# Conclusion

While all of the grim facts about airborne toxics may be unsettling, most people are only exposed to minute levels of hazardous chemicals. Furthermore, knowledge is power and the more you know, the better you can protect yourself. You can obtain many publications about health risks from airborne toxics from the U.S. Environmental Protection Agency and other sources, most of them at no charge.

# For more information

Learn more about indoor air pollution:

www.epa.gov/ebtpages/airindoorairpollution.html

Learn about an air toxics monitoring project being conducted in St. Louis:

www.stlcap.org

Learn what your car contributes to air pollution:

www.epa.gov/greenvehicles/

Learn how to be energy smart, save money, and prevent pollution:

www.energystar.gov

Did you know that your bathroom cleaner is probably a pesticide? Learn more from this EPA site. Great for kids related info for adults. Detailed label reading information:

www.epa.gov/kidshometour/tour.htm#view

Learn more about air toxics:

www.epa.gov/air/toxicair/index.html

More information on product evaluation:

www.epa.gov/opptintr/epp/cleaners/select/

Find some great recipes to clean everything:

www.metrokc.gov/hazwaste/house/cleaners.html

The national number for poison control is **1-800-222-1222.** 

Keep this number posted by your telephone.







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For more information visit www.earthwayscenter.org and www.intheair.org

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# IN THE AIR

# **Detox Your Domicile**

This brochure is provided as a part of the Adult Education Module.

For more information see www.intheair.org

# **What are Toxic Air Pollutants?**

Toxic air pollutants are pollutants that have been shown to harm human health. They can cause serious health problems for people, animals, and plants. They may damage the environment.

Toxic air pollutants come from many sources: mobile sources such as cars and trucks, point sources such as industry and manufacturing, and area sources such as our homes and small businesses. What many people do not realize is that everyday products we use in and around our homes contribute significantly to air and water pollution.

Many people are concerned about pollution and its effects on human health. Hazardous air pollutants are controlled by federal laws that are implemented by the U.S. Environmental Protection Agency. The mission statement of the USEPA is the following:

"... to protect human health and to safeguard the natural environment — air, water, and land — upon which life depends."

By mentioning all three aspects of the environment in its mission statement—air, water, and land—the USEPA indicated it would tackle environmental problems through a "multimedia approach." This approach means the three environmental elements (or media) are considered as inseparable parts of a whole. For example, airborne toxics pollute the air, and settle on land. From the land, they are flushed into rivers, lakes, and streams. As a result, people may be exposed to chemicals through breathing air and by coming in contact with contaminated soil and water and eating contaminated plants.

1

# **A Word About Risk**

Determining your health risk from pollution involves several factors:

- What chemical have you been exposed to and how toxic is it?
- What was the amount you were exposed to?
- What length of time were you exposed?

Some people may be more sensitive to toxic pollutants, such as infants and toddlers, the elderly, and those with medical conditions. For example, while fumes from drying paint or varnish are bad for everyone they may aggravate conditions such as asthma or emphysema.

You should know how and where to get information about the properties of commonly used chemicals. How might someone become exposed to them? What dangers to human health and the environment do they pose?

Even though home products, that contain toxic chemicals, are considered to be safe if used according to label directions, they remain toxic and contribute to air and water pollution.

# Strategies for Reducing Your Exposure to Household Chemicals

Look at your inventory of the chemicals in your household. You can reduce your exposure to some of these chemicals in several ways.

Consider the following:

Reduce your highest totals first, by substituting a safer product or cutting down on how often you use it.

Eliminate chemicals with a warning statement of Poison or Danger. These chemicals may pose the highest degree of potential risk.

If you use a product once a year or less often, can you eliminate it altogether?

If you have decided to replace or dispose of a chemical product, follow the instructions on the label. If in doubt, contact your local or state agencies for more information.

Notes on possible substitutions and other ideas:

# **Special Thanks To:**

For more information about free education materials including Detox Your Domicile, see <a href="http://www.intheair.org">http://www.intheair.org</a>

# Inventory of Household Chemicals

Product name. What is it used for?	X Hazard level? (from chart below)	Y How often is it used? (from chart below)	X + Y= Total Score	Is a Substitute Available?

As you look around your home for the chemicals you use, think about storage issues as well. Do you have safer places to store these products?

# Hazard Level: read the label and rate accordingly

Poison or Danger	3
Warning	2
Caution	1

Non-toxic products do not require a warning label and do not need to be scored.

# Estimate How Often You Use this Product?

More than once a week	5
Weekly	4
Monthly	3
A couple times per year	2
Once a year or less	1



# I Am Just One Person. Can I Really Make a Difference?

The good news is yes. While it would take the efforts of many to make a measurable dent in overall pollution levels, you can reduce your personal exposure by changing what you do in your own home. By finding safer substitutes for products you use in your home, you can save money and reduce your exposure to toxic chemicals. Many other ways exist to reduce pollution by changing habits and attitudes.

# Clean Air All-Purpose Cleaner

- 2 tablespoons vinegar
- 2 teaspoons of borax
- 16 oz. of very hot water
- 1 tablespoon liquid soap (like castile or dishsoap)

Essential fragarance oil

Mix vinegar and borax in a clean empty spray bottle with hot water. Shake until borax dissolves, then add liquid soap. You may add several drops of essential oil for a pleasing scent. Spray on appliances, walls, countertops, tile, shower, toilet, etc. and wipe clean.

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# Some Air Fresheners Work By Covering Up Odors Not By Cleaning the Air

Substitute potpourri scented with a natural oil.

Be careful when choosing scented candles. They can produce pollutants when burned and some wicks may contain lead.

# In laboratory studies, tetrachloroethylene (perc) has been shown to cause cancer in animals. If a dry cleaned item has a strong chemical odor, do not accept it until it has been properly dried. Shop for environmentally friendly cleaners that do not use perc or avoid dry cleaning altogether.

Keep Exposure To Dry Cleaning Chemicals To A Minimum

# Avoid Exposure To Products Containing Methylene Chloride

Methylene chloride is found in paint strippers, adhesive removers, and in some aerosol spray paints. It has been known to cause cancer. Methylene chloride is converted to carbon monoxide in the body and can cause symptoms similar to carbon monoxide poisoning. Look for safer substitutes such as No VOC (volatile organic compounds), or Low VOC formulas.

#### Did You Know That Many Bathroom Cleaners Contain Pesticides?

A low-impact sanitizer is isopropyl alcohol. Wipe on clean surfaces and let dry.

#### Save Electricity

Most of the electricity in the United States is made from burning coal. Less electricity used means less pollution entering the atmosphere. Look for appliances that have EPA's Energy Star logo.

#### **Quit Smoking**

Tobacco smoke contains many hazardous air pollutants. Children are at higher risk for respiratory problems and ear infections if they live in a household with a smoker. Consider smoking outside to reduce exposures to second-hand smoke.

### BBQ

Use a gas grill, or if using charcoal, start your fire using a charcoal chimney instead of lighter fluid,

#### Yard Work

Minimize the use of gaspowered engines for jobs that can be done by hand.

#### Compost Happens

Compost your leaves and grass clippings and even vegetable and fruit scraps from your kitchen. If you live in an apartment or do not have room for an outdoor compost pile, consider vermicomposting.

#### Go Native

To reduce water usage and prevent pollution from fertilizers and pesticides, landscape with native plants.

# Some Good News Many houseplants clean the air by removing small amounts of toxics such as formaldehyde and carbon monoxide. Some plants to look for: philodendron, spider plant, peace lily, and aloe vera.

# How Can We Reduce Mobile Source Pollution?

Good automobile maintenance and proper tire pressure saves money and prevents pollution.

Combine errands into one trip.

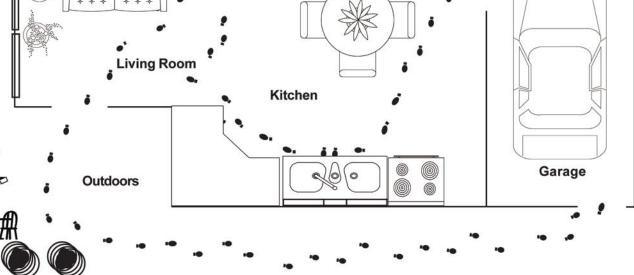
Take mass transit. Share a ride or car pool. Car pooling can dramatically reduce the number of cars on the road and total miles driven. It can save you money, too.

In the summer, refuel vehicles during the cooler parts of the day to lessen the impact of gas fumes.

#### Benzene Blues

Keep exposure to benzene a minimum.

Benzene is known to cause cancer and is a component of gasoline. It is found in tobacco smoke, stored fuels, paint supplies, and auto emissions. Use only approved containers for gasoline and other fuels.



Bedroom

#### Who Knows What Lurks Beneath The Kitchen Sink?

Many of our common cleaning products can be a source of air and water pollution. Read labels and follow instructions even if you use the product frequently. Look for safer alternatives. Many can be made at home at a fraction of the cost of commercially prepared cleaning products. "Green Cleaners" are available in stores but read the ingredients. Green can mean just about anything.

#### Dispose Of Household Chemicals And Their Containers Properly

Improper disposal of chemicals and their containers threatens our air and water quality. Use all of the product as intended. Follow all package instructions.

Bathroom

**Utility Room**