Version:</b>	2.00		

Copyright to this material is vested in the State of Western Australia unless otherwise indicated. Apart from any fair dealing for the purposes of private study, research, criticism or review, as permitted under the provisions of the *Copyright Act 1968*, no part may be reproduced or re-used for any purposes whatsoever without written permission of the State of Western Australia.