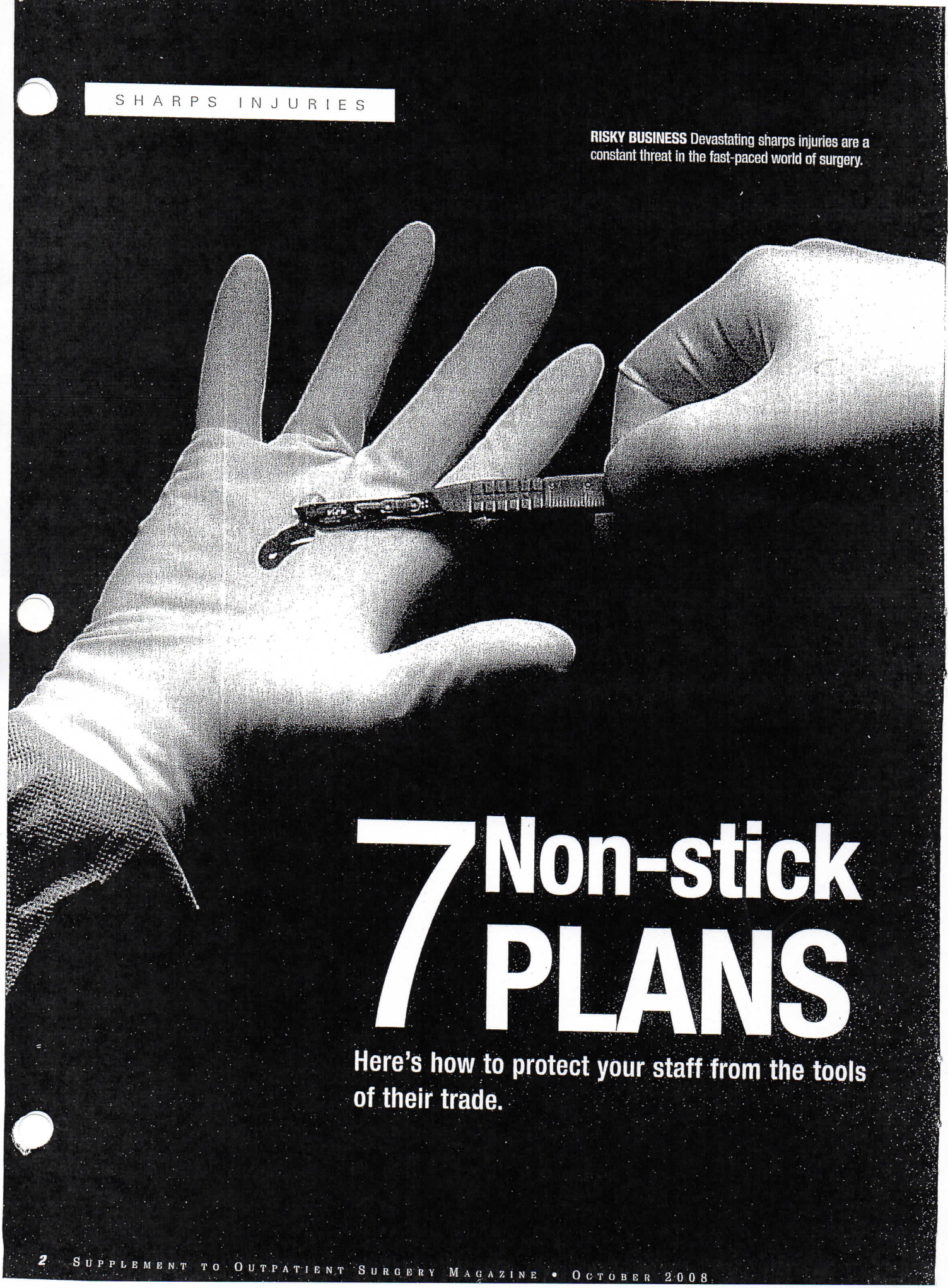


RISKY BUSINESS Devastating sharps injuries are a constant threat in the fast-paced world of surgery.

7 Non-stick PLANS

Here's how to protect your staff from the tools of their trade.

Preventing sharps injuries and exposures in the hazardous operating room environment is challenging. Here are seven practical tips you can employ to protect your staff.

1. Understand the risks. The majority of scalpel blade injuries occur when sharps are passed. During surgery itself, the thumb and index finger of the surgeon's non-dominant hand are most at risk for scalpel and suture needle injuries, followed by his middle finger, the other two fingers, the palm and the back of his hand. A surgeon's non-dominant hand takes the brunt of sharps injuries because it's often used as a backstop or guide to protect adjacent structures from the path of the scalpel or suture needle. No-touch techniques should be substituted for these hazardous behavior patterns. While suture needles and scalpels are to blame for most OR sharps injuries, don't ignore the potential danger in handling other instruments, including laparoscopy trocars, orthopedic drill bits and screws, needlepoint cautery tips, sharp-pointed scissors and forceps, skin hooks and towel clips.

2. Recognize when you're at risk. Knowing when you're at risk for sharps injuries will tell you when to take necessary precautions.

- **Suture injuries.** These often occur when the surgeon loads and repositions the needle in the holder, passes the needle from hand to hand, sutures while using his non-dominant hand's fingers to hold tissue or guide the needle and sews back toward himself or his assistant. Injuries can also occur when the suture needle remains in the operative field when not in use, is attached to the suture during tying or placed in an overfilled or poorly located sharps container.

Consider replacing sharp suture needles with blunt options. They eliminate suture-related injuries and reduce instances of blood contact resulting from glove perforations. Also consider other closing options currently on the market, including single-use suturing devices that act like sewing machines and place stitches with the press of a button. The devices eliminate the risk of suture needle sticks and potentially fatal bloodborne infections.

- **Scalpel injuries.** These are likely to take place when disposable blades are attached to or removed from scalpel handles, during hand-to-hand passing, when a surgeon uses his non-dominant hand to hold tissue during cutting and when a surgeon cuts toward himself or his assistant. Like suture needles, scalpels can also cause harm if they are left in the operative field when not in use or placed in an overfilled sharps container.

Use verbal warnings to announce the movement of sharps and keep an eye on all sharps in use until they are returned to the neutral zone.

I'm sure you're familiar with the difficulty of getting surgeons to use safety scalpels. My advice to you: keep trying. For starters, OSHA requires that you trial the latest safety devices. But also keep in mind that several manufacturers are working hard to develop products worthy of a second look. Design options include retractable blades, a shield that slides over the scalpel blade and traditional scalpel handles with attachable, protected blades.

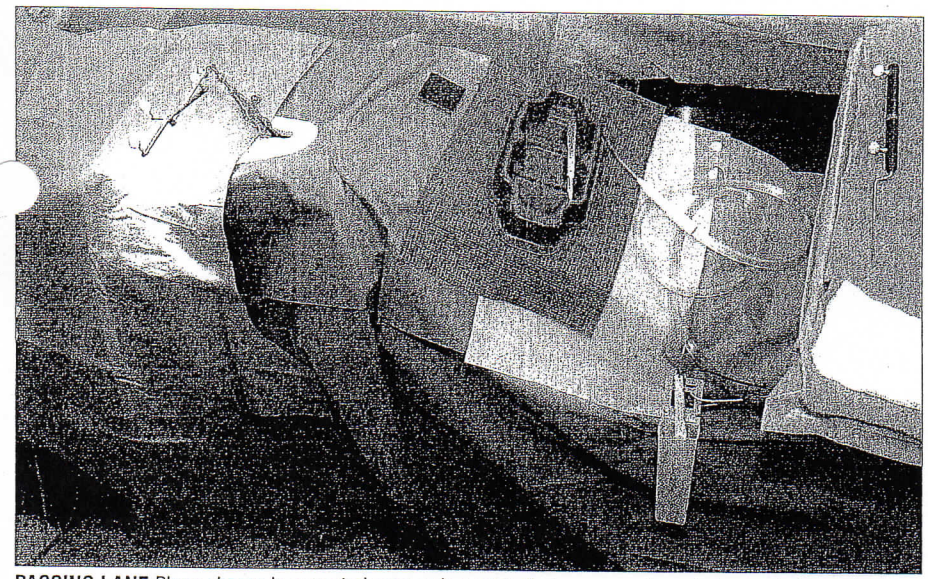
When trialing a safety scalpel, look for a few of these helpful design features: spring-loaded blades that avoid partial retraction, one-handed activation and retraction, dual-button design to avoid accidental retraction, weighted models for improved surgeon feel, high-quality blades for precision cutting, a finger stabilizer for both right-handed and left-handed surgeons, a compact design and audible, visual permanent locking for safe disposal.

Keep in mind that scalpel blades still pose a threat during disposal. Removing scalpel blades from their reusable holders using your hands or forceps is a risky proposition that causes many scalpel-related injuries. Luckily, several types of products ensure the safe removal and disposal of scalpel blades.

The simplest, a hand-held blade remover, covers

and holds the blade in one hand while the handle is removed and pulled away by the other. Several reusable scalpel systems eject used blades into a blade counter or sharps container with the push of a button. Another product removes scalpel blades when nurses and techs insert them into the front of the device. The device removes the blade, which falls safely into a contained storage container.

3. Use hands-free passing. The hands-free passing technique ensures surgeons and nurses never touch instruments at the same time. Research demonstrates a dramatic drop in sharps injuries when hands-free passing is employed, and OSHA will fine facilities that don't use a safe (neutral) zone, yet a significant number of facilities still pass instruments by hand.



PASSING LANE Place sharps in a neutral zone using controlled movements and clear verbal warnings.

Now that you know how and when sharps can injure in the OR, the benefits of instituting a hands-free passing policy in your facility should be obvious.

Use a passing tray to exchange any instrument sharp enough to puncture a glove. Trays should be large enough to contain all sharps used during a case, sturdy enough not to jostle or overturn if bumped and mobile enough for easy transfer into and out of the sterile field. Avoid using kidney basins as a neutral zone; items are hard to pick up — hands end up inside, in close proximity to the sharps — and the basins tend to tip easily.

4. Alert surgeons and staff. Place an instrument in the neutral zone with the handle toward the surgeon, alerting him of its presence by saying "scalpel" or "sharp." After using the instrument, the surgeon should employ the same passing technique and verbal alert when returning it to the neutral tray. All movements should be controlled and clearly announced. When not in use, return sharp instruments to the Mayo stand, away from the incision site.

5. Avoid these common mistakes. To many, sharps safety is a no-brainer, an irrefutable elementary step. So why do sharps injuries still occur? Diligent professionals let their concentration slip for a split-second, and basic safety precautions are overlooked. Remind yourself and others to focus — truly focus — when handling sharps in the OR. Review and avoid these common mistakes:

- Never anticipate or assume the movements of surgeons, scrub techs or nurses. Wait until you receive verbal notification that instruments have been placed in the neutral zone before acting.
- Always use verbal warnings to announce the movement of sharps.
- Avoid unanticipated sponging of tissue when the surgeon is using sharps.
- Keep an eye on all sharps in use until they are returned to the neutral zone.

6. Consider laparoscopic safety. Laparoscopic instruments can be too long to place safely in a neutral zone. Exchange these instruments handle first, with the tip pointed down. Use shielded trocars and needle systems to aspirate

whenever possible.

Most surgeons use needle syringes to deliver anesthetic to the port site. That practice results in less pain for the patient, decreased recovery times in PACU and cost savings for the facility. The method also creates the potential for needlestick injuries. Consider using trocars that eliminate the risk of needle exposure during administration of pre-procedure anesthetics. Surgeons insert a loaded syringe at the top of these trocars to inject the medication, then the medication filters through the trocar into the surrounding tissue and remains between the peritoneum and the skin.

At the end of laparoscopic cases the long, sharp and contaminated instruments must be disposed of properly. Several companies manufacture large sharps containers designed specifically for laparoscopic instruments.

7. Other ways to close?

Take a look at some of the new tissue-sealing technologies, including taping systems and "synthetic superglues." These products supplement or replace traditional methods of wound closure, eliminating risks associated with handling suture needles. They also help avoid local anesthetic injections for outpatients, leading to increased patient satisfaction and less needle handling by OR staff. **OSM**

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