

At the Clean Green Demo, Terri Glaberson introduced CoolMom. Sara Hanson introduced <http://www.holidaytouch.com/bridge-park/bridge-park-home/> (our host). Laura Elflin discussed some of the global warming impacts of conventional cleaning products. Casey Coulombe of the [American Lung Association of Washington](#) (ALAW) discussed respiratory issues and asthma triggers found in homes and ALAW's [home assessment program](#). Michelle Gaither discussed impacts and how to research information on off-the-shelf cleaning products. Janice Sullivan introduced her green cleaning service, displayed a simple do-it-yourself furniture polish, and then everyone decamped to tables to mix up their own cleaning ingredients.

Laura mentioned four main ways in which green cleaning can help affect climate change:

1. Reducing packaging
2. Reducing waste in the landfill and recycling emissions
3. Reducing carbon emissions during product manufacturing, packaging and distribution (some products are up to 80% water - which is being transported long distances)
4. Reducing consumption

By buying in bulk (and concentrate when possible), like large containers of vinegar, soda, Castile soap, reduces and/or eliminates the need for smaller and one time use products that tend to be more expensive, creates more waste, and uses up more resources to produce. By buying in bulk you not only save money but also reduce the number of times you need to return to the store for these.

The main speaker, Michelle Gaither, CoolMom and Environmental Scientist. When Michelle became a mom ~11 yrs. ago, she grew increasingly concerned about cleaning products and chemicals in the home, and began researching how cleaning products impacted the health of her and her family. Notes from this lecture follow:

**EXPOSURE:** Ways exposed – inhale it, absorb it (skin, eyes), eat it. Children are curious, and can confuse look-a-like bottles of cleaners with food products, so it is important to keep them up high and out of reach of young hands.

It is also important to keep in mind that is not only how much exposure we receive at one time – or one cleaning – but repeat exposure. This can be even more complicated when we think about combination of exposures by different cleaners. And, some chemicals can build up in our homes, and in our bodies over time.

**LABELING:** Cleaning product manufacturers are not required to disclose ingredients and most do not, on the label itself. Here is a good site ([Household Products Database](#)) for looking up contents of many cleaners and other household products, and their affects.

Despite no ingredient labeling, manufacturers are required to put a “signal word” (shown below) based on the hazard of the product. The rating is based on the "dose" to a 180 pound man swallowing, inhaling or absorbing a product:

- Caution – mild/moderate (1 oz – pint harmful or fatal)
- Warning – moderate (1 tsp – 1 oz harmful or fatal)

- Danger – flammable, corrosive or toxic, one tsp to as low as a taste could be fatal
- Poison – toxic

The old saying goes “**The dose makes the poison**”. Since these signal words are defined based on a 180-pound man, a lower dose could be more harmful to an infant, child, or smaller woman.

## **GREENWASHING:**

The word natural. Green. Earth-friendly. Eco-... bring to mind something that would be devoid of toxins. However, these words are not legally defined, and therefore may mean nothing, really.

Claims that a product is "biodegradable" simply means that the materials will break down and return to nature – at some point in the future. The exception is that the state of California has a law defining "biodegradable" if a product will be labeled as such. Otherwise, there is no legally defined statement of the timeframe or conditions. Something could truly be called biodegradable – even if it takes years to break down. The Federal Trade Commission’s definition for biodegradable is “within a reasonably short time after customary disposal”. This leaves a lot of wiggle room. Even if the product is properly labeled – and ALL of the ingredients do break down – some may still not be good for you or the environment during the time they go down the drain – or even after they have fully degraded – this becomes very scientifically complicated. So, while biodegradable might mean a product is ok – it is not guaranteeing ANYTHING.

In fact, certain popular products, even if they seem really green”, contain a chemical like 2-butoxyethanol, a solvent that has been linked to blood damage, reproductive harm, and found to cause cancer in animal testing. Other popular products –green claims - still contain ingredients you don’t want, like sodium lauryl sulfate, nonphenolethoxolates, and synthetic fragrances.

The best thing to do is do a little research – experiment with and perfect make your own products – so you know exactly what’s in them.

## **MINIMIZE USE OF CLEANING CHEMICALS**

- NEVER MIX off the shelf cleaning products
- No brainer: KEEP OUT OF CHILDREN'S REACH
- THINK OF ways to minimize use of cleaners, e.g.,
  - a drain strainer in shower to catch hair (avoids need for caustic drain cleaner)
  - have kids wear clothes more than once before throwing in laundry
  - do a little spot cleaning with water if it means another day of wear

- use produce nets (like those found around bunches of green beans) as scrubbers
- stop wearing (and buying) dry-cleanable clothing, cleaned with unhealthy solvents
- a foil liner at the bottom of the oven (under the burners) to reduce oven cleaning frequency

**A FEW INGREDIENTS & PRODUCT TYPES TO AVOID: (there are many more, but we can't cover it all in one night)**

### **1) Volatiles**

#### **Artificial Fragrances = phthalates**

Phthalates are hormone disruptors and respiratory irritants, also used in plastics to soften them (e.g., the rubber ducky, and other polyvinyl chloride products like shower curtains). If a cleaning product is labeled with ingredients, the words to watch out for are "perfume", "fragrance", "parfum". This is why non-toxic cleaning recipes and truly greener products will be fragrance-free, or use plant-based scents such as those in the essential oils we will use tonight.

Examples of products typically containing fragrances:

- Laundry stain removers, scented detergents, dryer sheets & fabric softeners. (Tip: use white (grain-distilled) vinegar in wash as softener.
- Air fresheners - may contain synthetic fragrances, but also other volatile organic compounds (VOCs) such as solvents, as well as benzene and formaldehyde, both known carcinogens.
- Chlorinated compounds (resulting from reactions with chlorine)  
Ammonia (respiratory irritant)

### **2) Fine airborne particles**

Of special concern are aerosol sprays, household dust, and even some pump sprays set to spray at a fine setting. These particles are easily absorbed via the lungs. Powder cleansers containing crystalline silica that can release into the air during use (also think of that "puff" that spews out as you set the canister down). (Although the percent of silica in the product is small, this is a respiratory concern).

#### **Tips:**

- Dust with a wet mop/wet cloth (NO sprays necessary!)

- Squirt a pump sprayer directly onto the cleaning cloth from about 1" away, then clean with the cloth, rather than waste a lot of cleaner by spraying much of it into the air.

### 3) Antibacterial soaps (with triclosan or triclocarban)

Research showing overuse of antibacterials and disinfectants are contributing to 'superbugs'. Triclosan is found in worrisome quantities in our waterways. When used with chlorinated tap water, triclosan reacts to form a small amount of chloroform. And, not all bacteria are bad!

#### **Tips:**

- Avoid antibacterial soaps, pre-treated sponges and mops, (toothpaste too!)
- Studies show good hand washing with regular soap is equally effective against bacteria.
- If you use hand sanitizer, find a product that is fragrance-free and does not contain benzylkonium chloride.

Michelle is not saying to never use a disinfectant, but to use it properly and when truly needed.

### **HOW TO RESEARCH YOUR CURRENT CLEANING PRODUCTS:**

- Search on your product brand name in the Household Products Database ([www.householdproducts.nlm.nih.gov](http://www.householdproducts.nlm.nih.gov))
- Look for your products and ingredients of concern in the Women's Voices for the Earth - Safe Cleaning Campaign Reports at <http://www.womenandenvironment.org/campaignsandprograms/SafeCleaning/safecleaninghealth>
- See what chemicals are released during use of certain cleaning products - studied by the Environmental Working Groups ([www.ewg.org/schoolcleaningsupplies/cleaningsuppliesoverview](http://www.ewg.org/schoolcleaningsupplies/cleaningsuppliesoverview)). Happy Green Cleaning!