



Ecological Stewardship

NEWS

"understanding our impact... creating positive change"



London Health Sciences Centre

Issue 08
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ELEMENTS



"We hope that you find something useful to take from Elements and something to give back"

This issue

HOT TOPICS AT LHSC

Engineering Services

Disposable VS Reusable Styrofoam VS Alternative Healthy Food in Healthcare Recyclable at LHSC?

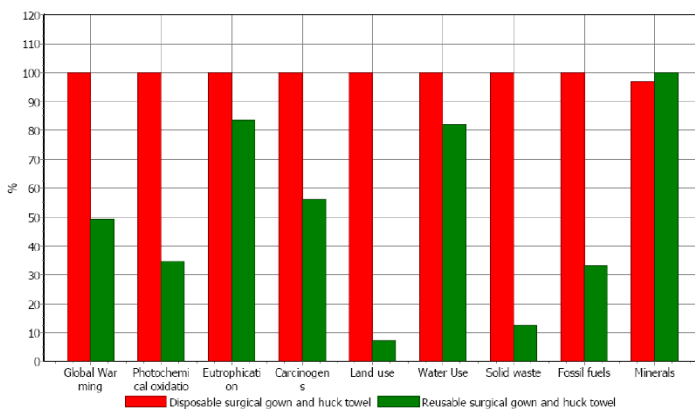


Disposable VS Reusable

Enough questions have surfaced around the topic of disposable VS reusable isolation gowns to warrant some discussion. According to our purchasing group and our linen service company, the cost difference is not significant enough to sway a decision either way. In both cases there are products available to meet current CSA standards for protection and infection control. The remaining factors to consider when making a decision between the two are comfort, convenience, and environment.



Some of the concerns around reusable cloth gowns are behavioural. Cloth gowns being used more than one time or being used as warming blankets are two of these concerns. If too many gowns are being placed into the linen bin, bags become too heavy for transport. Keeping too many gowns on the floor at one time may cause space issues. Switching to disposable gowns may help to address some of these concerns however, what is the environmental impact of changing gowns instead of changing our behaviour to suit the reusable gowns?



The difference in environmental impact results largely from the difference in the life cycle of the gowns and hence, the **manufacturing impact** associated with each. The reusable gown results in one manufacture for an average of 125 uses while the disposable gown results in one manufacture for each use. The graph below was taken from a study completed by the Centre of Design at RMIT University under ISO 14044, showing

that disposable gowns (red) have a much larger environmental impact than reusable gowns (green) with respect to global warming, land, water, solid waste, carcinogens and fossil fuels.

“If LHSC were to move to a disposable isolation gown, we would contribute 48,135 kg of waste to our landfills each year – based on usage, LHSC could fill the entire Westminster Tower at Victoria Hospital every two years with isolation gowns”

It’s not the goal of the Ecological Stewardship team to make environment the first priority in every decision however, please consider the environmental impact of your choices and if it is possible to modify our behaviour to support the reusable gowns then we have made one more positive step toward a healthier environment and healthier living.

Styrofoam VS Alternatives

One of the other employee concerns at LHSC is the use of Styrofoam. Many are questioning as to why Styrofoam isn't being eliminated from the hospital as an environmental directive. When considering the impact of Styrofoam during manufacturing, use, and disposal, each presents a unique set of environmental and health related issues.

Why use it? Styrofoam is cheaper to produce and purchase than an alternative cup or food container. In addition, Styrofoam is selected because it holds liquid well, a requirement for patient water, liquid medicines, wet food containers etc. A pure paper product would be at risk of being crushed if held to firmly or leaking over time. Having a wax coating in the containers to prevent leaking eliminates the potential to recycle the product. Without a composting program, this means the wax paper cups and food containers would also go to landfill. Both polystyrene and paper will break down in time although paper lasts surprising longer in a landfill environment than most people think. Paper will however, biodegrade over time. There are no known organisms with enzymes that will break down polystyrene.

In addition to the byproducts of manufacturing Styrofoam, one thing to be concerned with when selecting Styrofoam as a food or drink container is Styrene migration, from the container to the food or drink contained within. The higher the fat content and temperature in the contained material, the higher the migration potential. Exposure to Styrene could have negative health effects as reported by the Environmental Protection Agency (EPA).



“Acute (short-term) exposure to styrene in humans results in mucous membrane and eye irritation, and gastrointestinal effects. Chronic (long-term) exposure to styrene in humans results in effects on the central nervous system (CNS), such as headache, fatigue, weakness, and depression, CNS dysfunction, hearing loss, and peripheral neuropathy. Human studies are inconclusive on the reproductive and developmental effects of styrene. EPA has not given a formal carcinogen classification to styrene.”

LHSC's ecological stewardship team is currently working with a group of university students to understand how and where Styrofoam is being used in the hospital and what opportunity we have to phase it out. Some areas have taken it upon themselves to make a switch and some employees are choosing to use a reusable drinking container however, there still **over 460,000 thirty two ounce Styrofoam cups** alone being used at LHSC each year. As we continue to investigate the options for alternative products and find solutions for reducing the use of Styrofoam, cooperation and feedback from staff will be greatly appreciated.

Is **Healthy Food** a Part of Healthcare?



What's the first thing that comes to your mind when somebody says "Hospital Food"? Should we be concerned as to why this term brings about the impression it does? How did hospital food suddenly become the brunt of the joke?

According to Chef Michael Smith, one of the reasons restaurant chefs may lack in this area is because they don't have a personal connection to the customer. What connection do we have with ours?

More and more we're starting to see the topic of food surface in healthcare as both a direct health issue and an environmental health related issue. Food is another important item to consider when looking at healthcare in the broader sense of supporting healthy living in addition to treating illness. Are we able to treat food and its production and distribution as preventative medicine that helps to both protect the health of our staff, patients, and visitors and act as a catalyst for the healing process of those we are treating?

Did you know that the average distance a food item travels to the Region of Waterloo is 2,400 km?

Could we work with local farmers and farmers markets to increase the availability of locally-sourced food? A recent study done for the Region of Waterloo showed that due to the long distance travel, 1kg of food has 1.3kg of carbon dioxide emissions associated with it. Part of correcting this carbon intensive process would be to change our menu so that we could provide food that is in season locally and avoid purchasing from other provinces or countries to acquire out of season food.

Perhaps we could make every effort to source out organic food and make sure our food purchasing policy demands that we are supplied food without synthetic pesticides and hormones or antibiotics given to animals in the absence of diagnosed disease. Perhaps we could select food that supports farmer health and welfare, and ecologically protective and restorative agriculture.

The ownership of any such change does not belong to a single person or department alone. Budgetary adjustments may be required. Personal food choices may need to change. Other challenges will need to be overcome however, wouldn't it be nice to have people tell you that the best food around is at the Hospital?

What is **Recyclable** at LHSC?

Our waste vendor, Waste Management, offers a two stream recycling process: Mixed paper and commingled. The effectiveness of our waste diversion program relies on all of us to put the right waste in the right place. Throwing you waste in the wrong bin will contaminate the entire bin and risk having it end up in the wrong waste stream. We are working to have recycling be as convenient as possible at the hospital and we need your help to make sure our recyclables don't end up in our landfill. Please take a moment and familiarize yourself with the opportunity that you have to help us divert our waste from landfill.

Paper only recycling container

- √ **COMPUTER PAPER**
- √ **WHITE/COLOURED PAPER**
- √ **PHOTOCOPY PAPER**
- √ **FORMS, FILES, REPORTS**
- √ **ENVELOPES**
- √ **POST-IT NOTES**
- √ **SHREDDED PAPER**
- √ **FILE FOLDERS**
- √ **NEWSPAPER & INSERTS**
- √ **CONSTRUCTION PAPER**
- √ **MAGAZINES**
- √ **TELEPHONE DIRECTORIES**
- √ **BROCHURES**
- √ **Misc. OFFICE PAPER**

Do Not Include: carbon paper, facial tissue, plastic of any kind, food wrappers (treated paper), lunch bags, courier envelopes, paper towels

Comingled

- √ **SOFT DRINK CANS**
- √ **GLASS BOTTLES & JARS**
- √ **PET PLASTIC BOTTLES**
- √ **JUICE & FOOD CANS**
- √ **PLASTIC (#1 & #2)**



Do Not Include: cardboard or garbage of any kind