

“Scalpel Safety”: Will Surgeons Ever Willingly Comply?

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1 Why do so many surgeons resist?

Surveys in the United States and Australia found over 95% of surgeons do not like using safety scalpels, claiming they compromise patient safety.

Surgeons argue that safety scalpels feel too light, don't fit in their hands well and feel clumsy to use. Others note that their retractable shields and other safety mechanisms obstruct the view of the blade and make them unsuitable for deeper incisions.

2 What is the evidence for using Safety Scalpels?

ASERNIP-S (Australian Safety and Efficacy Register of New Interventional Procedures–Surgical) found no evidence of safety, efficacy or effectiveness of safety scalpels in the international literature.¹

A review of EPINET (Exposure Prevention Information Network) data from 2003 showed the frequency of injury from safety scalpels was up to four times higher than from traditional reusable scalpels.²

Fuentes, et al, found that the combination of a single-handed scalpel blade remover and a hands-free passing technique (HFPT) was up to five times safer than a safety scalpel.³

3 Safety Thinking has changed

Originally, guidelines were framed around Engineered Safety Injury Prevention Devices (ESIP). A more practical classification would be “Active vs. Passive” safety devices. Passive devices are superior because they are automatically activated (e.g. spring loaded safety syringe). Active devices (e.g. safety scalpels) are ones requiring the user to manually activate the safety feature. CDC data from 1993 to 1995 showed that early “active” safety devices were not correctly used in up to 90% of cases.⁴

4 What is “Scalpel Safety”?

The term “Scalpel Safety” was coined to highlight the lack of proof that safety scalpels (a misnomer in its own right) are safe. The new term highlights the need for clinicians to be aware that they have a choice of safety devices to protect them from scalpel cuts.

With this choice operating room (OR) staff can now find the optimal balance between patient safety and staff safety.³

5 New Regulations

The concept of “Scalpel Safety” led to OSHA publishing new Standard Interpretations of the bloodborne pathogens guidelines. The 2005 amendment stated, “blade removal must be accomplished through the use of a mechanical device or a one-handed technique.” The 2008 amendment, they stated, “Using fingers to remove a used scalpel blade does not meet the requirements of the standard.” “Employees are expected to consider and use safer and more effective measures than hemostats when feasible.”⁵

6 Have you worked around your surgeon before?

Using a single-handed scalpel blade remover makes the user OSHA compliant. So the ultimate decision on which safety device to use needs to be tailored to the individual clinical scenario.

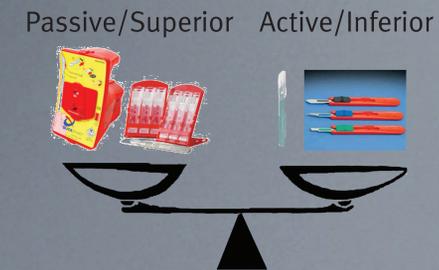
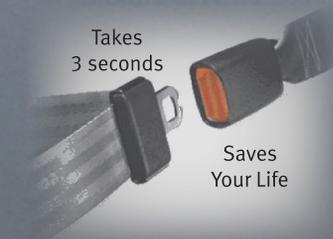


Fig 2. ‘Scalpel Safety’: Both Choices are OSHA Compliant



Prevention is Better than a Cure

Conflict of Interest

Dr Sinnott is a cofounder of Quicksmart Pty Ltd

Acknowledgement

Figures 1 and 2 are adapted from reference #3 with permission from IOS press.

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Passive/Automatic Active/Manual

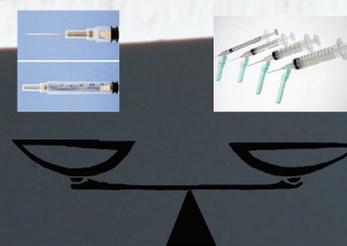


Fig 1. Passive(Automatic) vs Active (Manual) Safety Devices