

# THE ARTA-IAHTM LIFE CYCLE ASSESSMENT OF SURGICAL GOWNS REUSABLE & DISPOSABLE



Read the complete study in the March 2020 Issue of the AORN Journal

## SURGICAL GOWN LIFE CYCLE ENVIRONMENTAL RESULTS



Surgical gown life cycle results continue the conclusions from six other reusable/disposable gown/coverall studies that show reusables provide a significant improvement in energy, environmental footprint, blue water\*, and energy-associated emissions, and energy-associated emissions.

\*Blue water represents water that is used and not returned to the source, and thus represents depletion of a fresh water source.

## WHAT IS A SURGICAL GOWN LIFE CYCLE ASSESSMENT?



Surgical gowns were studied thoroughly from material extraction from the earth, to the manufacture of the gown product, to use including laundry and sterilization, to final end-of-life. This scope and the results emphasize transparent, science-based life cycle assessment.

## BONUS: MEDICAL INSTRUMENT RECOVERY

Medical laundry operations find and return a significant amount of lost surgical instruments to healthcare facilities. The instruments are often found wrapped in surgical drapes and would otherwise have been lost to a landfill. The value of these items was found (in other studies) to be in the thousands to tens of thousands of dollars per year.



## REUSABLE SURGICAL GOWNS DRAMATICALLY REDUCE ENVIRONMENTAL FOOTPRINT

When you choose reusable surgical gowns instead of disposable alternatives you achieve:



**64%** Reduction in natural resource energy consumption

**66%** Reduction in greenhouse gas emissions (measured as CO2 eq emissions)

**87%** Reduction in total water consumed (blue water\*)

**84%-87%** Reduction in solid waste generation at healthcare facility



End users can count these improvements as a credit toward improving their sustainability programs.

Study funded by the ARTA Life Cycle Assessment Committee

The American Reusable Textile Association (ARTA) mission is to promote greater appreciation for reusable textiles.  
www.ARTA1.com