

How to a have Safer Home, Improve YOUR Health, and YOUR Environment.

A FREE Publication by the Earthlife Africa Toxics group,
in the interests of the health of you, your family and friends,
and your environment.



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We all are concerned about our health and that of our family. We all tend to be concerned about the environment, which is being damaged beyond repair. What, you may ask, can one person do to reverse this? Actually, quite a lot – but usually, we do not. Not because we don't care, but because we are not always sure of what to do. This guide will help you – don't try and do it all at once – maybe try one new thing every week. Trying to do it all may be difficult, and may stop you from trying.

Dust.

- Dust is full of many toxic substances in the home. Children are particularly at risk, as they typically ingest 5 times more dust than adults. House dust exposes children to chemicals that are like smoking three cigarettes a day (benzo(a)pyrene); they are also exposed to cadmium, lead, and other dangerous heavy metals. PCB's and other persistent organic contaminants (which are being banned worldwide over time) are also a risk. So, what do you do?
- Leave your shoes off at the door – using a dust removing doormat can reduce the amount of lead by a factor of 6. Pesticides also remain in carpets for decades, where sunlight and bacteria are not found to break them down.
- Bare floors are best – carpets trap a lot of dust, and vacuuming will not remove it all. Alternatively, use rugs made from natural fibres that do not use toxic chemicals and do not let off chemical gases.
- If you do use carpets, rather nail them down with strips, instead of glueing them to the floor, to minimize exposure to more chemicals.
- Make sure that children and pets are not in the room when you vacuum, and make sure that

windows and doors are open while you vacuum.

- Avoid indoor pesticides – cockroaches are tough creatures (although unlikely to cause harm) and the chemicals used to kill them do a great deal of harm to us! Cleanliness is a good way to keep insects down.
- Dust, in the form of human skin, also accumulates in mattresses and pillows – take them outside, and beat them, to minimize a breeding ground for bugs and other allergy causing microbes.

Improve ventilation and air quality.

- House plants help clean up the air – spider plants, philodendron, and others have been shown to absorb as much as 80% of formaldehyde in a room in 24 hours.
- Improve the ventilation of your kitchen, bathrooms with showers, and where you wash clothes. Most people's highest exposure to chloroform is from water vapour from showers, boiling water and washing machines.
- Ionising air filters remove particles as small as 0.1 microns, but cheaper models tend to emit ozone and electromagnetic fields.
- Our biggest exposure to benzene comes from indoor cigarette smoke, although 82% of benzene missions come from vehicles.

Buy organic, and other food issues.

- Buying organic is more than just having healthy food for yourself and your family – this also means less chemicals on farms; workers not being exposed to pesticides and herbicides; and, of course, good nutrition for all.
- For the sake of your health, and that of the planet, eat less meat. It takes 2500 litres of water and up to 17 kg of vegetable protein to make 1 kg of meat. This poor use of our protein resources is partly the reason why we have world hunger. One-third of all fish caught

are fed to land based animals as feed – what a waste!

- Cook in a non-aluminium pot – although not conclusively proven, aluminium pots are implicated in, for example, Alzheimers Disease. If you have to use aluminium pots, avoid metal spoons, so that aluminium is not scraped into your food.
- If you use enamel pots, stop using them once you can see the metal, as the rust will contaminate your food.
- Use oil instead of fat, and if you can afford it, oils such as olive and peanut are very good for you.
- There is no real benefit using margarine or butter – the manufacturing process for margarine is questionable, as some of the waste it produced explodes into flame without any help! Not too healthy!
- Try to eat red meat no more than twice a week, and white meat no more than twice a week. The other three days should be vegetarian.
- Wash all fruit and vegetable (that is not organic) to remove pesticides, herbicides and hormones.
- Rather scrub, instead of peeling, vegetables, as much nutrition is close to the surface.
- Eat fruit and vegetables in season – they are usually cheaper, and provide just the nutrition that we need at the right time.

Clean and green

- Most household cleaning can be done with a half and half mixture of vinegar and water, or liquid soap and baking soda.
- Use baking soda and hot water for basins, tubs and tile cleaning.
- Use baking soda and vinegar for cleaning drains, or hydrogen peroxide (from the chemist) and a plunger for serious clogs.
- For hand dish washing, use a plain soap (like cheap bar soaps) or non-phosphate “green” dishwashing liquids. A slice of fresh lemon in the rinse water will leave your dishes

sparkling! For automatic dishwashers, use equal parts borax and baking soda – you will be amazed how well it works, and how much you will save.

- Use about a cup of baking soda, white vinegar, or borax instead of laundry detergent.
- If you really have to use a bleach, rather use sodium hexametaphosphate based, not chlorine.
- Instead of adhesives, try nails, screws and bolts.
- You do not need expensive chemical sprays to dust – a damp rag works well, and cleans just as well.
- Never use optical brighteners to wash your clothes – they disrupt the ecosystems in the rivers because they cannot be broken down.
- Wash the car with a few buckets of water rather than the hose.
- Keep water level in pools low to minimize splashing.
- Don’t use the hose to sweep the driveway / patio... a broom will do the job.

House maintenance and decorating.

- Use a mask, and keep children and pets away from where you are sanding or stripping paint.
- Use water based paints, and avoid solvents (turpentine, lacquer thinners, etc)
- Look for these safer alternatives on the label – borax, beeswax, boric salt, chalk, milk casein, and titanium dioxide.
- Use water based strippers – they do take longer, but are much safer. They are also safer than sanding, scraping, or burning paint, which create dangerous fumes and dust.
- Wear protective clothing and a dust mask while doing renovations – keep children away.
- Avoid chipboard and MDF (Medium density fibreboard) – they have a high formaldehyde content, which gases out of the board over time. This is a recognised carcinogen (cancer causing) which also irritates the lungs, throat and eyes.

Water

- Although most tap water is safe to drink, certain contaminants (such as chlorine, heavy metals, etc) are still in it – so try and filter the water you drink and cook with. Tea and coffee will taste much better!



- Replace tap with taps with aerators – this will cut down your water usage.
- Fit lo-flush or dual flush fitting to the toilet.
- Use short bursts of water from the tap when brushing your teeth.
- Put a water-filled plastic tub in your toilet cistern - this will save many litres of water with every flush.
- If you have sufficient pressure, then fit a lo-flow showerhead.
- Avoid things that colour your toilet water – the dye is hard to remove when the water is re-processed. The flush cleaners are usually unnecessary.
- Leaving the window open, and possibly some baking soda on a saucer will remove most odours. Some aromatherapy oil is also nice. This is cheaper and nicer than chemical air fresheners.

Get rid of Plastics

Vinyl chlorides, which include polyvinyl chloride (PVC), are the main ones to avoid. They let off toxic gases, especially when they

are new, and can leach into food, especially hot and fatty food.

PVC is found in water pipes; food containers; pacifiers (dummies and teething rings); squeeze toys; crib bumpers; garden hoses; playpens; shower curtains; shopping bags; inflatable toys; upholstery; raincoats; some gumboots; shoes; household chemicals and adhesives.

- Never heat food in a microwave in plastic
- Get rid of as many plastic items as possible, especially those that are likely to be used to hold food or be put into childrens' mouths.
- Replace plastic shower curtains with cotton or other natural material.
- Find natural replacements for plastic products, such as: wool nappy covers; wood boxes; grass baskets; glass containers; glass dishes; metal knives, spoons and forks;
- Use cloth shopping bags – get a whole lot, or if you are handy with a sewing machine, make your own, and for our friends.

Energy

- Replace your normal lightbulbs with energy savers – they will last as long as 8 ordinary globes, and save you money spent on electricity.
- Put a timer on your geyser, and set it lower than “boiling hot” – try different temperatures, and see what works for you.
- Walk or cycle instead of always using the car.
- Don't leave lights and appliances on when unnecessary.
- Turn appliances off instead of switching to standby.
- When you make a cup of tea or coffee boil only the amount of water you need. If everybody did this just for one day, you could all save enough energy to light every street light at night.
- Invest in insulation, double glazing, and other energy-saving measures, like low-energy light bulbs. They really do give you a better rate of return than any bank account.
- Consider using a solar water heating system in your house because it can pay you back in two or three years, and thereafter start saving you money.



Gardens

- Try and make your garden as indigenous as possible. Not only do they look good, but this will also cut down on water, chemical, fertilizer, herbicide and pesticide use, and their nasty health and environmental impacts.
- Avoid large lawns – they are energy and water intensive to maintain – use groundcovers where possible.
- Mulch, mulch and mulch some more – and watch your garden grow, with less water than ever before.
- Plant many different things, which will also encourage a wider variety of birds, butterflies, and other elements of nature.
- Stop using all chemicals – they really are not necessary.
- Use organic fertilizers and lots of compost – you will soon stop using artificial chemical fertilizers.
- Water in the morning or the afternoon – that way, you will lose much less water through evaporation.
- Plant trees whenever possible – they provide welcome shade, and much more besides.

Waste

- Buy products that are not over-packaged – choose products that have the least number of layers, for example.
- Choose glass over plastic; cardboard and paper is fine too. Avoid the ones that look like cardboard boxes – they have plastic, foil and cardboard all together, and are nearly impossible to recycle. Deposit containers are

best of all, as they are re-used, and not thrown away.

- Separate your waste – paper and card; glass; cans and other metals; plastics; and organic materials, ideally to make your own compost.
- You can even keep worms in your house (in a container) to turn your kitchen waste into natural fertilizer (vermicomposting)
- Remember to Re-Use, Repair, Recycle! - it's better to find another use for something or to use it again; if it is broken, repair it; and if you can't do either, take it to be recycled. Anything is better than landfill.
- Homes have much that is classified as hazardous waste, such as batteries; fluorescent tubes; medical waste (leftover medicines and pills); paint thinners; nail polish and nail polish remover; these should be collected, and taken to a hazardous waste site. Look out for when you chemist has a "take back day" of old medicines. They will dispose of the waste safely.

Personal

- Never use an aerosol – although they no longer contain ozone depleting CFCs, many still contain hydrocarbon propellants that contribute to air pollution and when inhaled, irritate the lungs.
- Avoid deodorants containing aluminium – most commercial deodorants contain either aluminium chlorohydrate or aluminium zirconium, which are both easily absorbed into the skin. Once in the body, it passes across cell membranes and absorbed by the liver, kidney, brain, cartilage and bone marrow, thus increasing the risk of blood poisoning.
- Swap to non-chlorine bleached sanitary pads and tampons. Chlorine bleaching leaves residues of dioxins on the pad which is carcinogenic.
- Buy products whose that have not been tested on animals – be careful – this is NOT the same as saying that the product has not been tested on animals – some ingredients may well have been.

Recipes:

All-Purpose Cleaner

1 quart warm water
1 teaspoon liquid soap
1 teaspoon borax
1/4 cup undiluted white vinegar

Mix ingredients and store in a spray bottle. Use for cleaning countertops, floors, walls, carpets and upholstery.

Scouring Cleansers

Sprinkle baking soda, or mix baking soda with water, and scrub with a wet sponge. If the baking soda leaves a residue, rinse with cold water and vinegar. Dry with a cloth. Also, nonchlorinated scouring powders are safe to use.

Glass Cleaner

1 quart warm water
1/4 cup white vinegar or 2 tablespoons lemon juice
Mix ingredients and store in a spray bottle.

Disinfectant

* Use 1/2 cup of borax in one gallon of hot water.
• Hydrogen Peroxide (3% solution) is also an effective disinfectant.

Mildew Removers

- Scrub mildew spots with borax/water solution (1/2 C. borax to 1 gallon water) using a nylon scouring pad. To prevent mold or mildew from forming, don't rinse off the borax.
- Scrub with a vinegar and salt paste.
- If you have major problems, the best solution is heat. Applying heat to an area will kill mold and mildew.

Degreaser

- Use vinegar, lemon or a citrus-based cleaner.
- Also: Mix 1/2 teaspoon washing soda (sodium carbonate, soda ash or sal soda), 2 tablespoons white vinegar, 1/4 teaspoon liquid soap and 2 cups hot water.

Bathroom

Clean sink, shower, tub, tile with diluted liquid soap and scrub with a nylon scrubbing pad. Use a stiff toothbrush or scrub brush for tiles.

Toilet Bowls

- Put 1/4 cup borax in toilet bowl and let sit for a few hours or overnight. Next day, scrub – or scrub with a solution of 1/2 cup borax to 1 gallon of water. A few drops of pine oil can be added for increased disinfecting. (Note: some people are allergic to pine oil.)
- Scrub with baking soda and/or liquid soap. To remove stains, pour 1/4 cup borax and let sit for at least 30 minutes, scrub and flush.

Tub and Tiles

- Scrub surfaces with baking soda slightly moistened with water.
- To remove mineral deposits around faucets, cover deposits with strips of paper towels, soaked in vinegar. Let sit for 1 hour and clean.

Fabric Stain Remover

- Mix:
 - 1 part glycerin
 - 1 part liquid dish washing detergent
 - 8 parts water

Apply to stain as soon as possible and blot with cloth. Store in a squeeze bottle.

- Alternately, soak fabric in 1/4 cup borax and 2 cups cold water.

Upholstery Cleaner

- Mix 1/4 cup liquid soap with 3 tablespoons water. Rub foam into upholstery with a cotton cloth, then rinse with a clean sponge.

Spot Removers

- Fruit and Wine: Immediately blot stain with a towel and add cold water, continuing to blot.
- Grease: Pour boiling water on stains and follow with dry baking soda.
- Blood: Soak in cold water or remove with hydrogen peroxide. For more stubborn stains, apply a paste of cornstarch, corn meal or talcum powder. Allow to dry, brush away.
- Rust: Saturate with lemon juice and rub with salt. Place in direct sunlight until dry, then wash.

- Mildew: Pour soap and salt on spots and place in sunlight. Keep moist and repeat as often as necessary.
- Perspiration odor: Add one cup vinegar or baking soda per wash load.

Oven Cleaner

- Mix:

1 quart warm water
2 teaspoons borax
2 tablespoons liquid soap

Spray on solution, wait 20 minutes, then clean.

- Alternately: make a thick paste with water and baking soda and scrub with a nylon scrubbing pad. If greasy, add a small amount of liquid soap. To remove spots, use very fine steel wool. A wet cleaning pumice bar can be used to remove the toughest spots.

Drains

- Pour 1/4 cup baking soda down the drain, followed by 2 ounces of vinegar. Cover the drain and let sit for 15 minutes. Rinse with 2 quarts of boiling water. Use this treatment regularly to prevent clogged drains. Also, pour boiling water down drains on a weekly basis to prevent grime buildup.
- For clogged drains, use a plunger or snake. Before using a plunger, be sure there is water standing over the drain. Push and pull vigorously.
- Prevention: put a strainer or filter in all drains, never pour any type of grease down your drains, use an enzyme based "buildup remover" to break down grease and prevent clogs, plant away from sewer lines.

Silver Polish

- Rub object gently with toothpaste (or a baking soda/water paste) on a soft cloth to avoid scratching. Rinse well with water.
- Boil silver 3 minutes in a quart of water containing 1 teaspoon baking soda, 1 teaspoon salt and a piece of aluminum foil.

Copper Polish

Pour vinegar or lemon juice and salt over copper and rub. Rinse thoroughly and dry.

Brass Polish

Polish with Worcestershire sauce; or pour on ketchup, let sit, then wipe dry.

Chrome Polish

Shine wet chrome fixtures by rubbing with newspaper; or rub with baby oil and a soft cloth.

Stainless Steel Polish

Clean and polish with a baking soda/water paste.

Furniture Polish

- Unvarnished wood: use almond, walnut or olive oil.
- Varnished wood: use a mild vegetable oil soap.
- To remove watermarks from wood furniture: rub toothpaste on spot and polish with a soft cloth.

Crayon Marks

Rub mark with toothpaste and a damp cloth. Do not use on non-vinyl wallpaper.

Vinyl Floors

Mix 1 gallon water with 1/2 cup white vinegar or 1/4 cup borax. Remove scuff marks with toothpaste.

Unvarnished Wood Floors

Damp mop with mild vegetable oil soap.

Carpet Odors

Sprinkle entire carpet with baking soda. Let sit 15 minutes, or overnight for serious odors, then vacuum.

Air Fresheners

- Pour vanilla extract on a cotton ball in a saucer.
- Set out a dish of vinegar, or boil 1 tablespoon white vinegar in 1 cup of water to eliminate cooking odors.
- Wrap cloves and cinnamon in cheesecloth and boil in water.
- Cover the bottom of your cat's litter box with baking soda before adding litter.
- Use baking soda in refrigerators, closets and other enclosed areas to absorb odors.

Grease and Oil Spills on Concrete

Sprinkle cornmeal, sawdust or cat-litter, allow to sit for several hours then sweep up.

Dandruff Shampoo

Take a handful of dry baking soda and rub it vigorously into your wet hair and scalp, rinse thoroughly and dry. Wash your hair at the same intervals as you usually do but only use baking soda and no chemicals whatsoever. At first your hair might look like straw but stick with it. After a few weeks your scalp will begin to generate its natural oils, stop flaking and your hair will get very soft.

Toothpaste

Use baking soda.

Deodorant

Try baking soda.

Hair Care

Hair Spray

Chop 1 lemon (or 1 orange for dry hair). Place in a pot, cover with 2 cups of hot water. Boil until only half remains, cool and strain, add more water if needed. Refrigerate in a spray bottle.

Hair gel

Dissolve half to 1 teaspoon of unflavoured gelatin in 1 cup of warm water. Keep refrigerated, and use as normal.

Alternative Air Fresheners

Pour vanilla extract on a cotton ball in a saucer. Use in home, car and fridge.

Set out a dish of vinegar, or boil 1 tablespoon white vinegar in one cup of water to eliminate unpleasant cooking odours.

Removing onion odours:

Add a few drops of vinegar to soapy water to remove onion odours from utensils, chopping blocks and hands. Rubbing hands with the cut end of celery stalk will also remove odour.

Cover the bottom of your cat's litter box with baking soda before adding litter – eliminates odour for days.

General cleaning tips:

Remove crayon marks by rubbing with toothpaste and a damp cloth – do not use on non-vinyl wallpaper.

Instead of moth balls, store clean woollens in sealed plastic bags or air-tight containers. Place garments in the freezer for several days to kill adult moths and larvae.

To fight silverfish, make traps with mixture of 1 part molasses to 2 parts vinegar. Place near cracks or holes where pests live. Repel silverfish by applying a mixture of borax and sugar (or honey) to baseboards and cupboards.

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