Cleaning Healthy. Cleaning Green.

People spend an average of 90 percent of their time indoors. Studies conducted by the Environmental Protection Agency (EPA) show levels of several common organic pollutants to be 2 to 5 times higher inside homes than outside. Many of these pollutants come from the volatile organic compounds (VOCs) released from household cleaning products. Indoor pollutants can be reduced by limiting the number of chemicals used indoors. By following three basic guidelines you can improve your indoor environment, save money and help conserve natural resources.

Green Cleaning Tip #1: Simplicity

Simplify cleaning and reduce VOCs by using fewer cleaning products. Choose or make products that you can use for several purposes. If you use fewer cleaners then you have are storing fewer chemicals in your home. Most cleaning products contain one or more of these basic cleaning ingredients: abrasive, alkali, acid, bleach, disinfectant and surfactants.

Abrasives:

The purpose of an abrasive is to scour off the dirt, grease or particulate matter by rubbing the surface. Coarse abrasives, like steel wool, may require less scrubbing, but can scratch the surface. Finer abrasives like silica or a nylon mesh scrubber are less likely to scratch surfaces but may require more scrubbing.

Alkalis:

Oily dirt is best removed by an alkali such as baking soda or borax. These are soluble salts that range in strength. Baking soda is one of the mildest alkalis. It cuts grease, cleans oven spills, absorbs odors and cleans tile, glass and enamels. Borax is a moderate strength alkali that is found in the laundry aisle of the grocery store. It is a good all purpose cleaner. Washing soda or sodium carbonate is a very strong alkali that works to remove tough stains. Stronger alkalis need to be used with caution. The dust from borax and washing soda can cause irritation to the throat and they are toxic when ingested.

Acids:

An acid is often used to remove hard-water deposits, discoloration on metal surfaces and rust stains. White vinegar and lemon juice are mild acids that can be used in place of commercial products. Lemon juice should not be used on silver. Prolonged exposure to an acid may irritate the respiratory tract, so it is important to provide adequate ventilation when using the products.

Bleaches & Disinfectants:

Bleaches are used to remove stains and disinfect surfaces. Chlorine bleach, commonly referred to as household bleach, contains sodium hypochlorite and may cause severe damage or irritation to eyes, skin and respiratory system. Avoid breathing the vapors. Alternatives to chlorine bleach are oxygen or non-chlorine bleaches, which usually contain hydrogen peroxide, sodium perborate or sodium percarbonate.

Disinfectants are products that kill microorganisms on surfaces such as countertops. Bleach, alcohol, quaternary ammonium chlorides, phenolic compounds, pine oil, and hydrogen peroxide can be used as disinfectants. Findings from a study conducted by the University of Minnesota indicated that the most effective cleaners for reducing microbial contamination in the bathroom and kitchen were chlorine-based cleaner, vinegar and pine disinfectant cleaner.[1]

Surfactants:

Surfactants are the primary ingredients in soaps and detergents. They are used to cut grease and grab onto the dirt to help remove it from the surface. Surfactants are usually petroleum-based. Alternative surfactants are plant-based, often using vegetable or coconut oil.

Green Cleaning Tip #2: Economics

Homemade cleaning products usually cost less than commercial or over-the-counter cleaners. Both homemade and natural-based commercial products can be used as alternatives to their more toxic commercial counterparts. Homemade cleaners allow you to use familiar, less-toxic ingredients. They require time for preparation and you may need to expend more energy to clean. Natural-based commercial products are more convenient, but often more expensive than other products. **No cleaning product is 100% safe.** The terms natural and green do not imply that the product is nontoxic. All cleaning products should be used with caution.

Green Cleaning Tip #3: Environment

There are many reasons to replace your current cleaning products with healthier alternatives. You can choose to go green for health reasons or to conserve natural resources. An easy way to improve your indoor environment is to reduce the need for using cleaning products. Household dust has been shown to have high levels of VOCs, asthmagens and other toxic chemicals.[2,3] You can reduce the dust in your home by adopting good cleaning habits and investing in good equipment.

Preventative Cleaning: An Ounce of Prevention

- Wipe up spills immediately.
- Reduce oven spills by placing a tray or foil under baking dishes.
- Don't pour grease down the drain.
- Pour boiling water down drains weekly to reduce buildup.
- Damp mop floors instead of sweeping.
- Rinse the shower, bathtub and sink after each use to reduce soap scum buildup.
- Use a squeegee to clean plastic or glass shower doors after each use.
- Install drain screens to reduce hair and debris clogs in sink and bathtub drains.
- Vacuum weekly.
- Dust with a damp cloth.
- Use a doormat at entryways to reduce dirt tracked in to the house.
- Remove your shoes at the door and switch to "inside shoes." (It is not advisable to wear only socks on hard surface floors.)

Invest in good equipment:

If you have good equipment when cleaning it makes the task much easier and you are more likely to clean regularly. A good place to start is by reducing the dust coming into your home. Invest in doormats for all exterior doors. Ideally, you should place a grate outside each door and mats inside. A vacuum with a HEPA filter is a costly but great investment for anyone, especially people with health concerns. Use microfiber mops and cleaning cloths. When mopping use a two-chamber mop bucket. This is designed to prevent soil and dirt from re-contaminating surfaces as you clean them. It also helps reduce the amount of cleaning product needed.

Keeping your home clean prevents the need for artificial air fresheners that merely provide an impression of cleanliness. Some commercial preparations may contain benzene and formaldehyde both of which are known carcinogens and for some individuals may cause irritation.[4] Alternative air fresheners include white vinegar, cinnamon sticks and airing out the house.

Safety Tips

Whether you make them yourself or use commercial cleaners, you should follow some routine protective measures.

1. Read the labels of cleaning products to see if respiratory masks, rubber gloves, goggles, or other protective measures are recommended.
2. Be careful mixing products. Some chemicals, such as chlorine bleach and ammonia produce a toxic gas when mixed.
3. Mix only what you need or no more than a month's supply. They may lose their effectiveness over time.
4. Mix solutions in a well-ventilated area.
5. Place mixed products in unused new containers. Never use containers that previously held food, beverages or chemicals.
6. Store out of reach of children.
7. Label containers with ingredients and date made.

Beware of Greenwashing

The term greenwashing was coined in 1986 by an environmentalist in reference to companies spending more time and money advertising as green rather than putting more resources into the adoption of environmentally sound practices. It is up to you to protect yourself from being misled by false claims.

There is no standardized definition of the term "green."The government promotes the use of "environmentally preferable" products and services to reduce pollution. These are products and services that have less of an effect on human health and the environment than similar products and services used for the same purpose.[5] The term "green" is not regulated, so you need to shop carefully and not assume that all environmental and health claims on the label are true. Even terms like "environmentally friendly" and "biodegradable" are loosely defined. Generally the term environmentally friendly refers to a product or packaging that causes no harm to the environment. Biodegradable refers to a product or packaging that will break down in nature.

When selecting a green product, look for a third-party certification. The most widely used certification in the United States is the Green Seal. This is an independent non-profit organization that certifies products using credible, science-based and transparent standards.

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