During any spinal surgery, the ability to create and maintain a sterile field throughout the surgical procedure is considered a necessity. Yet, multiple studies have demonstrated a significant failure rate in terms of achieving this goal. There are breeches in sterility that are readily apparent and thus immediately corrected. Examples: A surgeon inadvertently touches a nonsterile object and immediately changes gloves or an OR team member's glove sustains a large rip and is immediately changed.

But what about less apparent or unrecognized breeches in sterility? Specifically, what is the incidence of small unrecognized tears or perforations of surgical gloves during a surgical procedure? The answer is alarmingly high with studies demonstrating that at least one member of the surgical team sustains a small glove tear or glove perforation in 10 - 60% of all surgical cases!

Though there are multiple variables that increase the incidence, the three most obvious are: type of case, length of the case and what the OR team must handle or manipulate in any given case. Spinal surgery and particularly spinal fusions are in general long cases that require the OR team to handle and manipulate an array of sharp instruments (ronguers, etc.), implants (pedicle screws, rods, etc.) as well as bone removed from the patient. Unfortunately, little can be done to change the type of case or the length of time that a procedure takes to perform. However, what the OR team handles can be altered. In fact, the term "no touch technique" has been coined to describe methods that minimize intraoperative contact with sharp instruments, sharp materials (suture, needles, implants, etc.) and tissue – more specifically in spinal surgery- BONE.

In an effort to increase safety, hospitals discourage the recapping of needles used for injections. In fact, in most hospitals, needles used for injections are manufactured in such a way that there is no longer a removable cap – except in the OR -- where injection needles are still available with removable caps. In the OR, there are many recurring practices that clearly pose a safety concern. Prime examples are spinal fusion cases where sharp bone is manually removed from sharp ronguers with the only barrier to contamination being surgical gloves!

It is not a mystery why the incidence of at least one breech in sterility for any given spinal surgery exceeds 60%.

In is with these facts in mind that the HBC was conceived.

Hyper-Linked Clinical Papers specific to Promoting Safety and the HBC.

1. *Commonality of glove perforation Intra-op, Single/Double glove study.*
2. *Incidence of Glove Perforations on Orthopedic Cases.*
3. *Cross-section of glove perforation in Arthroplasty Cases.*
4. *Intraoperative Glove Perforation Study.*