



Children's
Environmental
Health Network



National Healthy Homes
Training Center
and Network



Eco-Healthy
Child Care®



**Eco-Healthy
Child Care[®]**

Train the Trainer

Presenter Name
Month Year



OVERVIEW

- Pre-test
- Intro
- Environmental Hazards
- Eco-Healthy Child Care[®]
- Using EHCC
- Evaluation and Post-test





Children's Environmental Health Network



Mission:

To protect the developing child from environmental hazards and promote a healthy environment.

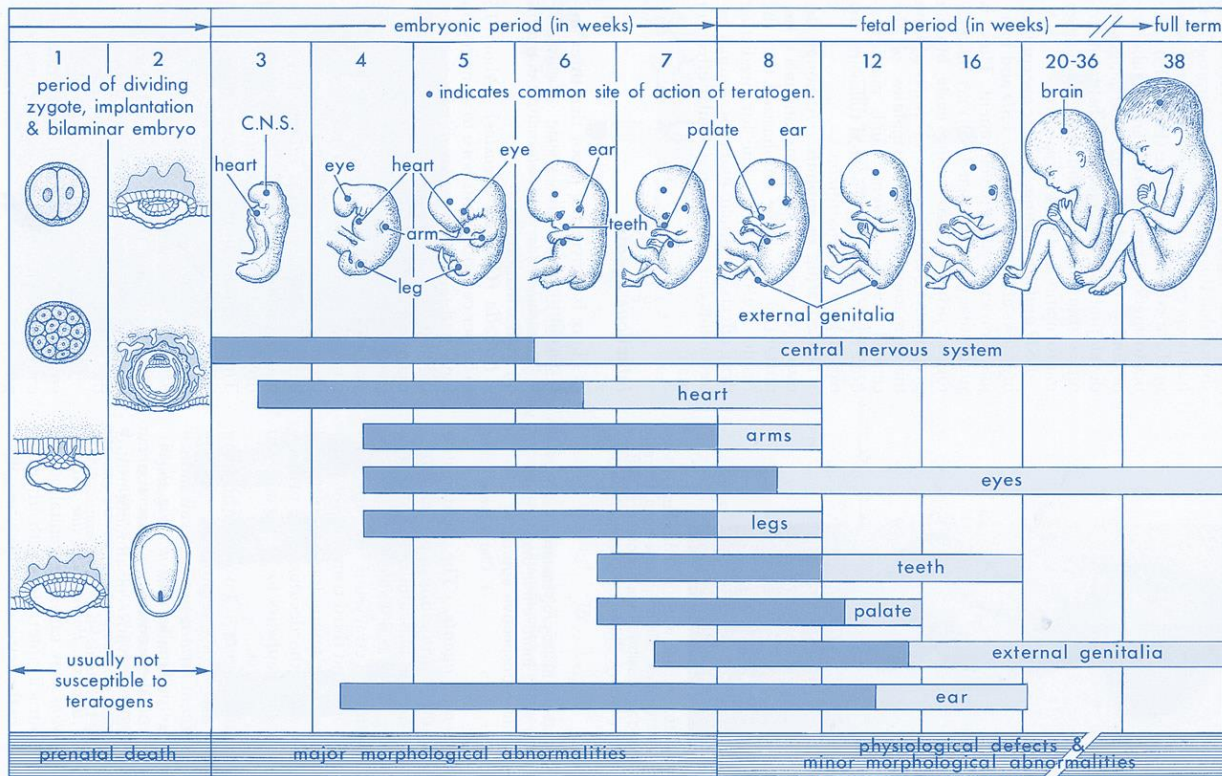


CHILDREN ARE NOT JUST “LITTLE ADULTS”

- Food, water, air
- Behavior
- Immature systems



Windows of Susceptibility



WHY FOCUS ON CHILDREN?

- particularly vulnerable
- life-long damage



ENVIRONMENTAL HEALTH:

- 85,000 chemicals
- Inadequate testing
- Found in our bodies
- Inadequately regulated



IMPACT?

Some categories of
chemicals are of concern



HOW ARE CHILDREN EXPOSED?

- Ingestion
- Inhalation
- Skin, Eye
- Pre-natal



ASTHMA

- Leading cause of school absenteeism
- 9.6%
 - ◆ 17% of African American children
- [insert state specific stats]

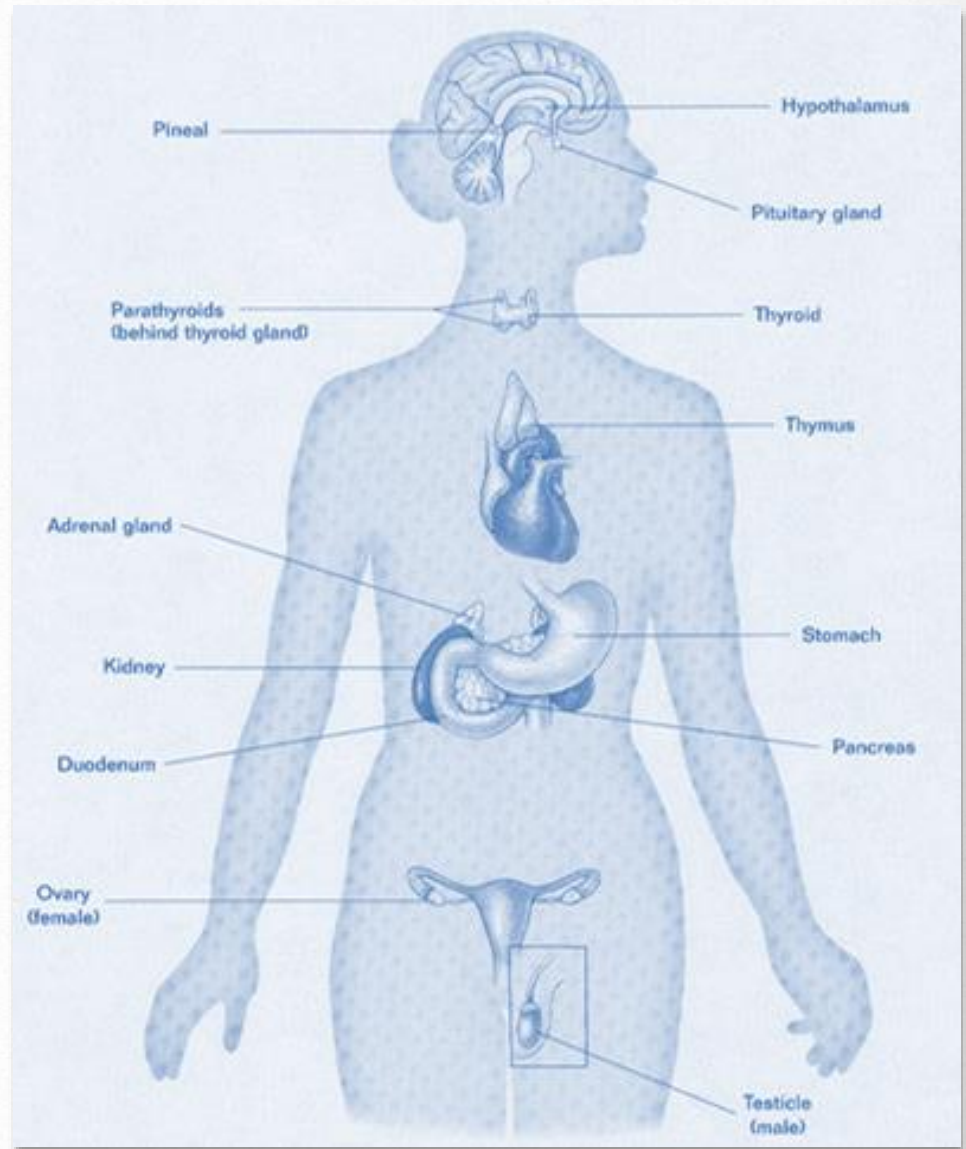


LEARNING DISABILITIES

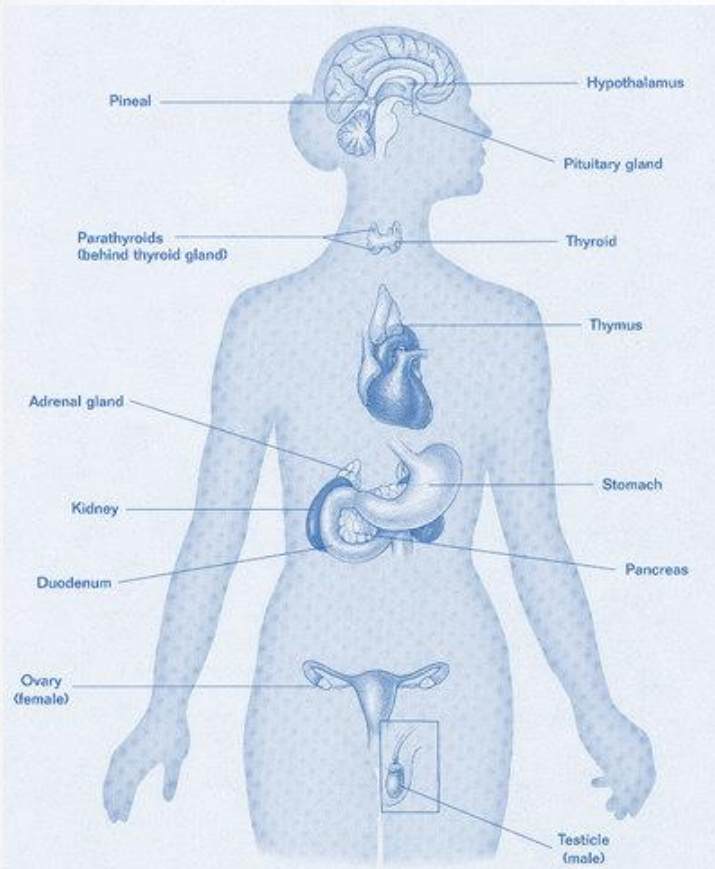
- Increased 191% from 1977 to 1994
- Autism:
 - ◆ 1 in 88 (2008)
 - ◆ Up from 1 in 700 children



High School Biology...



ENDOCRINE (HORMONE) SYSTEMS



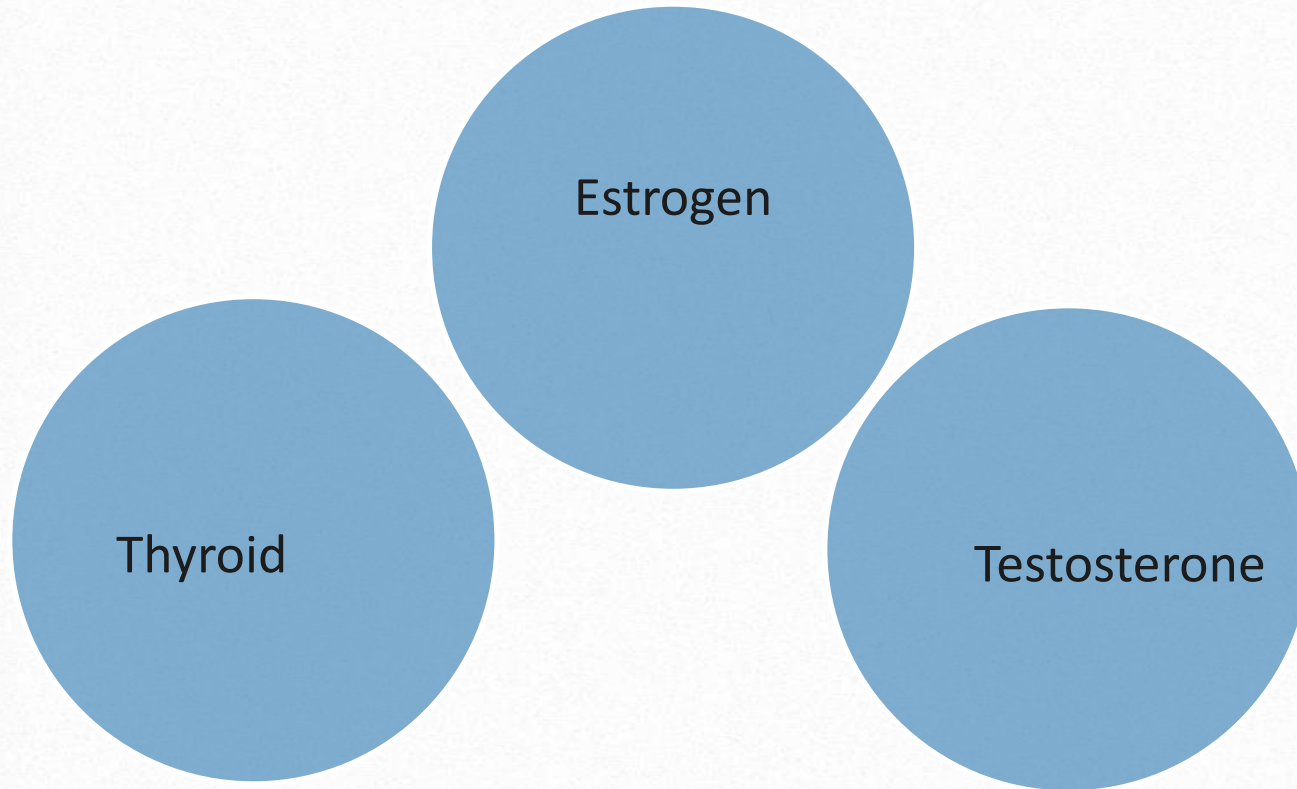
Thyroid

Ovary

Testes



ENDOCRINE (HORMONE) DISRUPTION



EMERGING SCIENCE:

- Example: Air Pollutants
- Asthma
- Fetal lung
- DNA damage
- Cardiac birth defects
- SIDS
- Lung function growth



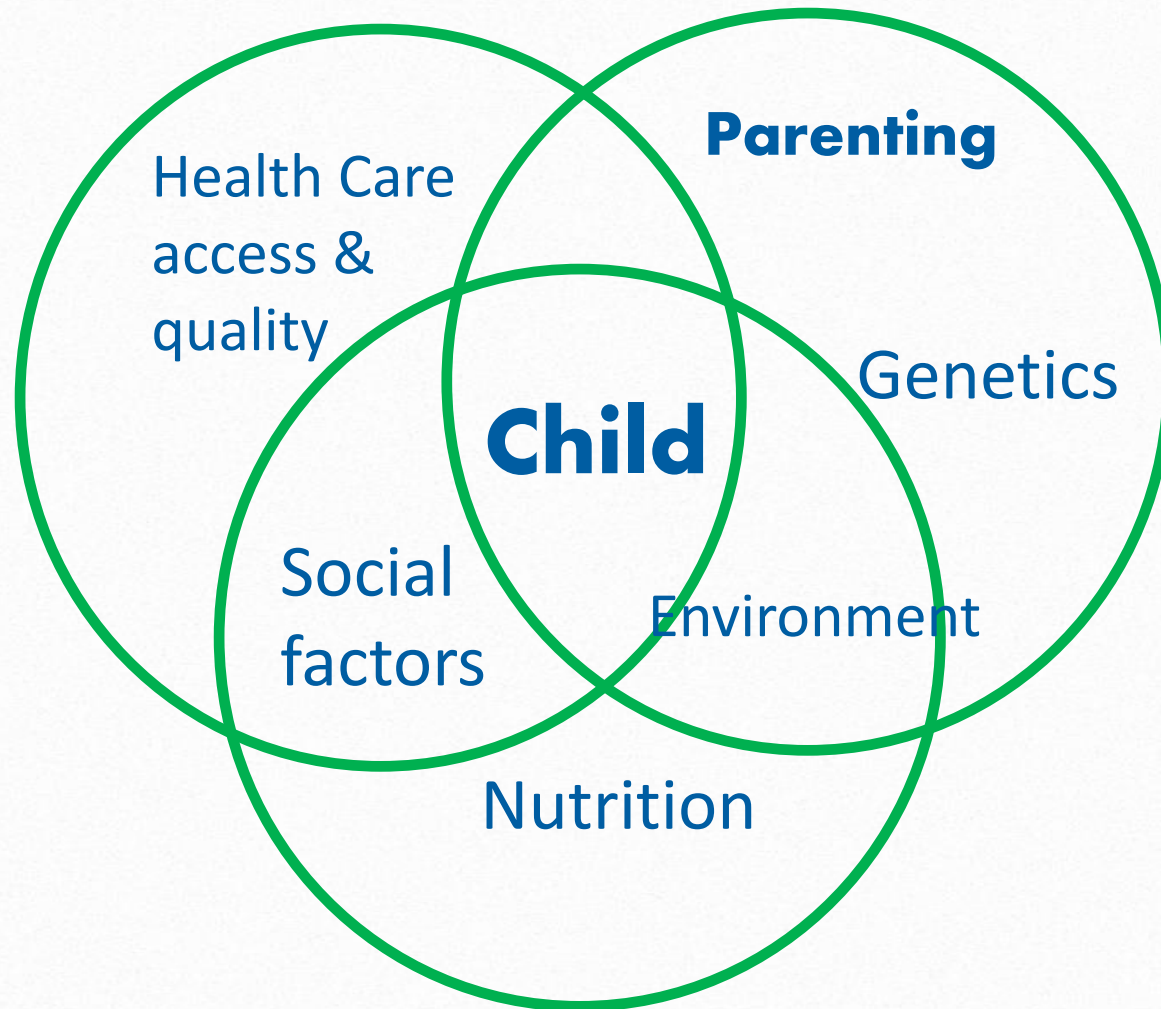
EMERGING SCIENCE :

Air Pollutants

Lower IQ, poorer
working memory



Is The Environment To Blame?



IS THE ENVIRONMENT TO BLAME?

- Is it the cause of all woes?
 - ◆ No
- Does it play a role?
 - ◆ Yes



CHILDREN'S ENVIRONMENTAL HEALTH

Environment plays a role

Exposures increase cancer risk
decades later



WHAT TO DO?

Take steps to protect children



CHILD CARE

- 60 % of children are in child care
- Up to 40 hours per week



ENVIRONMENTAL HEALTH IN CHILD CARE

Rarely addressed by:

Professional
Development

Accreditation

Licensing

Quality Rating





**Eco-Healthy
Child Care[®]**

*Science-based
Award-winning*





Eco-Healthy Child Care[®]

- Checklist
- Fact Sheets
- www.cehn.org/ehcc



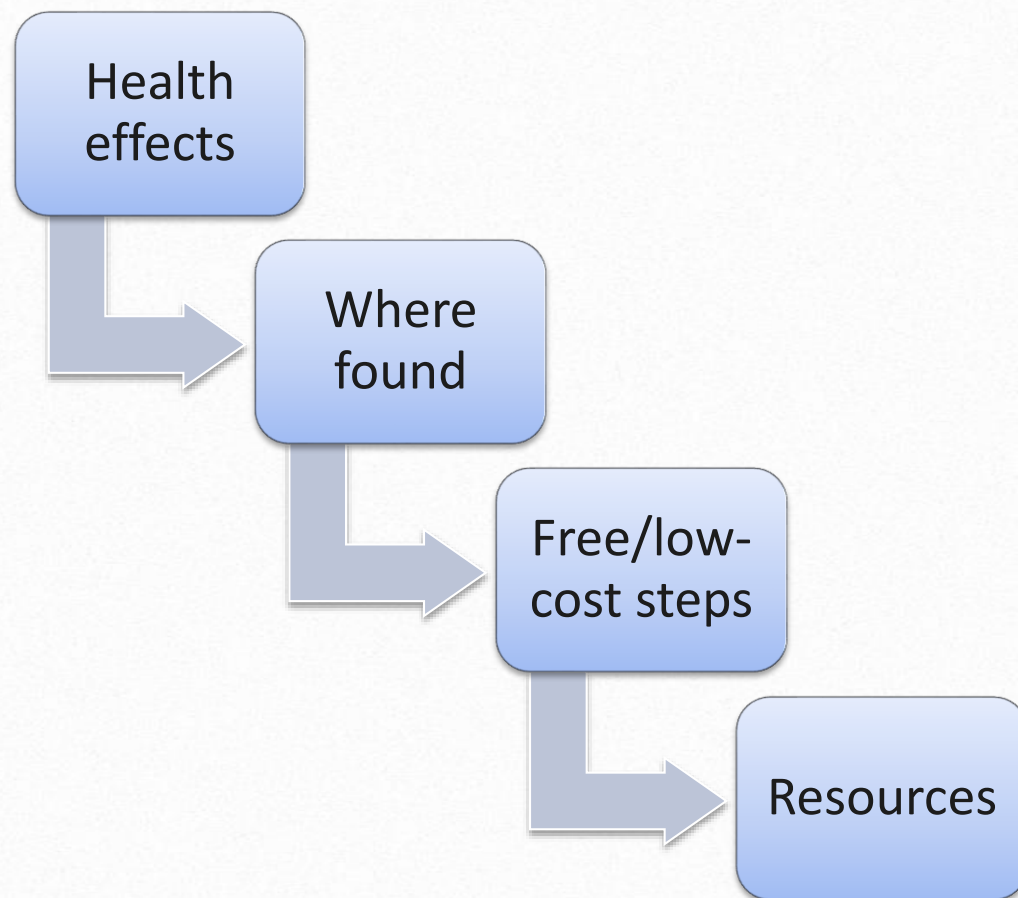
ECO-HEALTHY CHILD CARE

11 Topics

- Air Quality
- Pest Control
- Lead
- Mercury
- Furniture & Carpets
- Art Supplies
- Plastics
- Radon
- Arsenic
- Household Chemicals
- Garbage & Recycling



FOR EACH:



FOR SOME:

- ◆ Additional resources
- ◆ Adult learning



Indoor air may be a greater health risk than outdoor air

INDOOR AIR QUALITY (IAQ)



IAQ AND HEALTH

Poor IAQ

- ↓ ability

Improving IAQ

- Improves productivity
- Reduces absenteeism
- Improves health

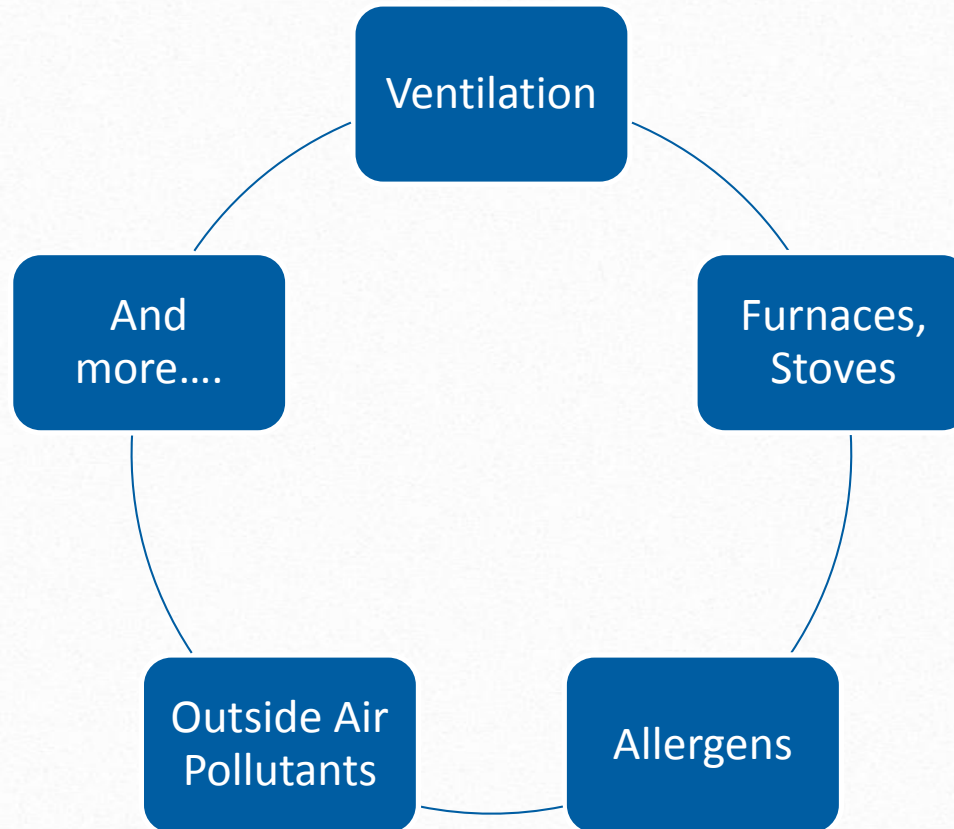


IAQ AND HEALTH

- Head off Environmental Asthma in Louisiana (HEAL)
 - ◆ 50% ↓ asthma attacks
- Baltimore: asthma symptoms
 - ◆ 34% ↓ w/HEPA air cleaner



MANY SOURCES



WHAT YOU CAN DO TO IMPROVE IAQ

- ◆ NO SMOKING
- ◆ Educate
- ◆ Identify and address
- ◆ Ventilation
- ◆ Equipment



IMPROVE IAQ

Key: Moisture control!!!

- ◆ Fix leaks
- ◆ Reduce humidity
- ◆ Maintain ventilation systems



*Brochure & Action Card from
U.S. EPA*

Make **YOUR** House



A Healthy
Home 

and more environmentally-friendly, too!



ADDITIONAL INFORMATION

Healthy Indoor Environment Protocols for Home Energy upgrades

- Share with HVAC and remodeling contractors



OUTDOOR AIR POLLUTION

Sources:

- Cars, buses, trucks
- Industry
- Utilities
- Lawnmowers, other equipment
- Wildfires



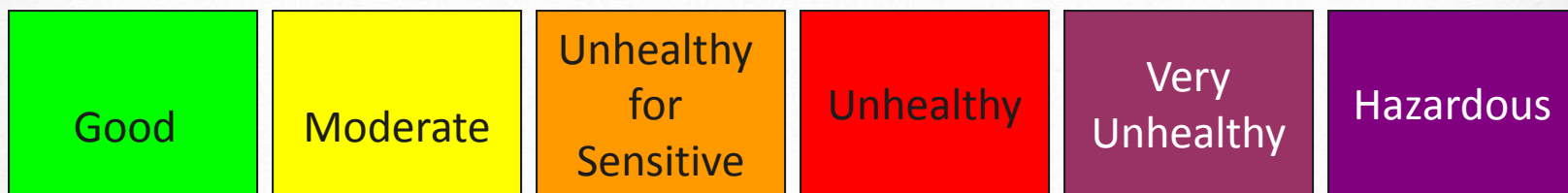
POLLUTANTS FROM MOTOR VEHICLE EXHAUST

- Diesel exhaust
 - ◆ Carcinogen
- Particulate Matter (PM)
- Ozone, particulates
- High exposure: < 500 feet from traffic



WHAT YOU CAN DO:

- ◆ Check Air Quality Index (AQI) daily
- ◆ Avoid strenuous outdoor activities -- or stay indoors



www.epa.gov/airnow



WHAT YOU CAN DO

- Reduce Idling
- HVAC system
- Windows
- Outside air intakes
- Play areas



WHAT YOU CAN DO:

- ◆ Tell your elected officials to protect health



MOM'S CLEAN AIR FORCE

ON-LINE *ASTHMA TRIGGERS GUIDE*

- Eliminating asthma triggers
- Air quality standards
- www.cehn.org/ehcc/resources
- Under “Air Quality”



CHECKLIST: AIR QUALITY (1)

3. We avoid conditions that lead to excess moisture, because moisture contributes to the growth of mold and mildew. We maintain adequate ventilation (suitable fans or open screened windows). We repair water leaks and keep humidity within a desirable range (30-50%).

4. We do not allow cars or other vehicles to idle in our designated parking areas.



CHECKLIST: AIR QUALITY (2)

5. We do not use scented or unscented candles or air fresheners.

6. During operating hours, we do not permit smoking anywhere on the premises or in sight of children. (Note: For the healthiest environment for children and staff, smoking should not be allowed on the premises at any time). **REQUIRED**



PEST CONTROL / PESTICIDES

- Designed to kill
- Persist
- Air, soil and water
- Fruits, vegetables, and water
- Inside and outside



PESTICIDE HEALTH EFFECTS

- Links to
 - childhood leukemia
 - Parkinson's disease
 - cancer
 - hormone disruption
 - lower IQ



WHAT YOU CAN DO

- Wash fruits and vegetables
 - Organic when possible
 - Avoid pesticides



WHAT YOU CAN DO



www.ewg.org/foodnews/

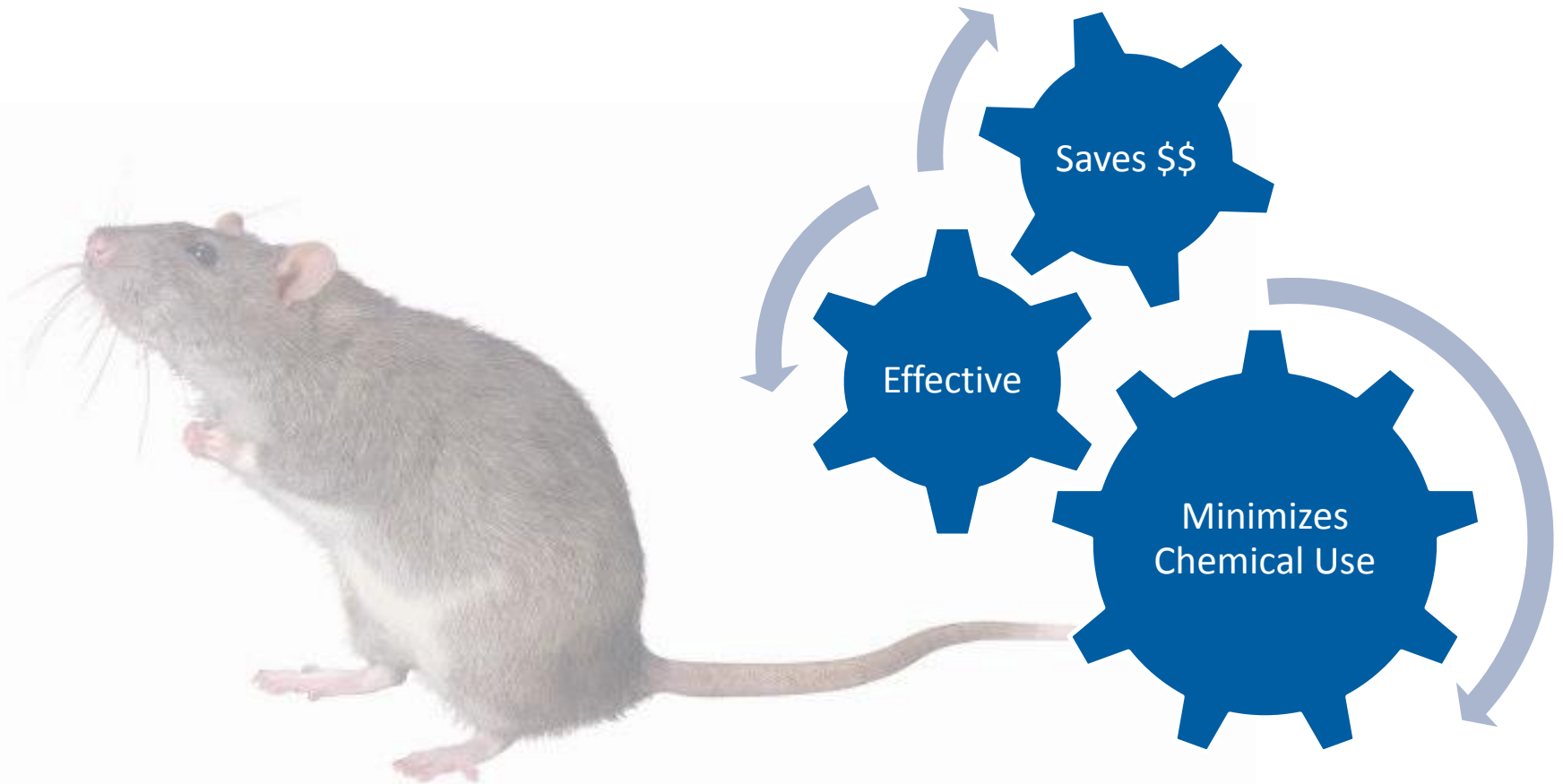


HOW?

- ◆ Clean and dry
- ◆ Caulk cracks and holes
- ◆ Pesticides as a last resort



INTEGRATED PEST MANAGEMENT (IPM)



IPM RESOURCES

- Extension IPM programs
- [insert state specific info]
- Many excellent resources:
 - ◆ www.cehn.org/ehcc/resources
 - ◆ www.epa.gov/childcare



WHAT YOU CAN DO

If you have to apply pesticides

Advance
notice

Children
not
present

Properly
label and
store

READ and
FOLLOW
directions



CHECKLIST:

PESTICIDES & PEST PREVENTION (1)

1. We use non-toxic techniques both inside and outside the facility to prevent and control pests (both insects and weeds). If a serious threat remains and pesticide application is the only viable option, parents and staff are notified in advance and a licensed professional applies the least toxic, effective product at a time when children will have the least exposure to the application area for at least 12 hours (see manufacturer's instructions to ensure 12 hours is enough time).
REQUIRED



CHECKLIST:

PESTICIDES & PEST PREVENTION (2)

2. We thoroughly wash all fruits and vegetables to avoid possible exposure to pesticides, and we take the opportunity to educate children about the importance of doing so.



Household Cleaning Chemicals

Can be harmful to children

Your challenge:
clean AND healthy



WHEN TO “CLEAN” VS WHEN TO DISINFECT

- Follow the regulations
- Least toxic chemical



WHEN TO 'CLEAN' VS WHEN TO DISINFECT?

To clean safely, know how you need to clean



Green Cleaning, Sanitizing, and Disinfecting:
A Curriculum for Early Care and Education



This Green Cleaning, Sanitizing, and Disinfecting Toolkit for Early Care and Education was developed by the University of California, San Francisco School of Nursing's Institute for Health & Aging, University of California, Berkeley's Center for Environmental Research and Children's Health, and Informed Green Solutions, with support from the California Department of Pesticide Regulation.



Bleach:

In brief:

Use
Appropriately;
Refresher Courses

EPA Registered
Unscented
Product

New higher
concentration



PRINCIPLES OF CLEANING FOR HEALTH

- Keep dirt out
- Third-party certified
- All-purpose cleaners
- Disinfect target areas
- Maintain Equipment



BETTER CLEANING EQUIPMENT

- Walk-off mats
- Microfiber
- HEPA vacuums or microfiber mops
- High-filtration vacuum attachments



WHAT YOU CAN DO

- Limit eating and drinking
- When cleaning
 - ◆ Children are not in the area
 - ◆ Open windows
 - ◆ Protective gear



WHAT YOU CAN DO

Safety
Data
Sheets
(SDS)

- VOC content 1% or less
- 5 – 9 pH





The Clorox Company
1221 Broadway
Oakland, CA 94612
Tel. (510) 271-7000

Material Safety Data Sheet

I Product: CLOROX REGULAR-BLEACH		
Description: CLEAR, LIGHT YELLOW LIQUID WITH A CHARACTERISTIC CHLORINE ODOR		
Other Designations	Distributor	Emergency Telephone Nos.
Clorox Bleach EPA Reg. No. 5813-50	Clorox Sales Company 1221 Broadway Oakland, CA 94612	For Medical Emergencies call: (800) 448-1014 For Transportation Emergencies Chemtrec (800) 424-9300

II Health Hazard Data	III Hazardous Ingredients									
<p>DANGER: CORROSIVE. May cause severe irritation or damage to eyes and skin. Vapor or mist may irritate. Harmful if swallowed. Keep out of reach of children.</p> <p>Some clinical reports suggest a low potential for sensitization upon exaggerated exposure to sodium hypochlorite if skin damage (e.g., irritation) occurs during exposure. Under normal consumer use conditions the likelihood of any adverse health effects are low.</p> <p>Medical conditions that may be aggravated by exposure to high concentrations of vapor or mist: heart conditions or chronic respiratory problems such as asthma, emphysema, chronic bronchitis or obstructive lung disease.</p> <p>FIRST AID: <u>Eye Contact:</u> Hold eye open and rinse with water for 15-20 minutes. Remove contact lenses, after first 5 minutes. Continue rinsing eye. Call a physician. <u>Skin Contact:</u> Wash skin with water for 15-20 minutes. If irritation develops, call a physician. <u>Ingestion:</u> Do not induce vomiting. Drink a glassful of water. If irritation develops, call a physician. Do not give anything by mouth to an unconscious person. <u>Inhalation:</u> Remove to fresh air. If breathing is affected, call a physician.</p>	<table border="1"> <thead> <tr> <th>Ingredient</th> <th>Concentration</th> <th>Exposure Limit</th> </tr> </thead> <tbody> <tr> <td>Sodium hypochlorite CAS# 7681-52-9</td> <td>5 - 10%</td> <td>Not established</td> </tr> <tr> <td>Sodium hydroxide CAS# 1310-73-2</td> <td><1%</td> <td>2 mg/m³ 2 mg/m³</td> </tr> </tbody> </table> <p>¹ACGIH Threshold Limit Value (TLV) - Ceiling ²OSHA Permissible Exposure Limit (PEL) - Time Weighted Average (TWA)</p> <p>None of the ingredients in this product are on the IARC, NTP or OSHA carcinogen lists.</p>	Ingredient	Concentration	Exposure Limit	Sodium hypochlorite CAS# 7681-52-9	5 - 10%	Not established	Sodium hydroxide CAS# 1310-73-2	<1%	2 mg/m ³ 2 mg/m ³
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IV Special Protection and Precautions	V Transportation and Regulatory Data
<p>No special protection or precautions have been identified for using this product under directed consumer use conditions. The following recommendations are given for production facilities and for other conditions and situations where there is increased potential for accidental, large-scale or prolonged exposure.</p> <p>Hygienic Practices: Avoid contact with eyes, skin and clothing. Wash hands after direct contact. Do not wear product-contaminated clothing for prolonged periods.</p> <p>Engineering Controls: Use general ventilation to minimize exposure to vapor or mist.</p> <p>Personal Protective Equipment: Wear safety goggles. Use rubber or nitrile gloves if in contact liquid, especially for prolonged periods.</p> <p>KEEP OUT OF REACH OF CHILDREN</p>	<p>DOT/IMDG/IATA: Not restricted.</p> <p>EPA - SARA TITLE III/CERCLA: Bottled product is not reportable under Sections 311/312 and contains no chemicals reportable under Section 313. This product does contain chemicals (sodium hydroxide <0.2% and sodium hypochlorite <7.35%) that are regulated under Section 304/CERCLA.</p> <p>TSCA/DSL STATUS: All components of this product are on the U.S. TSCA Inventory and Canadian DSL.</p>

VI Spill Procedures/Waste Disposal	VII Reactivity Data
<p>Spill Procedures: Control spill. Contain/neutralize liquid and use absorbents on residual liquid; dispose appropriately. Wash area and let dry. For spills of multiple products, responders should evaluate the MSDS's of the products for incompatibility with sodium hypochlorite. Breathing protection should be worn in enclosed, and/or poorly ventilated areas until hazard assessment is complete.</p>	<p>Stable under normal use and storage conditions. Strong oxidizing agent. Reacts with other household chemicals such as toilet bowl cleaners, rust removers, vinegar, acids or ammonia containing products to produce hazardous gases, such as chlorine and other chlorinated species. Prolonged contact with metal may cause pitting or discoloration.</p>



II Health Hazard Data

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Skin Contact: Wash skin with water for 15-20 minutes. If irritation develops, call a physician.

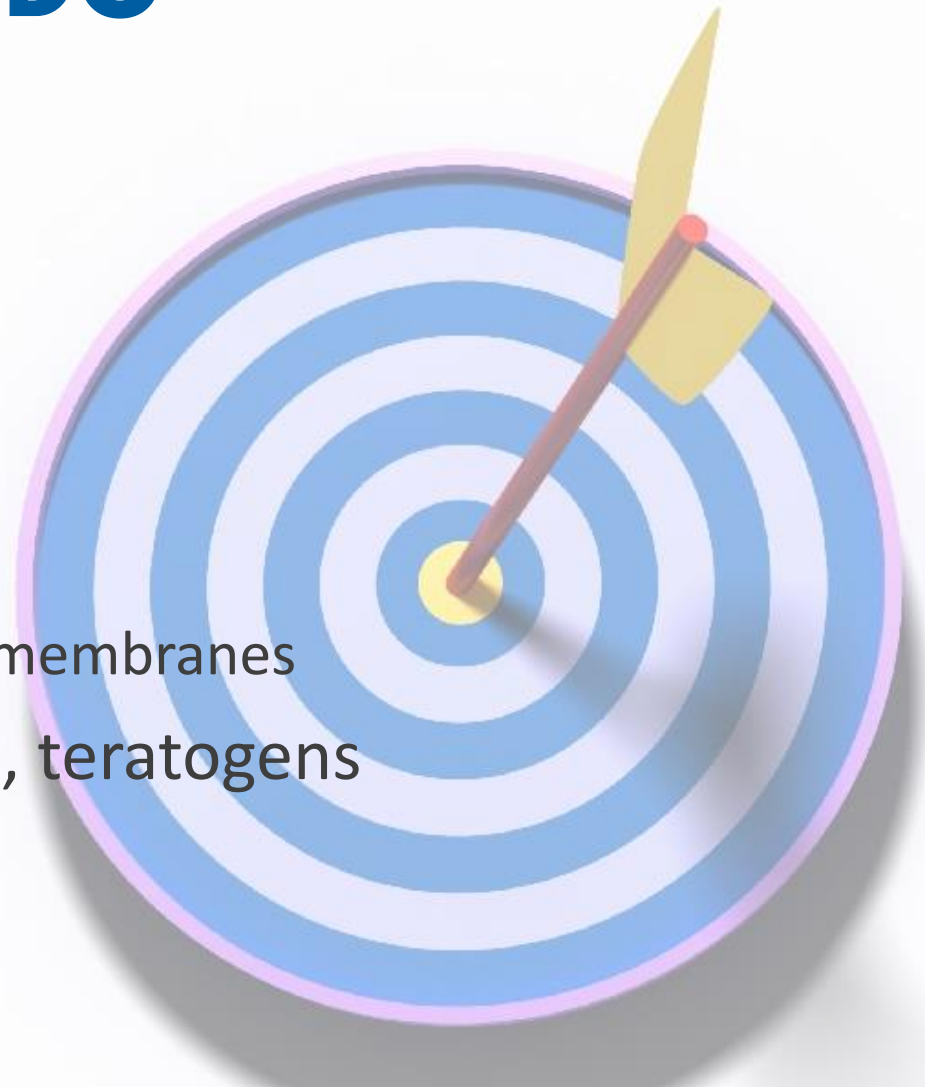
Ingestion: Do not induce vomiting. Drink a glassful of water. If irritation develops, call a physician. Do not give anything by mouth to an unconscious person.

Inhalation: Remove to fresh air. If breathing is affected, call a physician.



WHAT YOU CAN DO

- Avoid
 - ◆ Aerosols
 - ◆ Flammable
 - ◆ Corrosive
 - Burn eyes, skin, mucus membranes
 - ◆ Carcinogens, mutagens, teratogens



THIRD PARTY CERTIFIERS

- Find and use certified 'green' products
- Green-washing
- Third party certifiers evaluate products



THIRD PARTY CERTIFIERS:

www.greenseal.org



www.ecologo.org



CHECKLIST: HOUSEHOLD CHEMICALS

7. We use unscented, biodegradable, non-toxic cleaning products and least-toxic disinfecting and sanitizing products. When disinfectants and sanitizers are required, they are used only for their intended purpose and in strict accordance with all label instructions.

8. We use chlorine bleach only when and where it is required or recommended by state and local authorities. We use it prudently and never use more than necessary.

9. We do not use aerosol sprays of any kind.

10. We use only low-VOC (Volatile Organic Compounds) household paints and do not paint when children are present.



Common: Past Contamination & Present Products

LEAD



MAJOR SOURCES OF LEAD

- Paint and dust
- Soil
- Water
- Other



LEAD: HEALTH EFFECTS

- Harms brain
- May cause cancer
- **No safe level**



CHILDREN AT RISK

- Behavior
- No symptoms
- Prevent
- Test BLL



LEAD: WHAT YOU CAN DO, PART 1

Test children



Test facilities



Clean and maintain



Cold water



LEAD: WHAT YOU CAN DO, PART 2

Doormats



Shoe-free



Avoid vinyl



Wash hands with soap often



LEAD: PAINTING OR RENOVATING?

US EPA Lead renovation rule



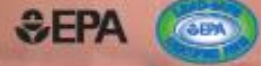
THE LEAD-SAFE CERTIFIED GUIDE TO RENOVATE RIGHT

WARNING
LEAD WORK AREA
POISON
NO SMOKING
OR EATING

CAUTION CAUTION CAUTION CAUTION CAUTION CAUTION CAUTION


EPA
1-800-424-LEAD (5323)
epa.gov/lead/safe
EPA-704-K-10-001
Revised September 2011

Important lead hazard information for
families, child care providers and schools.



This document may be purchased through the U.S. Government Printing Office and may be at
bookstore.gpo.gov or by phone (toll-free) 1-866-512-1800.



CHECKLIST: LEAD (1)

11. We use only cold water for drinking, cooking and making baby formula, we flush all cooking and drinking outlets after long periods of non-use, and we clean debris from our outlet screens or aerators on a regular basis. If we suspect that there could be lead in our drinking water, we have our water tested and, if appropriate, use water filtration devices that have been certified to remove lead for additional treatment of drinking water at the outlet. REQUIRED

12. Our facility was built after 1978 — OR — our facility was built before 1978, and we have tested our paint (indoors and outdoors) for lead. We keep the building free of flaking or peeling paint and regularly wash all areas around doors and windows. We use lead safe practices when painting or renovating our facility, and we have visited www.epa.gov/lead to learn more.



CHECKLIST: LEAD (2)

13. To avoid possible lead exposure, we do not use imported, old or handmade pottery to cook, store or serve food or drinks.

14. To reduce possible exposure to lead-contaminated dirt, we supply a rough mat at the entrance of our facility and encourage the wiping of shoes before entering — or — we are a shoe-free facility.

15. We screen our toys for lead by searching www.cpsc.gov or www.healthystuff.org/departments/toys.



MERCURY

Sources:

- Thermometers
- Thermostats
- Fluorescent lights
- Batteries
- Some fish



MERCURY

- Naturally occurring
- Toxic
- Builds up in some fish



MERCURY HEALTH CONCERNS

- Most vulnerable:
 - ◆ Infants
 - ◆ Children
 - ◆ Pregnant women
- Neurotoxin – Harms the brain



MERCURY: WHAT YOU CAN DO

- In Fish:
 - ◆ Mercury depends on species/ where caught
 - ◆ 8% of women have harmful mercury levels



FDA/EPA Recommendations on Fish Consumption for Children & Women of Child-Bearing Age

	Shark Swordfish King mackerel Tilefish	Albacore ('White') Tuna	Other fish species	Locally-caught fish
Women	Do not eat	6 oz max/week (1 average meal)	12 oz max/week (2 average meals) 6 oz max/week if also eating 1 meal of Albacore tuna	Check local advisories -OR- 6 oz max/week (1 average meal) & no other fish*
Young children	Do not eat	Same "but serve smaller portions"		

**if no advisory is available*

From: What You Need to Know About Mercury in Fish and Shellfish, Advice for Women Who Might Become Pregnant/ Women Who are Pregnant/ Nursing Mothers/ Young Children, brochure from the U.S. Food and Drug Administration and the U.S. Environmental Protection Agency



CONSUMER REPORTS ADVICE ON TUNA:

Per week:	White Tuna	Light Tuna
Pregnant women	None	None
Children > 45 lbs	4 oz	12.5 oz
Children < 45 lbs	<1.5 oz	<4 oz



MERCURY: WHAT YOU CAN DO TO PROTECT FROM MERCURY IN FISH

In brief:

Eat a variety of
species and not
too much

Avoid larger fish
and predator
species

If caught from
local waters,
check out fish
advisories



MERCURY: FISH ADVISORIES

www.epa.gov/mercury/advisories.htm

- Check with your state's Department of Health or Department of the Environment
- [insert state specific info/documents]



MERCURY: WHAT YOU CAN DO

On site

- Identify, eliminate, replace

Disposal

- www.earth911.com



MERCURY: WHAT YOU CAN DO

- On site:
 - ◆ Spill cleanup kit
 - ◆ **No vacuuming**
 - ◆ Keep children away



MERCURY: WHAT YOU CAN DO

- Work to reduce pollution



MAKE YOUR OWN SPILL KIT!

Level 1: Fluorescent

Level 2:
Thermometer/Thermostat



DIRECTIONS

- Follow the directions in your packet



WHAT IF . . . ??

EPA: It's OK. These are best practices



WHAT IF I'M STILL CONCERNED?

Poison control center:

- 800-222-1222

Your physician



CHECKLIST: MERCURY

16. We do not use any mercury-containing thermometers or thermostats. Instead we use digital options.

17. We securely store and recycle all used batteries and fluorescent and compact fluorescent light bulbs.



FURNITURE AND CARPETS

- ◆ Particleboard
- ◆ Permanent-press draperies
- ◆ Upholstered furniture, foam
- ◆ Wall-to-wall
- ◆ Paints, finishes



FORMALDEHYDE

Elevated levels in child cares

Allergic reactions, asthma attacks

Carcinogen



PBDEs: FLAME RETARDANTS

- Thyroid, liver
- Disrupts hormones
- Developmental delays
- Possible carcinogen



WHAT YOU CAN DO

- ◆ No exposed foam
- ◆ Limit pressed wood
- ◆ Avoid wall-to-wall
- ◆ Damp dusting and mopping.



WHAT YOU CAN DO

- ◆ Natural fiber area rugs
- ◆ “low-VOC” or “No VOC”
- ◆ Paint with caution
- ◆ Good ventilation



CHECKLIST: FURNITURE AND CARPETS (1)

18. To avoid possible exposure to flame retardants, we ensure furniture is in good condition without foam or inside stuffing exposed. Stuffed animals, matting, pillows and other foam items are also intact.

19. Furniture is made of solid wood or low-VOC (Volatile Organic Compounds) products, with few items made of particleboard. When purchasing furniture or renovating, we choose either solid wood (new or used) or products that have low VOCs.



CHECKLIST: FURNITURE AND CARPETS (2)

20. We do not have wall-to-wall carpeting where children are present.

21. Area rugs are vacuumed daily and cleaned at least twice a year and as needed using biodegradable cleaners.



ART SUPPLIES

- Exposure by:
- Inhalation
- Ingestion
- Skin, eye contact



ART SUPPLIES

- Harmful chemicals
- Asthma, allergies, headaches, nausea
- Labels incomplete



CHEMICALS IN ART SUPPLIES

Of greatest concern:

Solvent Based

Sprays, Powders

Commercial dyes

Permanent or scented markers



ART SUPPLIES: SAFETY TIPS

- Ventilate
- No eating or drinking
- Wash hands
- Mop or vacuum



ART SUPPLIES: WHAT YOU CAN DO

- Do Use
- Vegetable or food dyes
- Water-based supplies
- Arts and Crafts Material Institute (ACMI)
 - Approved Product (AP)
www.acminet.org



ART SUPPLIES: WHAT YOU CAN DO

Ask: What will be the exposures?



CHECKLIST: ART SUPPLIES

22. We use only non-toxic art supplies approved by the Art and Creative Materials Institute (ACMI). Look for ACMI non-toxic seal “AP” at www.acminet.org.



PLASTICS

- Toxic additives and stabilizers: phthalates and BPA
- Toys, vinyl lunchboxes
- Found in our bodies



PHTHALATES (THAY-LATES)

Links to :

- Developmental & reproductive problems
- Asthma
- Some cancers

Found in:

- Soft plastics
- Lotions, cosmetics
- Air fresheners
- Fragrances, solvents



BISPHENOL A (BPA, BIS A)

Links to:

- Prostate, breast cancers
- Birth defects, miscarriages
- Reproductive damage
- Hyperactivity, aggressiveness

Found in:

- Clear, hard plastic
- Tin can linings
- Credit card receipts



PLASTICS AND PLASTIC TOYS



HHS GUIDANCE ON BISPHENOL A (BPA, Bis A)

- Discard food containers with scratches
- Do not put boiling or very hot liquids into BPA-containing bottles
 - ◆ www.hhs.gov/safety/bpa/



What You Can Do

Avoid these recycling codes:

- ◆ “3” or “v” (PVC)
- ◆ “6” “PS” (Polystyrene)
- ◆ “7” “other” (polycarbonate)*



FDA bans BPA in baby bottles

By Matthew Perrone

The Associated Press

WASHINGTON — The federal government announced Tuesday that baby bottles and sippy cups can no longer contain bisphenol-A, or BPA, the plastic chemical which has been subject to years of scientific scrutiny.

The U.S. chemical industry's chief association, the American Chemistry Council, had asked the

Food and Drug Administration to phase out rules allowing BPA in those products in October, after determining that all manufacturers of bottles and sippy cups had already abandoned the chemical due to safety concerns.

It is illegal for companies to use substances not covered by FDA rules.

"Consumers can be confident that these products do not contain BPA," FDA spokesman Allen Curtis

said in a statement, adding that the agency's action was based on the bottle industry's phase out of the chemical. "The agency continues to support the safety of BPA for use in products that hold food."

The chemical industry's request may help curb years of negative publicity from consumer groups and head off tougher laws that would ban BPA from other types of packaging because of health worries.



U.S. ACTION:

BPA:

- Banned in baby bottles

Phthalates:

- 6 are banned; 3 permanently
- children's toys
- child care articles



PLASTICS GRAB BAG

- Is this a product that:
 - ◆ A very young child should be mouthing or playing with?
 - ◆ Should be used for food or beverages?



CHECKLIST: PLASTICS AND PLASTIC TOYS

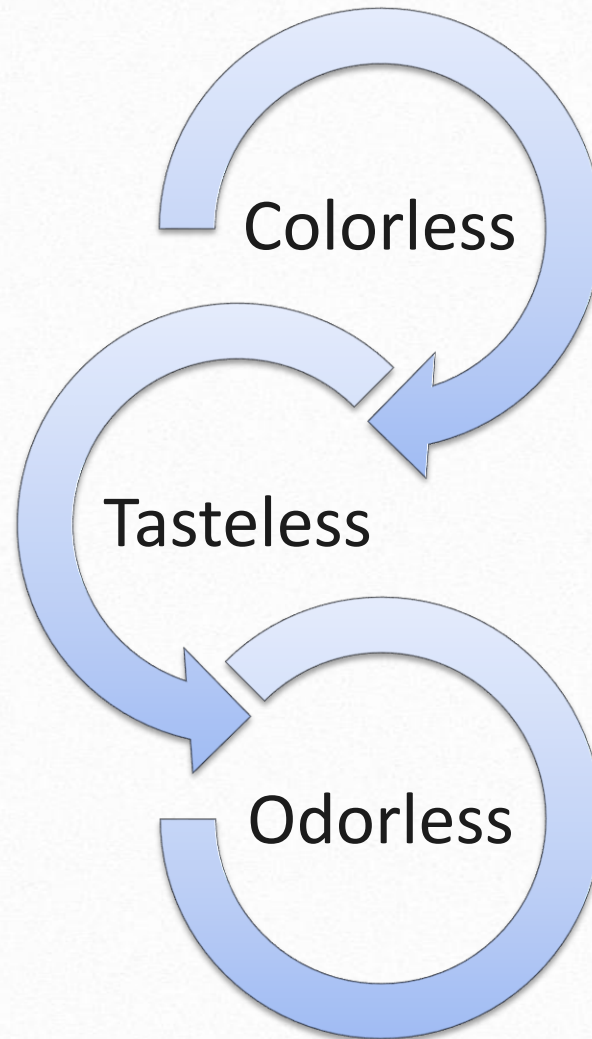
23. We avoid toys made out of soft plastic vinyl (such as vinyl dolls, beach balls, and “rubber ducky” chew toys). We buy only those labeled “PVC-free” and “phthalate free”.

24. When using a microwave, we never heat children’s food in plastic containers, plastic wrap or plastic bags.

25. We never use baby bottles or sippy cups made with BPA (Bisphenol A). Instead, we use bottles made of glass, or plastic that is labeled ‘BPA-free.’



ARSENIC



ARSENIC

- Health concerns:
 - ◆ Birth/developmental effects
 - ◆ Cancers



ARSENIC: SOURCES

- Outdoor Treated Wood (pre-2006)
- Arsenate (CCA) preservative
 - ◆ Leaches onto surfaces, soil



TIPS FOR TREATED WOOD (PRE-2006)

- Wash up.
- Test for it.
- Seal it.
- Take cover.
- Do not: burn, sand, or cut it.
- Treat it gently.
- Dispose of at a hazardous waste site.
- Replace it.



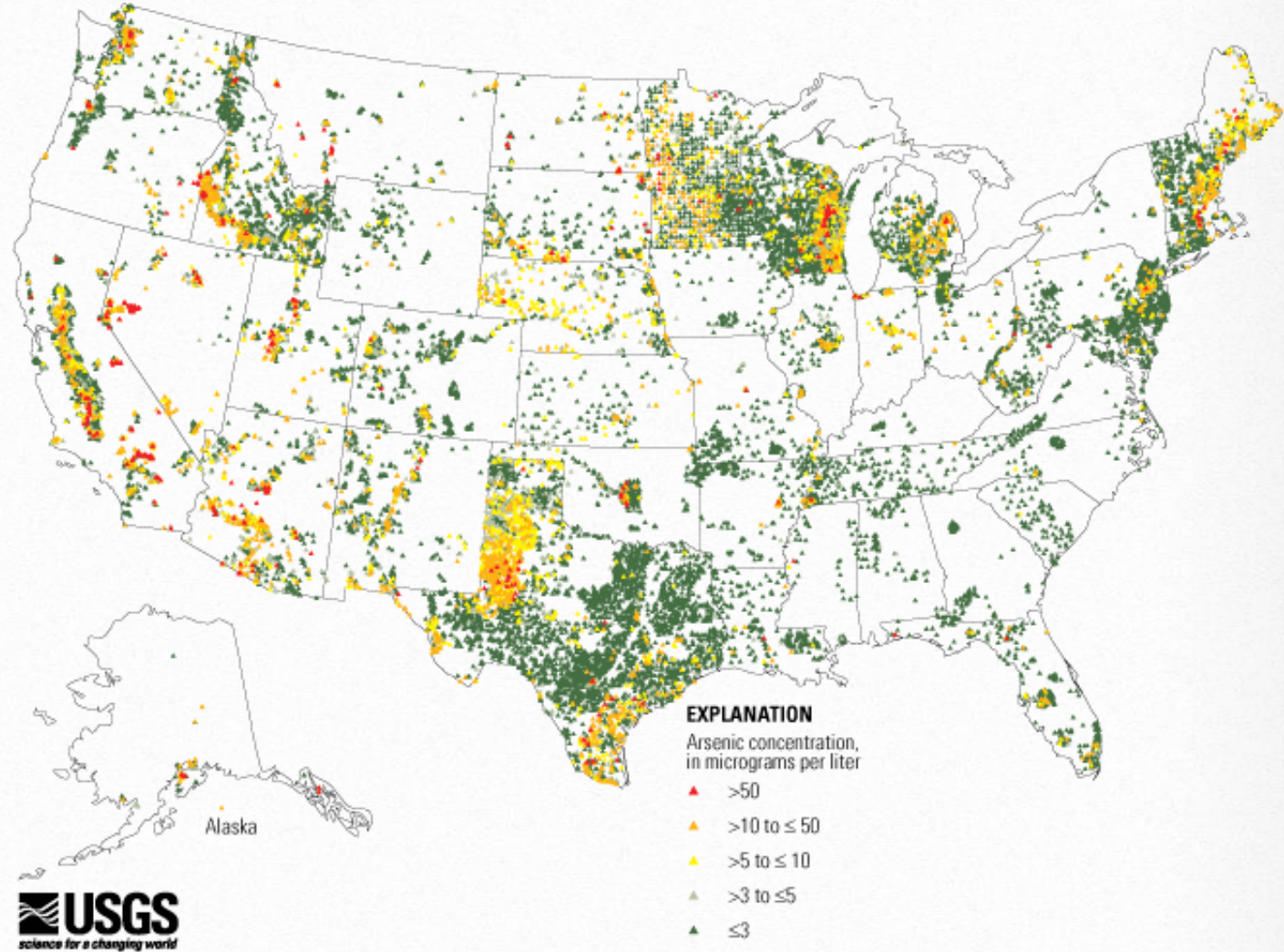
ARSENIC: SOURCES

Drinking Water

- Private wells are the greatest risk



ARSENIC: SOURCES



USEPA Arsenic drinking water standard is 10 micrograms per liter



CHECKLIST: ARSENIC

26. We do not have playground equipment made of CCA treated wood (pre 2006) — or — if we do, we apply 2 coats of waterproof stain or sealant at least once a year.



The leading cause of lung cancer in non-smokers is:

RADON



RADON

- Radioactive gas
- Invisible, odorless, tasteless
- Builds up indoors



RADON

- Serious public health problem
- 20,000 deaths/year



EPA urges homeowners to test for radon

By VAL VAN METER
The Winchester Star

WINCHESTER — It's not enough to be aware of the dangers of radon gas. The federal Environmental Protection Agency has designated January as "National Radon Action Month" and is urging health agencies across the country to get the word out that this invisible, odorless gas is the leading cause of lung cancer for nonsmokers.

The EPA also encourages people to test for it.

Radon can be found just about everywhere, said Dr. Charles Devine, director of the state's Lord Fairfax Health District, which covers Winchester and surrounding jurisdictions.

Radon is formed by the decay

Radon is formed by the decay of naturally occurring uranium in the soil, and the invisible, odorless gas can collect in houses, particularly basements, by rising through cracks in foundations or walls.

of naturally occurring uranium in the soil.

Devine said the EPA map of radon zones in Virginia varies from Zone 1, the most likely area to find radon gas, to Zone 3, the least likely.

"All of the Lord Fairfax Health Department area falls in Zone 1," he said.

The gas can collect in houses, particularly basements, by rising through cracks in foundations or walls.

"Across the country, it is esti-

mated that 21,000 deaths per year are due to exposure to radon," Devine said, adding, "The risk is greater for smokers than nonsmokers."

Devine said radon testing kits are readily available in local hardware stores and sell for under \$20.

If a homeowner finds a high level through the test, Devine recommends working with a certified contractor to eliminate the problem.

There are two organizations

that certify contractors, he added, the National Radon Proficiency Program and the National Radon Safety Board, both of which have websites.

The Virginia Health Department has several pages of information on radon testing and treatments available on its website, vdh.virginia.gov. And there is a new website, RadonMonth.org.

Radon has caused more American fatalities than carbon monoxide, fires or handguns combined, according to the Cancer Prevention Centers.

"The problem can be solved without too much trouble or expense," Devine pointed out, but people have to take action.

— Contact Val Van Meter at vanmeter@winchesterstar.com

January 2014



WHAT YOU CAN DO

- Test
- 1-800- SOS-RADON or visit www.sosradon.org
- 4pCi/L
- www.epa.gov/radon/wherelive.html



WHAT YOU CAN DO

Professional mitigation



CHECKLIST: RADON

27. We have tested our facility for radon. If elevated levels of radon are found, we take action to mitigate. We have visited www.epa.gov/radon for resources, and have researched state requirements and guidelines to learn more.



RECYCLING & GARBAGE STORAGE

- www.globalstewards.org/ecotips.htm
- www.earth911.org
- Cover garbage



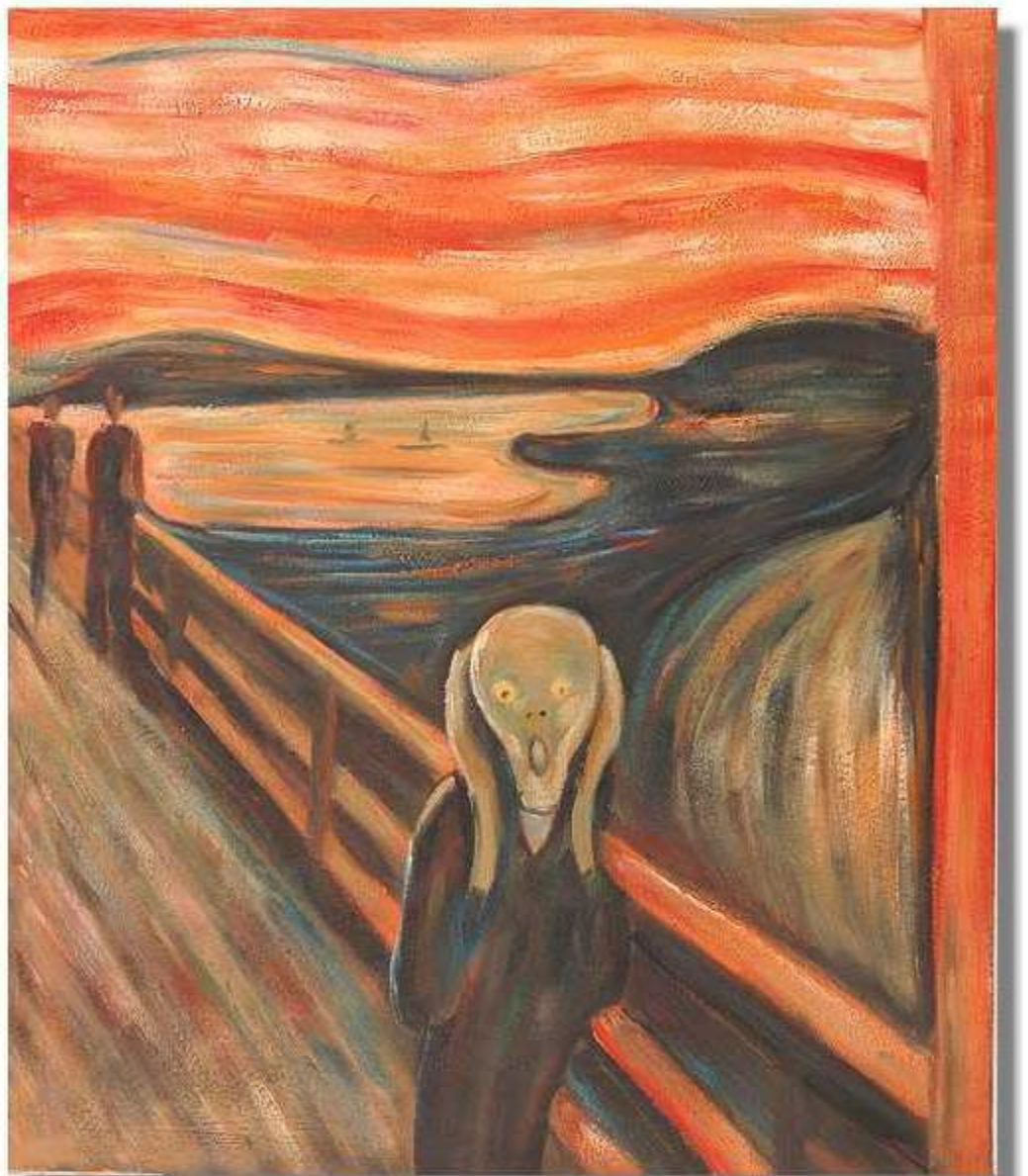
CHECKLIST:

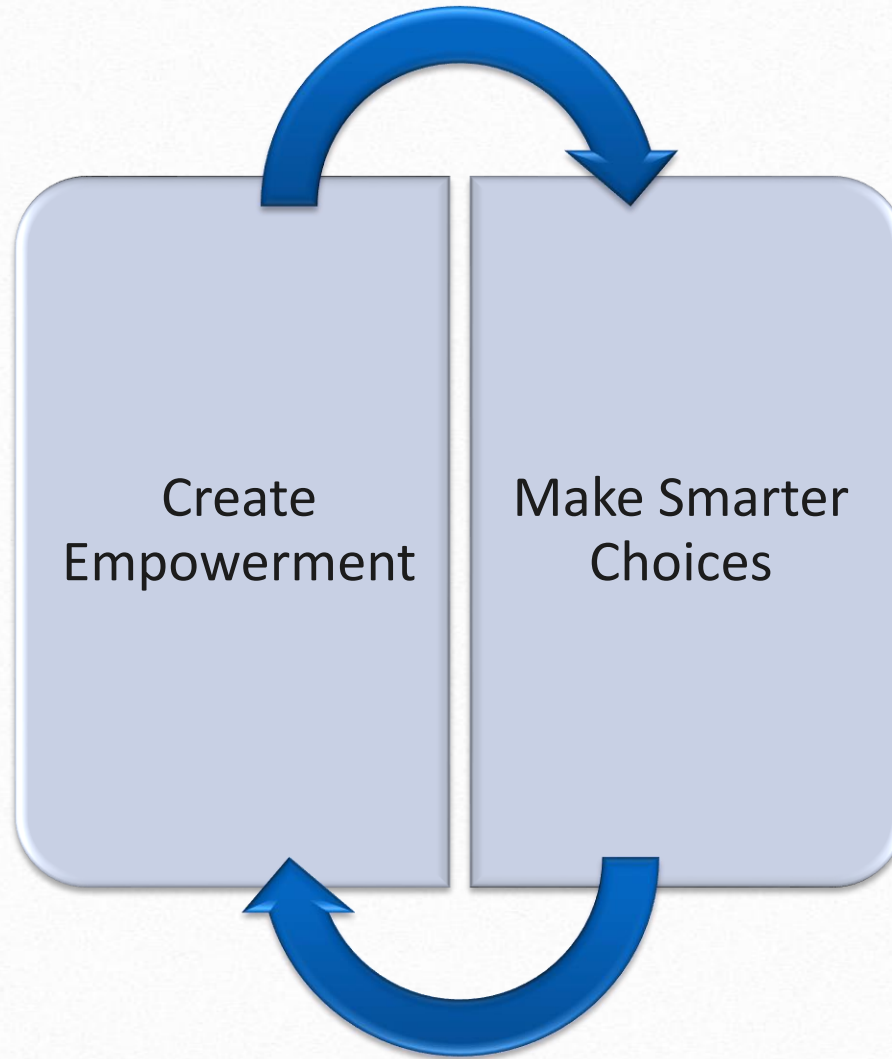
RECYCLING & GARBAGE STORAGE

28. We recycle all paper, cardboard, glass, aluminum and plastic bottles.

29. We keep our garbage covered at all times to avoid attracting pests and to minimize odors.







HOW ARE YOU DOING?

- Don't expect to be an angel
- Try one or two things in the next 6 months



Choices and decisions
DO
make a difference



IAQ AND HEALTH

- Head off Environmental Asthma in Louisiana (HEAL)
 - 50% ↓ asthma attacks
- Baltimore: asthma symptoms
 - 34% ↓ w/ HEPA air cleaner



DECREASING EXPOSURE

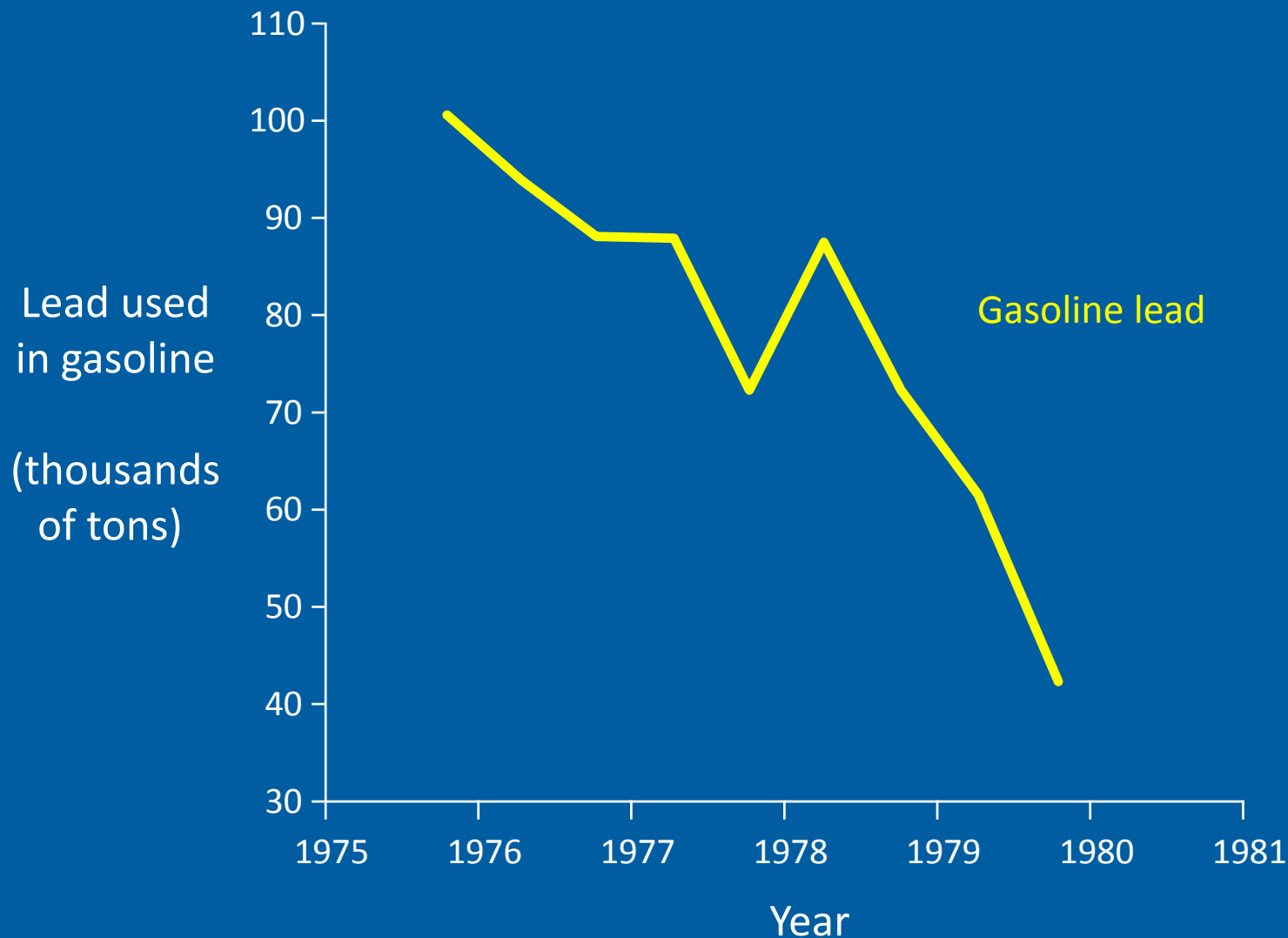
After 3 days of:

- No canned and packaged foods
- No plastic storage containers

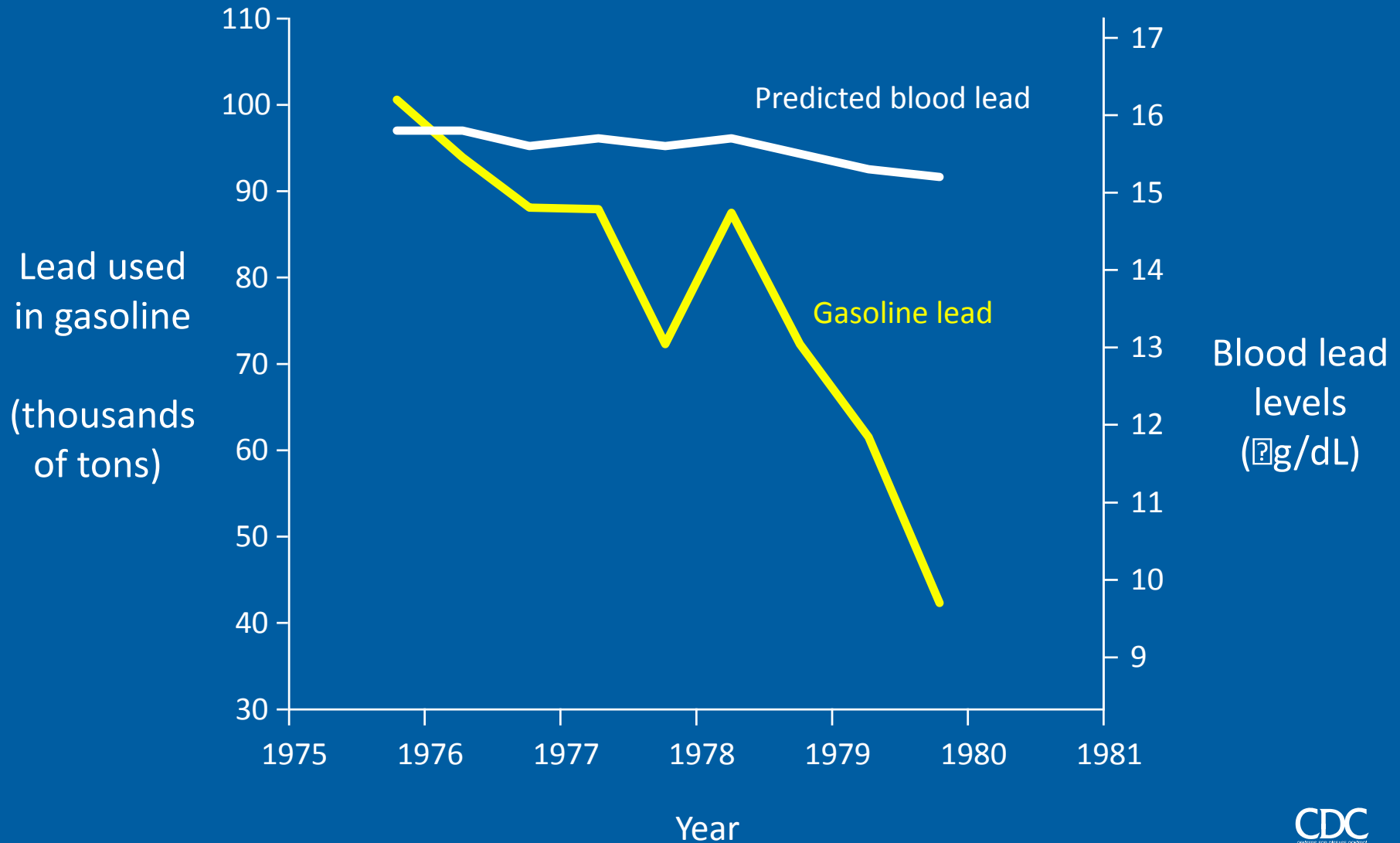
- BPA body burden ↓66%
- Phthalates body burden ↓53-56%



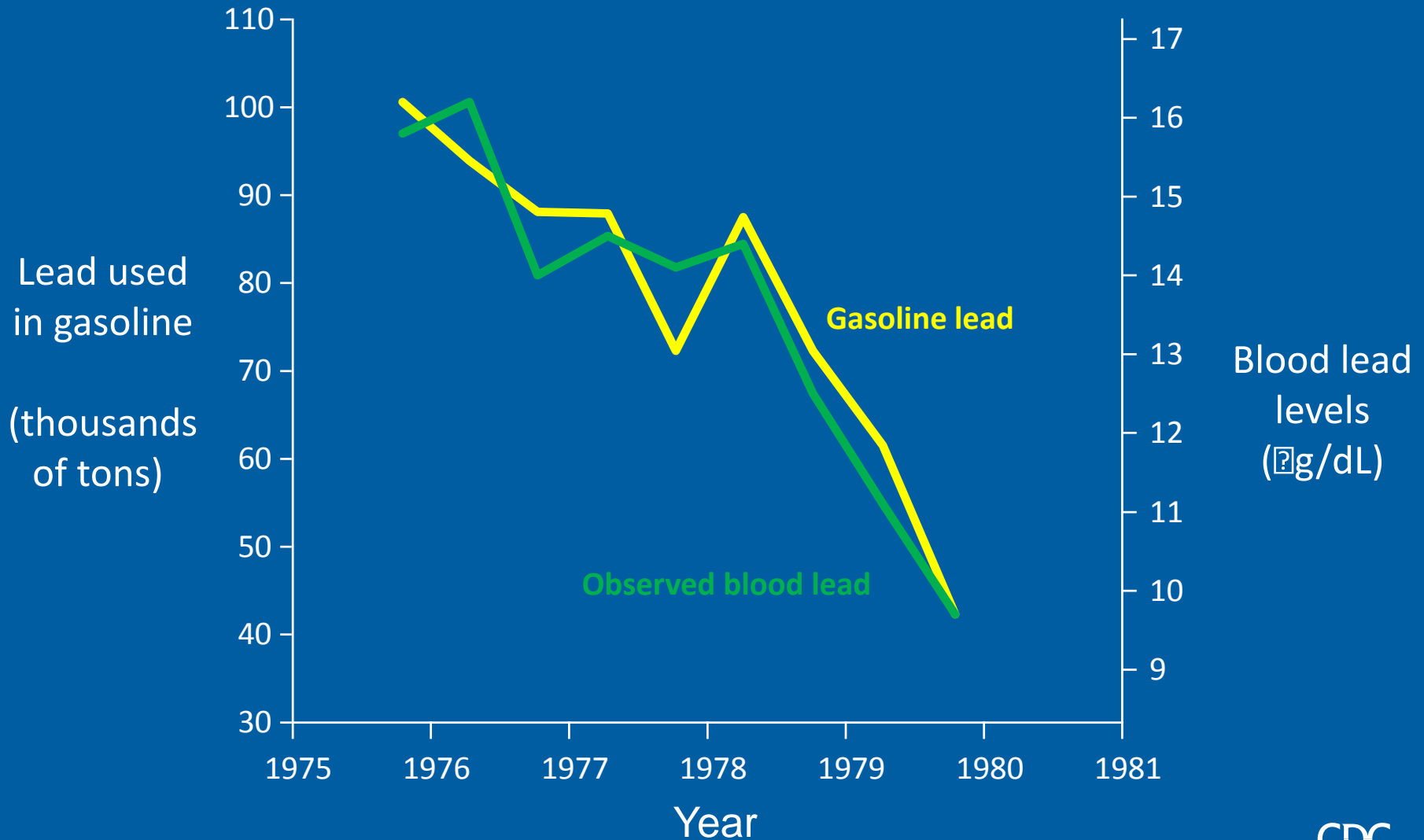
Lead used in gasoline declined from 1976 through 1980



Environmental modeling predicted only a slight decline in blood lead levels in people



NHANES II blood lead measurements found a major decline in blood lead levels



CHECKLIST:

EDUCATION & AWARENESS

30. We create opportunities to educate the families we serve on eco-healthy practices.



WWW.CEHN.ORG/EHCC



**Eco-Healthy
Child Care[®]**

- Protects children
- Free to low-cost solutions
- Resources, technical assistance, training
- Endorsement



Children's Environmental Health Awards

2006

- 2013 NEHA Innovation Award
- 2009-2010 Childcare and School IPM Award
- 2006 EPA national recognition award



**Eco-Healthy
Child Care®**





Eco-Healthy Child Care[®]

- Science-Based
- *Caring for Our Children 3rd Edition*
- 2,200+ endorsed facilities
- 91,000+ children



EHCC ENDORSEMENT:

- Certificate
- Poster
- Web posting
- Marketing
- Eco-Healthy tips



HOW EHCC ENDORSEMENT WORKS:

- www.cehn.org/ehcc
- Free Materials
 - ◆ Checklist
 - ◆ 16 fact sheets
- 2 year endorsement
- Parents



HOW EHCC ENDORSEMENT WORKS:

- To receive 2-year endorsement:
- 24 of 30 requirements
- Outside signature
- Site Assessment
- Modest fee



5 ADDITIONAL FACT SHEETS:



ECO-HEALTHY CHILD CARE

- Trainings
- Updates to endorsed facilities and trainers
- Licensing
- Data collection



WHAT DOES EHCC MEAN FOR YOU?

- EHCC Train the Trainer network
- Updates
- Calendar
- 2 Trainings/year



THANKS TO

- Cedar Tree Foundation
- W. K. Kellogg Foundation
- Kresge Foundation
- US Department of Housing & Urban Development
- Centers for Disease Control & Prevention
- US Environmental Protection Agency
- Agency for Toxic Substances & Disease Registry and others





THANK YOU!
202-543-4033 EXT. 13
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