

# ClearCount Technology Comparison

	RFID	Bar-Code	EAS (RF)
<b>Overview</b>	<ul style="list-style-type: none"> <li>• Sponge Counting, Detection and Electronic Records System.</li> <li>• Utilizes small, passive RFID tags embedded in surgical sponges.</li> <li>• Tags contain tiny microchips and no battery.</li> <li>• Tags do not transmit any digital information until they are within a predetermined range of the reader's antenna.</li> <li>• Once scanned in, data from each sponge is validated and displayed on monitor.</li> <li>• Sponges are automatically scanned out when discarded into plastic lined receptacle.</li> <li>• Hand-held wand equipped with LEDs, and audible and visual indicators.</li> </ul>	<ul style="list-style-type: none"> <li>• Sponge Counting and Documentation System.</li> <li>• Utilizes sponges labeled with individual serial numbers embedded in a data matrix bar code.</li> <li>• Bar codes are scanned by a reader to record codes during counts.</li> </ul>	<ul style="list-style-type: none"> <li>• Sponge Detection Only System.</li> <li>• Utilizes surgical sponges and gauze tagged with an RF sensor.</li> <li>• Non-Identification based tags.</li> <li>• Uses disposable-quality wand to detect tag frequency.</li> </ul>
<b>Pre Surgery</b>	<ul style="list-style-type: none"> <li>• Correct number of sponges with packaging verified before leaving manufacturer.</li> <li>• System confirms tag functionality before use</li> <li>• System confirms quality before use</li> <li>• Reduces the chance of miscounts.</li> <li>• Minimizes time spent on defective packs.</li> </ul>	<ul style="list-style-type: none"> <li>• Not suitable for validating the number of items in a sealed package.</li> </ul>	<ul style="list-style-type: none"> <li>• Not suitable for validating the number of items in a sealed package.</li> </ul>

<p><b>In Count</b></p>	<ul style="list-style-type: none"> <li>• Enables the system to confirm that all tags in a pack of sponges are functional.</li> <li>• The system reads and records a unique identification number for each sponge.</li> <li>• Verifies the proper quantity of items in the pack.</li> <li>• All validation steps are performed within one second of presenting a pack of sponges to the device regardless of orientation.</li> <li>• Starting inventory is highly reliable.</li> <li>• The system meets and exceeds AORN guidelines.</li> </ul>	<ul style="list-style-type: none"> <li>• No device-verification of quantity before use.</li> <li>• Relies on an assumed count as starting inventory since individual sponges are not scanned.</li> <li>• The functionality of each barcode is not checked prior to surgery.</li> <li>• Master bar code may not reflect sponges in pack (mixed sponges cause mid-case count errors).</li> </ul>	<ul style="list-style-type: none"> <li>• No functionality check before use.</li> <li>• No device-verification of quantity before use.</li> <li>• No assistance for count.</li> </ul>
<p><b>Out Count</b></p>	<ul style="list-style-type: none"> <li>• The system counts any number of sponges discarded in receptacle regardless of orientation.</li> <li>• Provides a 1 to 1 reconciliation by matching unique ID numbers to "count in" sponges.</li> <li>• Device performs an inventory of receptacle 8X per second, averaging over 80,000 inventory counts per procedure.</li> <li>• Reduces chance of miscount.</li> <li>• No separation or orientation of sponges required.</li> <li>• Fully supportive / compatible with sponge bags.</li> </ul>	<ul style="list-style-type: none"> <li>• Sponges are counted out of the procedure manually, one at a time.</li> <li>• The barcode must be wiped clean and oriented properly with the line-of-sight reader.</li> <li>• Multiple (redundant) reads are not part of the barcode process.</li> <li>• Results in a more labor intensive count than manual counting.</li> <li>• Clinically proven to increase count time and miscounts.</li> </ul>	<ul style="list-style-type: none"> <li>• Provides no method for counting sponges out of a surgical procedure.</li> </ul>

<p><b>Scanning, Detection</b></p>	<ul style="list-style-type: none"> <li>• Provides a two part check-and-balance patient scanning solution consisting of the SmartWand-DTX™ working in conjunction with a SmartTag™.</li> <li>• Feedback that the SmartWand is functional and reading through the patient provides optimal safety.</li> <li>• When items are detected, the quantity and description of items are displayed.</li> <li>• Faster and more cost-effective than the current practice of X-Ray detection and there is no interpretation required.</li> </ul>	<ul style="list-style-type: none"> <li>• Provides no method for scanning the patient in the event of a non-reconciliation.</li> <li>• Cannot locate missing sponges in patients or O.R.</li> <li>• Fully relies on X-ray to locate missing sponges in patients.</li> </ul>	<ul style="list-style-type: none"> <li>• Not capable of providing users with feedback of wand functionality or read range.</li> <li>• When items are detected, EAS technology is not capable of identifying the quantity or type.</li> </ul>
<p><b>Closing</b></p>	<ul style="list-style-type: none"> <li>• The SmartSponge System software enforces 100% compliance by requiring that counts are reconciled before a case can be ended.</li> <li>• An Administrator-level override is required if a case must be ended with an unreconciled count.</li> <li>• Reduces risk of ending surgery with a retained sponge.</li> <li>• Enforces standardized sponge counting practices.</li> <li>• Wand may be used to create electronic final count verification.</li> </ul>	<ul style="list-style-type: none"> <li>• In the event of a missing sponge, closing is delayed for excess search time and X-ray.</li> </ul>	<ul style="list-style-type: none"> <li>• Provides no method for ensuring counts are reconciled before the case is ended.</li> </ul>