

GUIDE TO GREEN CLEANING

Cleaning your home is a part of everyday life, whether you do it yourself or hire someone to do it for you. And if you are the person being hired, you may even do a double shift by not only cleaning your own but also some else's home. This Guide gives valuable information for everyone involved in creating a healthy home.

Green cleaning not only keeps homes and workplaces healthier, but reduces the number of toxins we put into our wider environment and reduces how much our consumer spending contributes to climate change.



Meet our community partner!
The Field Museum created this tool in collaboration with the Chicago Coalition of Household Workers, a project of the Latino Union. Want to find out more about their work?
www.latinounion.org
<https://www.facebook.com/chicagoalitionofhouseholdworkers>



IMPROVE THE HOME ENVIRONMENT

Sustainability, or “going green,” includes more than reducing our carbon footprint. It extends into doing things in ways that maintain the health and safety of people in the places where they live and work. When we talk about green cleaning it includes reducing carbon footprint, reducing exposure to toxins, and approaching cleaning work in ways that avoid injury or otherwise improve wellbeing. This guide introduces ideas for making these sorts of improvements in how we do green cleaning. Perhaps unique to this type of guide, it also offers advice on how to talk about green cleaning so you can get family, roommates, employers, or employees on board with making these mutually beneficial improvements to the environments you share.

USE THIS GUIDE TO:

- help you to identify household risks, and how to reduce or avoid them, including making cleaning products.
- make smarter household cleaning choices. Feel free to give this guide to someone who cleans your house, or give it to someone whose house you clean. Then have a discussion about how to make cleaning safer and beneficial for everyone.
- refer to our *Additional Resources* list to stay up-to-date and well-informed.

THIS GUIDE CONTAINS 3 SECTIONS:

1. Hazards & Healthy Steps: household hazards and how to stay safe
2. Toxins & Solutions: common toxins, and how to mix safer alternatives
3. Talk About Green Cleaning: with family, your housecleaner, or employers

HOW DOES CLEANING CONNECT TO CLIMATE CHANGE?

When we buy cleaning products made with many ingredients, a lot of energy goes into their production, transportation, and manufacturing waste disposal. Liquid cleaners are heavy and bulky, so they are also energy intensive to transport. Because we generate energy from fossil fuels, every ingredient, bit of packaging, or ounce of water adds to a product's “carbon footprint,” a measure of its contribution to global warming and consequently climate change. Mixing your cleaning products from a few simple ingredients such as tap water, baking soda, and liquid soap-reduces their climate impact and saves you money.



1 HAZARDS AND HEALTHY STEPS

Household hazards and how to stay safe

HEALTH HAZARDS

- Respiratory Toxins - are in the air we breathe, which can worsen, or cause, asthma and other lung diseases. Pollutants trapped indoors can build up over time, and become more toxic than outdoor air!
- Carcinogens & Neurotoxins - can cause cancer and hurt the brain, often over prolonged exposure.
- Endocrine, Reproductive, and Developmental Toxins - negatively affect hormones, fertility, and childhood development.
- Allergens and Irritants - can cause painful or irritating reactions, especially harsh chemicals and strong fragrances.
- Accidents like Burns and Poisoning - can happen if chemicals are ingested or come into contact with eyes or skin.

HEALTHY STEPS

- Avoid toxic cleaning products. Warning labels can help you identify hazards, but remember companies aren't required to label all ingredients. Most "fragrances" and "dyes" aren't safety tested and can be dangerous when combined with other ingredients. So for a safe and inexpensive alternative, make your own cleaner instead!
- Protect yourself from toxic exposure. Wear the right protection for the job and substances you are using. Consult the NIOSH pocket guide that is searchable by chemical: <http://www.cdc.gov/niosh/npg/> to better understand hazards and options for protection.
- Work in well-ventilated areas to avoid respiratory toxins. Open a window for ventilation and fresh air, and transition towards safer alternative homemade cleaners.

ENVIRONMENTAL HAZARDS

- Air toxicity - in the air chemicals can harm other people, animals, and lead to ozone depletion.
- Aquatic toxicity - toxins washed down the drain can poison life in lakes, rivers, and oceans.
- Anaerobic biodegradability - Objects thrown in landfills are buried quickly, and decompose quickly due to lack of oxygen. (and contributing much more CO₂ than a small compost bin might.)
- Bird & pollinator toxicity - Without birds, bees and other pollinators all plant life suffers, including plants we eat.
- Carbon footprint - The amount of energy used, which contributes to climate change contributing greenhouse gases to the atmosphere. Includes direct contributions like driving a car, or indirect, like buying a product that was shipped across the country in a truck.

ENVIRONMENTALLY-FRIENDLY STEPS

- Buy local, with few ingredients & little packaging
- Buy powdered and concentrated ingredients to which you add water
- Reusable > Disposable – Disposable cleaning products make a lot of waste in our landfills, and use a lot of energy when manufactured & shipped. Turn old clothes into rags or buy reusable cleaners like sponges or mops.
- When cleaning junk out of attics and basements, don't throw away things that can be reused. Think about holding a yard sale or donating to reduce your landfill contribution.
- Try to reduce your energy use when cleaning. Wash clothes in cold water, hang-dry laundry, turn off the heat setting on your dishwasher, and open a window for ventilation instead of turning on the air conditioner.
- Don't pour toxins down the drain! Look for neighborhood toxic waste collection days, so your old chemicals don't hurt aquatic life.



Did you know there's no federal regulation concerning home cleaning products?

Unlike food or pharmaceutical products, cleaning product manufacturers aren't held to safety standards, and don't have to disclose every ingredient! "Natural" or "green" labels might not really mean a safer or more sustainable option.



Don't Pour Old Cleaners Down The Drain!

Many cleaners can be really harmful to aquatic life, and can end up back in the water we drink too. Colorful signs alert potential polluters to the immediate impact of convenient dumping, but your sink can have a similar impact. Many cities have programs for repair shops to accept used motor oil for recycling, and hazardous waste disposal days or drop off sites for getting rid of household toxic chemicals.

Plants at home

Did you know you can make a home a healthier, happier place just by adding a few plants? Plants improve respiratory health and psychological health well being. Studies have shown that adding even a little bit more greenery can strengthen stronger social ties and improve concentration and mental health! Even microbes in the soil can contribute to serotonin, so potting plants can help make you happy.



Where cats or dogs live, be careful with rhododendron, morning glory, hyacinth, hosta, or poinsettia, all of which can be poisonous if consumed by pets. If you're worried about forgetting to water, try a cactus, aloe, or spider plant, all are pretty hardy.

ERGONOMIC HAZARDS & STEPS

- Lifting - Bend with your knees, do not bend using your back; always keep your legs apart to make a lift. Ask for help if you need it. Do warm-up exercises before and after lifting and always think about your back.
When carrying laundry, cleaning supplies, or other things around the house - Make sure you can see the ground ahead of you to avoid trips or falls. Evenly distribute items on your shoulders or hips to avoid stressing your back or neck.
- Dusting - make sure to use long-handled devices or stable ladders to avoid falls or strains from over-reaching.
- Scrubbing - protect your knees, don't over-exert your back, and use a long-handled brush if possible to help when cleaning difficult spaces like bathtubs.

DON'T



DO



PSYCHOLOGICAL HAZARDS & STEPS

Psychological well-being benefits from maintaining strong family and community ties, and from being around nature. Cleaning can be stress-relieving, but it can also cause stress sometimes if there's limited time, lack of support, or not enough opportunities to change your environment and get outside for a break. Take precautions and respect the effort made by others who help maintain your home.

Communicate thoughtfully and honestly with people around you to maintain strong social ties. Think about important relationships with friends, family members or house cleaners you might employ.

Think beyond your immediate social circle when you make sustainable choices. Psychological health benefits from helping the wider global community too!



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TOXINS & SOLUTIONS

Common toxins, and how to mix safer alternatives

COMMON TOXINS	TYPE OF CLEANER	MAKE YOUR OWN
<p><u>Tetrapotassium Pyrophosphate</u> - High ecotoxicity (aquatic, air, soil, etc.).</p> <p><u>Quaternary Ammonium Compounds (QUATS)</u> - Common antibacterial, skin & respiratory toxin.</p>	All-Purpose Cleaner	Combine into a spray bottle: ½ tsp washing soda, 2 c hot water, & a dab of liquid soap; shake until dissolved, apply & wipe off with sponge.
<p><u>2Butoxyethanol</u> - Characteristic sweet smell. Sore throats, respiratory irritation. If ingested: narcosis, pulmonary edema, liver & kidney damage.</p>	Window & Glass Cleaner	Combine in a spray bottle: ¼ c vinegar, ½ tsp liquid soap, 2 c water; shake to blend, spray on windows, wipe with rag, then squeegee clean
<p><u>Sodium Hypochlorite (Bleach)</u> - Aquatic toxicity. Respiratory risk, possible carcinogen when mixed with fragrances.</p>	Kitchen Cleaner (Counter, Floor)	Let vinegar sit on counter grime and mildew, then scrub clean with soapy water. Mix in bucket: ½ c vinegar, ½ gal warm water; use rag/mop to clean floors.
<p><u>Ammonia</u> - Respiratory irritant, poisonous when mixed with bleach.</p>	Silver Polish	Vodka also cleans & produces a great shine. Or let toothpaste sit, wash off.
<p><u>Formaldehyde</u> - Aquatic toxin. Carcinogen, respiratory/organ toxin.</p>	Wood Furniture Polish	Mix in bowl: ½ c olive oil, ¼ c lemon juice; wipe into furniture with soft cloth.
<p><u>Sodium Hydroxide (Lye)</u> - Extremely corrosive to skin, eye, & respiratory system.</p> <p><u>Morpholine</u> - high skin irritation, moderate vision & organ damage.</p>	Oven Cleaner	<p><u>Surface</u>: mix paste of 3 tbsp baking soda, 1 tsp salt, 1 tsp water, spread and let sit 8 hrs, scrape & wipe clean.</p> <p><u>Oven floor</u>: sprinkle with generous baking soda, spray water until damp all over, let sit 8 hrs, scrape clean</p>
<p><u>Phthalates</u> - Found in many scented products, not required to be on label. Known endocrine disruptor. Possible carcinogen.</p>	Air Freshener	Keep home clean & well ventilated. Baking soda in fridge & trashcan. Combine in spray bottle: 1 tsp vinegar, 1 tsp baking soda, 2 c water; shake & spray. Simmer water with cinnamon sticks, orange peel, or cloves.

Everyday ingredients to stock up on

- Castile Soap or Vegetable Glycerin Soap
- Baking Soda - *absorbs odors, mild abrasive*
- White Vinegar - *deodorizes, removes soap scum, mildew, mineral deposits, & grease*
- Hydrogen Peroxide - *bleaching agent & anti-microbial*
- Washing Soda (Sodium Carbonate) - *cuts grease, but don't use on waxed floors, fiberglass or aluminum!*
- Sodium Percarbonate - *a type of oxygen bleach, better than sodium hypochlorite bleach, but wear gloves just to be safe*
- Tea Tree Oil - *a natural antibacterial, antifungal, a lovely smell, a little goes a long way!*
- Lemons - *fight mineral scum and grease*
- Fresh Herbs, Citrus Peels - *natural scents*
- Olive or vegetable oil - *natural moisturizer for surfaces*
- Salt - *a natural abrasive*

Additional materials to stock up on

- Rags (cut up old clothes into handy sized pieces, so you don't have to use disposable paper towels)
- Sponges, towels, and an abrasive scrub brush
- Spray bottles (for home-mixed cleaners); should be labelled
- Microfiber cloths (for dusting & polishing)
- Microfiber mop & bucket
- Broom & dustpan
- Measuring spoons & cups
- Toothbrush (for scrubbing grout)
- Squeegee (for showers/windows)

Be careful mixing cleaners!

Don't mix chlorine bleach with ammonia cleaners, vinegar, or other acidic substances or you'll make a toxic combination!

Don't use vinegar on natural stone like travertine, it will eat away the porous stone.

Don't use sodium carbonate on waxed floors, fiberglass or aluminum.

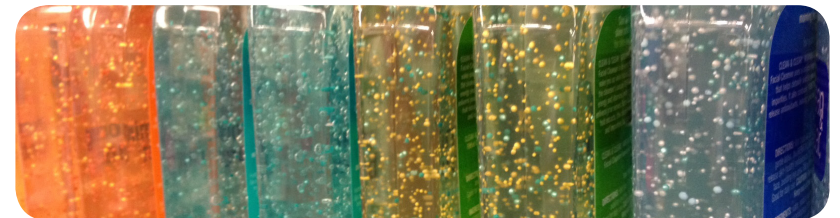
Some green cleaners can still be a little harsh on your hands, so wear gloves when using sodium carbonate (Washing Soda), or Sodium Percarbonate (an alternative to bleach).

COMMON TOXINS	TYPE OF CLEANER	MAKE YOUR OWN
<p><u>Sodium Hypochlorite (Bleach)</u> - aquatic toxicity, respiratory risk. Possible carcinogen when mixed with fragrances.</p> <p><u>Alkyl Dimethyl Benzyl Ammonium Chlorides (C12-16)</u> - organ toxin</p>	Bathroom Cleaner (Sink, Tile, Tub)	Liquid castile soap with water. Non-chlorine bleach products. ½ c baking soda w/ diluted soap. Don't use vinegar on Travertine stone!
<p><u>Hydrochloric Acid</u> - Allergies, skin damage and irritation,. Some concern to lungs, other organ effects, and damage to vision.</p>	Toilet Bowl Cleaner	Mix in bucket: 1 c water, 1 c baking soda, 1 c castile soap, ¼ c vinegar. Wait for bubbles to subside, pour in bucket & scrub.
<p><u>Antibacterial Triclosan</u> - Aquatic toxin, especially for algae. Hormone disruptor, probable carcinogen.</p>	Hand Soap	Use plain soap without fragrances, antibacterials, or microbeads. Castile soap or vegetable glycerin soap.
<p><u>Perchloroethylene (PERC)</u> - Neurotoxin, possible carcinogen.</p>	Dry Cleaning	Rub undiluted castile soap directly on stains before washing. Find an eco-friendly "Wet-cleaners" for PERC-free service.



Cut out antibacterials

Antibacterial cleaners, hand soaps, and to-go gels have become common recently, but they work no better than regular soap and water, according to the FDA. Unfortunately, they contribute to creating super-microbes, bacteria that have become resistant to antibacterial formulas, and more dangerous. Antibiotics also strip us of naturally-occurring healthy microbes, and weaken the immune system. Triclosan, a common antibacterial is also a probable carcinogen, hormone disruptor, and aquatic toxin.



Cut out micro-beads

Found in hand and face soaps as a scrubbing ingredient, these small plastic beads easily wash down the drain, but they don't decompose. Too small to be effectively removed from water filtration systems, they end up hurting aquatic life and end up in our water too! They absorb surrounding chemicals, and become more toxic over time. Microbeads have been banned in Illinois, effective 2018, but they are still sold in many other states. Look for natural scrubbers like walnut shells, apricot seeds, sugar, or rice instead!

3 TALKING ABOUT GREEN CLEANING with family, employer, or employee

With family or roommates:

- Plan your conversation. Cleaning is part of everyday life, and it can be hard for people to transition their daily practices, so be patient and thoughtful in your conversations. Be respectful, explain your needs, and listen to their needs.
- Seek to make cleaning jobs fair among members of a household. House cleaning is essential for everyone.
- Connect individual actions to larger social & environmental impacts to help encourage positive change.
- Are there other concerns to discuss? Open and respectful communication can help keep peace in your home environment.

With your employer:

- Plan your conversation. Think about your health, that of the family whose home you clean, and the health of the planet. Make those connections clear to build your case.
- Be respectful, explain your needs, and listen to their needs. Don't blame the employer for expecting certain cleaning products; they are commonly used and most people don't know there are safer alternatives.
- Are there other concerns to discuss? Open and respectful communication can help keep peace in your work environment, and result in a working relationship that benefits all.
- If the situation is out of control, don't stay in the house. Seek help.

With your employee:

- Plan your conversation. Think about how you can help them transition to green cleaning effectively. Ask what products they currently use. Hazardous products are common, and your employee may think you expect them, so don't blame them for past choices.
- Be respectful, explain your needs, and listen to their needs. They are professionals, and might know even more ways to be healthy and sustainable than those covered in this tool!
- What safety precautions does your employee take for themselves and for your home/family? As an employer you care about your family and your employee. Your employee cares about your family too! Make sure they have proper resources, time, and capacity to take precautions to prevent toxic, psychological, or ergonomic harm.
- Are there other concerns to discuss concerning your employment relationship? Open and respectful communication can help resolve issues before they become problematic, to maintain a mutually beneficial working relationship!

WANT HELP?

Are you looking to hire someone to help clean your home with both health and sustainability in mind? Are you looking for advice from professional green cleaners? Or are you a house cleaner who needs help negotiating your working situation? Visit the Albany Park Workers Center today!

3416 W. Bryn Mawr

7:00am - 11:00am 773.588.2641
www.latinounion.org/workercenter.htm

"THE WORK THAT MAKES ALL WORK POSSIBLE"

The Chicago Coalition of Household Workers honors the work of caring for children, the elderly, people with disabilities, and for the homes of an employer. Following the suggestions made in this Guide is also a sign of honoring this work, the workers who perform it, and the earth that we share.

Additional Resources:

Chicago Coalition of Household Workers
facebook.com/chicagoalitionofhouseholdworkers

Illinois Domestic Worker's Coalition
respectallwork.org/about.html

Environmental Working Group
(look up cleaning products, scientific research, and alternatives)
ewg.org

Chicago's Household Chemicals & Computer Recycling Facility
(for details, hours, and a full list of items accepted)
<http://bit.ly/1id5Z1d>

Chicago Green Cleaners (a local alternative dry-cleaning company)
chicago-green-cleaners.com

The Field Museum



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