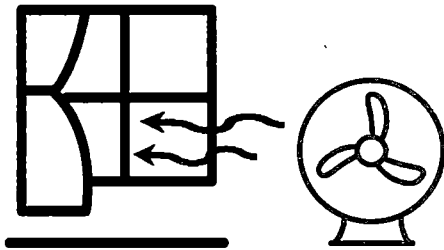
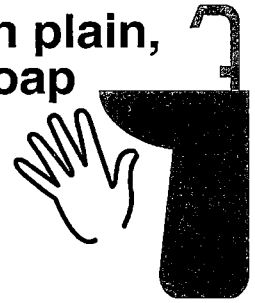


SIMPLE STEPS TO A HEALTHIER HOME ENVIRONMENT

1 Ventilate



2 Wash hands with plain, fragrance-free soap and water



3 Support companies that reduce the use of toxic chemicals and disclose all ingredients



4 Shop smart; Read labels

5 Leave your shoes at the door



6 HEPA vacuum and wet mop

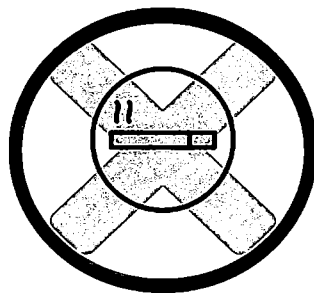


7 Make your own cleaners

Use white vinegar, baking soda, and lemons



Don't use unnecessary products



Don't smoke



Don't use aerosolized sprays and fragrance



Don't use 3, 6 and 7 plastics



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Climate Change & Children's Health

Climate change refers to the increase in air temperatures and changing weather patterns observed over the past several decades

Greenhouse gases

like carbon dioxide (CO₂) are created by burning fuel, agriculture, and other sources

CO₂

traps heat, causing overall increased temperatures

→ Trapped heat ←

is primarily responsible for changing weather patterns

Doctors are concerned that **climate change** is hurting children's health.

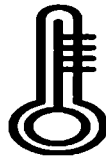
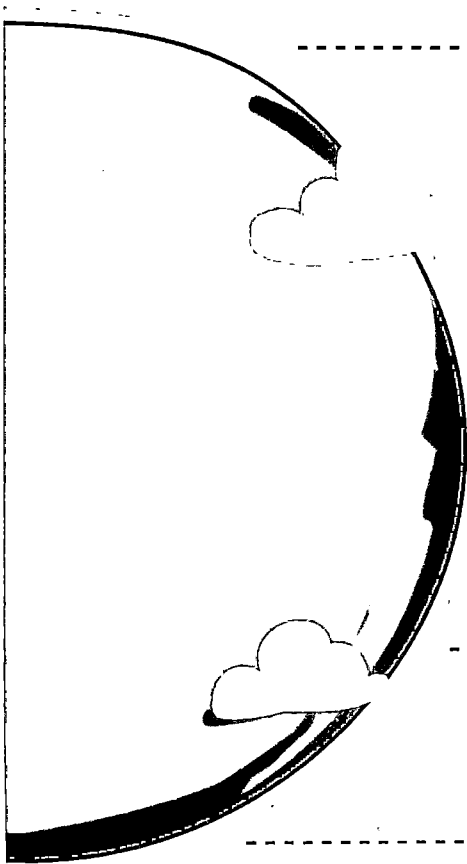


It affects everyone's health, but **88%** of illness from climate change occurs in children under 5 years old.



(McMichael and Campbell-Ledrum 2004)

How does climate change harm **children's health**?



Extreme heat increases risk of illness and dehydration.



Poor air quality due to increased pollutants and pollen worsen asthma.



Warmer temperatures promote the growth of bacteria, viruses, and insects.

Extreme weather causes injuries, missed work and school, and mental health issues.



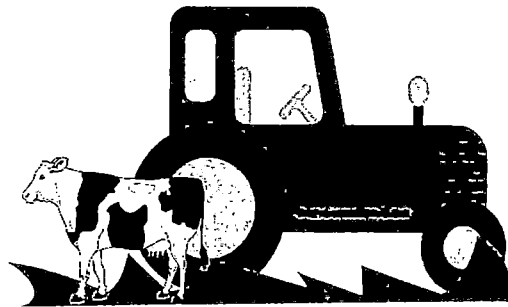
Food supply problems cause malnutrition.

Top contributors to climate change:

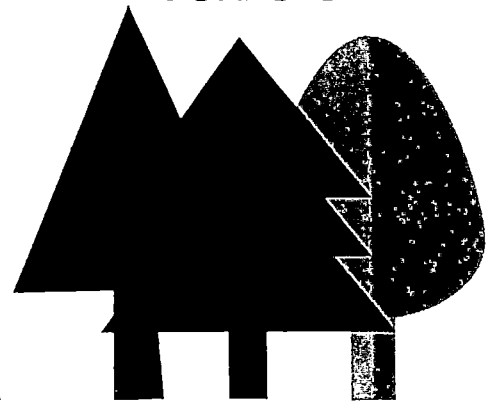
TRANSPORTATION



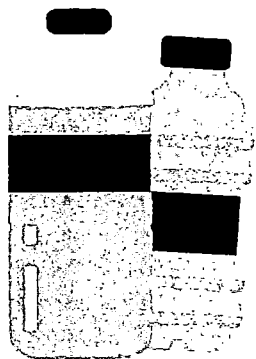
AGRICULTURE & LIVESTOCK FARMING



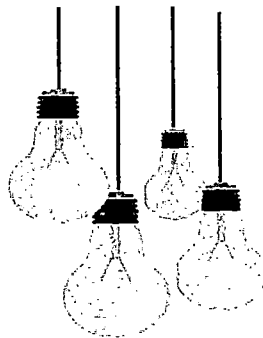
DESTRUCTION OF FORESTS



PLASTIC PRODUCTION & INDUSTRY



ELECTRICITY PRODUCTION



(EPA 2017)

COMMERCIAL & RESIDENTIAL USE



Each family can make a difference.



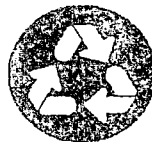
Choose locally grown food and eat less meat.



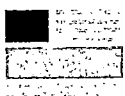
Carpool, take public transportation, walk, or bike.



Plant trees and support local parks and green spaces.



Bring reusable bags when you shop and reduce the use of plastics.



Encourage laws that reduce carbon emissions.



Support local climate and health preparedness programs.



Choose companies that use clean energy from the wind and sun.

Artificial Turf & Children's Health

Synthetic or artificial turf is a multi-layer product used as a surface on athletic playing fields, golf courses, and residential lawns.

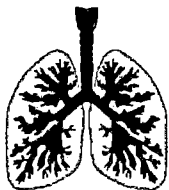
It typically consists of:

- A top layer of fibers usually made of nylon, polypropylene, or polyethylene designed to mimic natural grass blades.
- Infill that provides cushioning and serves as a base for the blades.
- A backing layer to which the blades are sewn.
- A drainage layer, and additional padding layers in some applications.
- Additional padding layers in some applications.

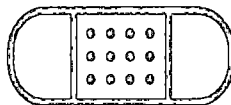
Artificial turf poses a health risk to children through chemical exposures.

Chemicals known to be carcinogenic such as heavy metals, volatile organic compounds (e.g. benzene), polycyclic aromatic hydrocarbons, and 1,3-butadiene have been detected in turf infill made from recycled tires. Further study is needed to characterize the complete chemical composition of infill made from materials other than tires.

Exposure can happen through:



Inhalation of off gassed chemicals and particulates

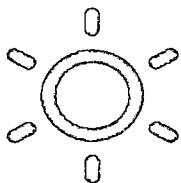


Dermal contact and absorption through the skin or open wounds



Ingestion of turf infill particles

Non-chemical exposures of concern to children are...



Heat: turf surface temperatures can get up to 55°F higher than grass, and recorded as high as 200°F on a summer day



Turf burn: playing on artificial turf has been shown to result in more skin abrasions than grass

Tips for safer play on artificial surfaces.



Avoid use on very hot days

To prevent injury, make sure that fields are properly maintained

Ensure indoor fields are well-ventilated

Avoid use for passive activities (i.e. sitting, lounging, picnicking)

Monitor young children to prevent accidental ingestion of the infill

Avoid walking with bare feet

Wash hands before eating, drinking, or touching mouth.

Clean cuts and abrasions immediately

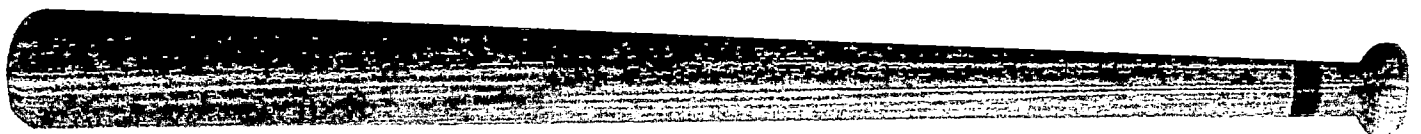
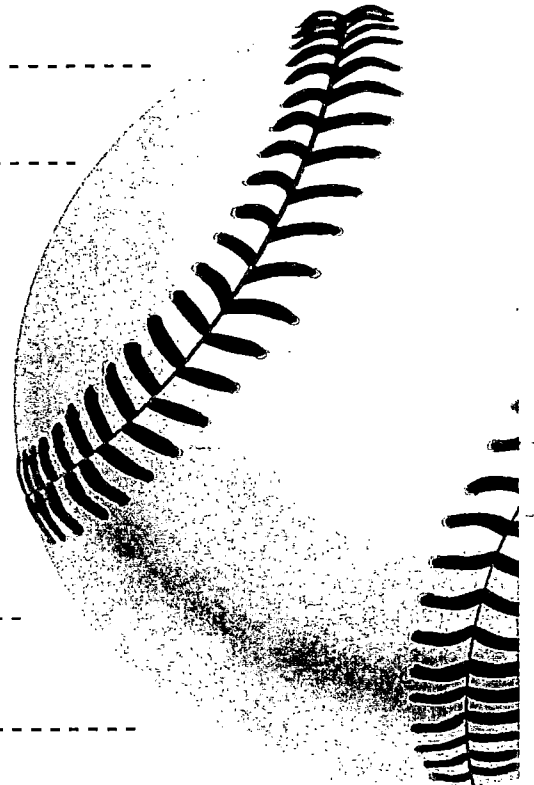
Brush hair thoroughly after play

Remove and clean shoes and gear outside before getting in car or returning home

Take off shoes and shake out equipment and clothes outside or over the garbage before entering your home


Shower immediately after playing on artificial turf


Vacuum any infill that comes into your home





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BPA and Phthalates

Bisphenol A (BPA) and phthalates are chemicals that are added to some plastics and products. These chemicals seep into food and beverages and accumulate in house dust.

BPA and phthalates are found in many everyday products.

You may be exposed to BPA or phthalates by:

Heating plastic products in the microwave or dishwasher.

Drinking water from a pipe or hose containing PVC.

Sucking or chewing items that contain vinyl such as toys or other soft plastic products.

Taking some medications with a time release coating.

Drinking beverages from #3 or #7 recycling symbols and some aluminum cans.

Using products that contain fragrance.

Through application of some dental sealants.

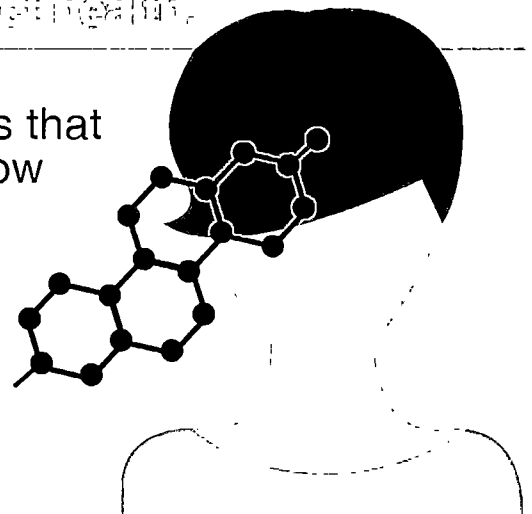
Eating certain canned and processed foods, and high fat meats, and dairy.

Handling thermal paper such as cash register receipts.

BPA and phthalates can affect health.

BPA and phthalates interfere with hormones that are naturally found in the body and affect how some organ systems work.

These chemicals may affect reproductive organs and increase risk of certain cancers, asthma, obesity, and developmental disorders.



It is easy to reduce exposure to BPA and phthalates

Check the symbol on the bottom of plastic items.

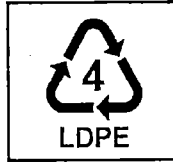
Choose safer plastics:



PETE
Polyethylene terephthalate



HDPE
High-density polyethylene

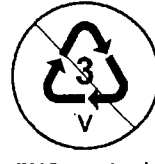


LDPE
Low-density polyethylene



PP
Polypropylene

Plastics to avoid:



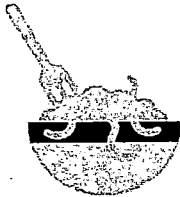
V
PVC or vinyl
Can contain phthalates



PS
Polystyrene
Foam



Other
Can contain Bisphenol A
Polycarbonate



Avoid heating plastic containers.



Avoid #3, 6, and 7 plastics and products labeled vinyl or PVC. Choose stainless steel or glass.



Choose fragrance-free products.



Avoid canned, processed or packaged foods. Choose fresh or frozen.



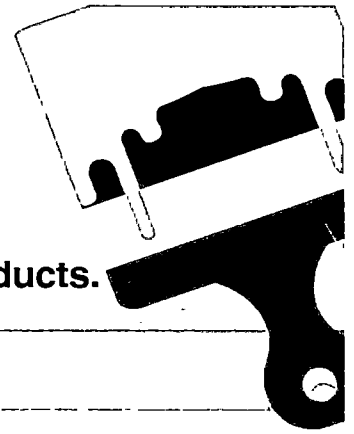
Opt for e-receipts instead of paper.



Reduce dust by wet mopping or vacuuming with a HEPA filtered vacuum.

Lead and Children's Health

Lead is a naturally occurring metal formerly used in many products.



Today, lead can be found in...

Lead-based paint used in old homes, toys and furniture, lead pipes or solder, and some imported products.

Lead is harmful to children's health.

Children are susceptible to lead through dust, paint chips, soil, and contaminated water.

Lead exposure causes:



Behavioral and developmental problems



Gastrointestinal issues



Neurological issues

Lead exposure can be prevented.

Have your home inspected for lead.



Have your tap water tested.



Encourage frequent hand washing.



Prevent children from putting painted objects or paint chips in their mouths.



Reduce dust with a wet mop and HEPA filter vacuum.



Lead exposure can be treated.

Talk with your pediatrician about lead risk factors, especially if you have children 6 years and under. Children who are on Medicaid, living in poverty, foreign born children, and children living in older housing are at higher risk of lead exposure and blood lead screening may be warranted.



Identify and remove or contain sources of exposure

Contract a licensed professional to prevent further exposure to children.



Eat a diet high in iron, calcium, and vitamin C

Food with these minerals include milk, yogurt, green leafy vegetables, beans, cereal, and oranges.

Medical interventions

Medications that remove lead from the body can be used if blood levels are 45 mcg/dL or higher.



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What to Know about Genetically Modified Organisms (GMOs)

GMOs are organisms in which the genetic material (DNA) has been altered in a way that does not occur naturally to generate products with preferred traits for producers or consumers.

75%
of processed foods on U.S. grocery store shelves have genetically modified ingredients

-  92% corn
 -  94% cotton
 -  94% soybeans
 -  95% sugar beets
- } in the U.S. are genetically engineered.



Some plants are genetically modified to be resistant to weed killers, or herbicides.

Since these crops are not killed by herbicides, farmers can apply even more chemicals to their fields to control weeds.

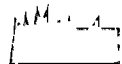




Over time, weeds become herbicide resistant "superweeds" that require greater amounts and stronger chemicals. This is called the "pesticide treadmill".

As a result, more chemicals travel on products that reach consumers.



Chemicals found in herbicides can pose a health risk, especially to children

-  Children are more likely to play in areas that expose them to chemicals, like the floor or lawn
-  Children's brains and immune systems are still developing
-  Exposure may cause neurological and developmental damage to children

Simple Steps to Avoid GMOs



Check labels. GMOs are not required to be labeled. Instead, look for these non-GMO labels.



Shop at farmers markets. Ask your local producers if they use genetically modified seeds.



Grow your own produce. Start at home or join a community garden.




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Asbestos

Asbestos is a group of natural fibers banned in some products in the U.S. due to its harmful health effects, including cancer.

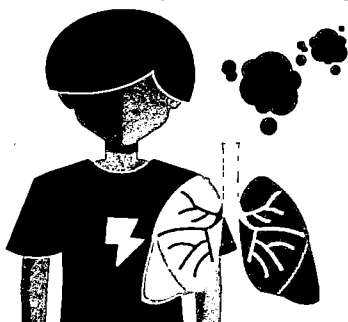
Before the 1980s asbestos was used in many building products.

Asbestos can be released into the air during demolition, renovation, or maintenance. Fibers can be brought home on clothing by those in certain jobs, especially construction.



Breathing in asbestos is harmful.

Asbestos-related diseases, such as cancers or lung scarring, are typically seen in people who breath in very high amounts of asbestos (like from a job working with asbestos) over many years. These diseases take decades to develop.



The health risk of a small, brief exposure to asbestos is extremely low.

It is important that anyone exposed to asbestos avoid tobacco smoke. Tobacco smoke multiples the risk for lung cancer in a person also exposed to asbestos.

Asbestos exposure can be prevented.

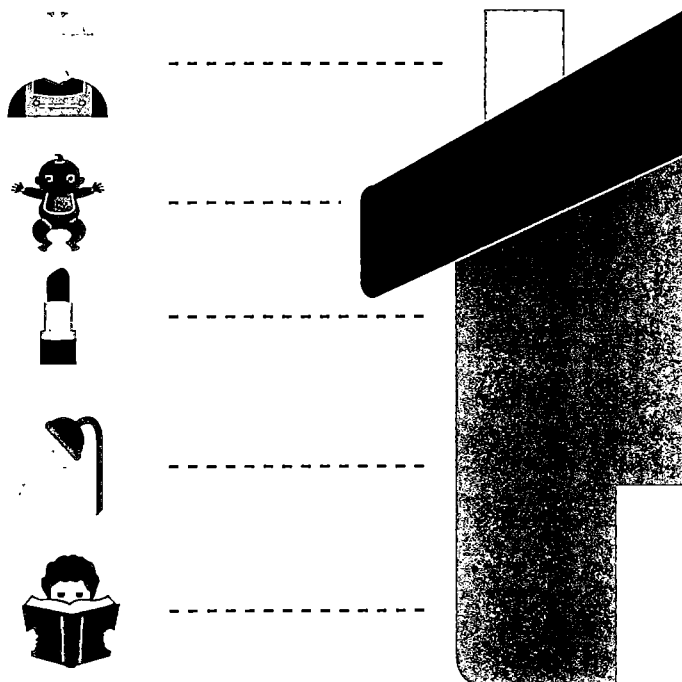
If you think your home has asbestos, have an asbestos-certified inspector evaluate and recommend next steps (encapsulate, remove). If work needs to be done, hire an asbestos-certified contractor to deal with the asbestos in a safe way.

Never let children play where asbestos is exposed or near renovation or demolition work.

Avoid use of talcum-based powders and cosmetics due to the small risk of contamination with asbestos fibers.

Anyone who works with asbestos material (construction/demolition, firefighting, shipyard worker) should be careful not to carry any asbestos home with them – showering, changing clothes and shoes are important steps before going home.

Schools are required to have asbestos management plans, and address asbestos under strict federal regulations (called AHERA). You can request to review your school's asbestos plan.



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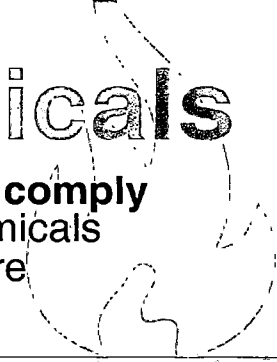
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Flame Retardant Chemicals

Flame retardant chemicals are added to many products to comply with fire regulatory standards. However, many of these chemicals have not been proven to be effective at preventing fires, and are associated with health risks.



Flame retardant chemicals are found in many everyday items.



Children's Sleepwear



Upholstered Furniture



Electronics



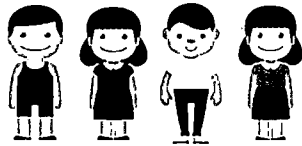
Baby products (e.g. car seats, changing pads, crib mattresses)



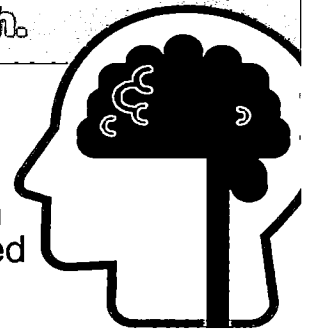
Mattresses

Flame retardant chemicals can harm your health.

Flame retardant chemicals are released from items that contain them and accumulate in dust. They can stay in the environment or in the body for years.



These chemicals may have adverse effects on the developing brain. Children who are exposed may have an increased risk of cognitive or behavioral problems.

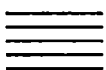
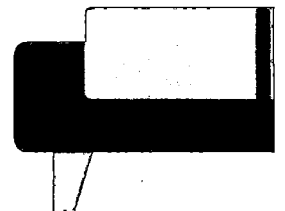


Reducing exposure to flame retardant chemicals:



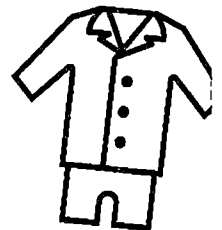
Reduce dust by wet dusting, wet mopping, and vacuuming with a HEPA filter vacuum. Wash hands frequently, especially before eating, and ventilate indoor spaces.

Choose naturally flame retardant materials like wool and polyester. Upholstered items with the **TB117-2013 label** do not require flame retardant treatment, however, contact the manufacturer to be sure.



Prevent children's exposure by supporting legislation to eliminate the use of toxic flame retardants. Replace, repair, or cover furniture with exposed foam to ensure the safety of children.

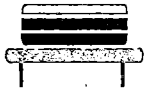
Choose cotton snug fit sleepwear and avoid those that are labeled flame resistant.



Formaldehyde and Children's Health

Formaldehyde is a chemical that is known to cause cancer in humans.

Common sources of formaldehyde exposure:



Manufactured wood products



Hair straighteners and cosmetics



Paints and adhesives



Smoke and exhaust



Fabric finish

Formaldehyde exposure is bad for your health.

Low exposure

Burning sensation in the eyes, nose, and throat
Coughing, wheezing
Nausea
Skin irritation

Repeated exposure

Bronchitis
Skin allergies, rashes
Asthma-like allergies like coughing, wheezing, chest tightness

Prolonged exposure

Nasal or sinus cancers
Leukemia

Formaldehyde exposure can be prevented.

- Choose low volatile organic compounds (VOC) paints and adhesives.
- Open windows or use a fan to ventilate rooms, especially when painting.
- Ensure fireplaces and wood stoves are not leaking exhaust inside the house.
- Wash new clothing and bedding and avoid wrinkle-free fabrics.
- Purchase solid wood furniture and air out items containing manufactured wood before bringing into your home.
- Do not smoke.



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