Your Environment and Your Health

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Body Burden Studies

Chemicals found in Charlotte:

214 tested

87 found
Chemicals found in Charlotte

number:  associated with:

• 54  Birth defects and dev delays
• 53  Immune toxicants
• 52  Cancer
• 37  Brain and nervous system
• 23  Reproduction and fertility
• 16  Hormone activity
• 10  Gastrointestinal (including liver)
Auto Products
Brake Fluid, De-icer, Lubricant, Sealant, and more...

Inside the Home
Air Freshener, Bleach, Cleaners, Toilet Bowl Cleaner, and more...

Pesticides
Animal Repellant, Fungicide, Herbicide, Insecticide, and more...

Landscape / Yard
Fertilizer, Lawn Care, Swimming Pool Products, and more...

Personal Care / Use
Antiperspirant, Hair Spray, Makeup, Shampoo, Soap, and more...

Home Maintenance
Caulk, Grout, Insulation, Paint, Putty, Stain, and more...

Arts & Crafts
Adhesive, Glaze, Glue Primer, Varnish, and more...

Pet Care
Flea & Tick Control, Litter, Stain/Odor Remover, and more...

Home Office
Ink, Toner, Correction Fluid, Electronics Cleaners, Pens, and more...
Body Burden
The Pollution in Newborns

A benchmark investigation of industrial chemicals, pollutants, and pesticides in human umbilical cord blood
Breast Cancer
How many of you learned about the health risks from cigarettes?
What’s the #2 cause of lung cancer in the U.S.?
Perfumes and Fragrances
PESTICIDES
Drawings of a Person
by Yaqui children (by age and gender)

Foothills
(pesticide-free)

54 mos. girl
60 mos. girl
55 mos. girl
71 mos. boy
Valley
(pesticide-exposed)

54 mos. girl

53 mos. girl

71 mos. girl

71 mos. girl
What does pesticide use look like in your community?
Raid Ant & Roach Killer
For Household Use
Country Fresh scent
Kills on Contact, Keeps on Killing

ACTIVE INGREDIENTS:
Permethrin* [(3-Phenoxyphenyl)methyl] (cis-trans-3-(2,2-dichloroethenyl)-2,2-dimethylcyclopropane carboxylate) 0.20%
Pyrethrins .................................................. 0.13%
Piperonyl butoxide technical ** 0.23%
INERT INGREDIENTS ........................................ 99.41%
contains petroleum distillates
* cis/trans isomer ratio: Min. 35% cis and Max. 65% trans.
** equivalent to Min. 0.40% of butylcarbophate (6-propylpiperonyl) ether and Max. 0.10% related compounds

KEEP OUT OF REACH OF CHILDREN
CAUTION:
READ ALL PRECAUTIONARY STATEMENTS ON BACK

NET WT. 12 OZ.
PESTICIDE FREE

This area
SAFE FOR CHILDREN
pets and other living things
Institutional **Organic food** purchasing policies

- Hospitals
- Schools
- Nursing homes
- Universities
Organic food production

I LOVE Organic FOOD!!!
No To Pesticides

David Q. A. Daren
Pesticide Residues on Food

Dirty Dozen
Apples
Celery
Cherry
Tomatoes
Cucumbers
Grapes
Hot Peppers
Nectarines (imported)
Peaches
Potatoes
Spinach
Strawberries
Sweet Bell Peppers

Clean Fifteen
Asparagus
Avocado
Cabbage
Cantaloupe
Corn
Eggplant
Grapefruit
Kiwi
Mangos
Mushrooms
Onions
Papayas
Pineapples
Sweet Peas (frozen)
Sweet Potatoes
Endocrine disrupting chemicals and carcinogenesis
Hazardous Chemicals in Health Care: A Snapshot of Chemicals in Doctors and Nurses

• 12 Doctors
• 8 Nurses

• 62 Chemicals (including congeners)

• BPA
• Perfluorinated compounds
• Phthalates
• PBDEs
• Triclosan
• **BPA** – EDC, repro toxicant, breast and prostate Ca, brain function, obesity, thyroid dysfunction

• **Perflourinated compounds** – EDC, Immunotoxicant, liver/pancreatic tumors (animal)

• **Phthalates** – reproductive development

• **PBDE** – neurotoxicant (brain function, memory, behavioral problems)

• **Triclosan** – thyroid dysfunction, EDC

• At least 24 chemicals were found in any given person studied.
Flame retardant chemicals (PBDEs)

1. Flame retardants are not bound to foam.
2. They off-gas from foam and settle into dust.
3. Dust is ingested through hand-to-mouth contact.
Health Effects of Flame Retardants

**Neurodevelopmental Effects**
- Decreased memory and learning
- Reduced IQ
- Hyperactivity

**Endocrine System Disruption**
- Obesity
- Chemicals that mimic estrogen
- Alters thyroid hormone

**Reproductive Toxicant**
- Decreased fertility
- Decreased birth weight
- Decreased sperm quality

- Diabetes
- Cancer
FLAME RETARDANTS IN FOAM PRODUCTS
CHARGE: REPRODUCTIVE DAMAGE

- changing pads
- nap mats
- children's mattresses
- foam insulation
- nursing pillows

Photos: Mark Baylor, George Ruiz, BillSmith_03303, Liz West, Daniel Rothamel, Abigail Batchelder
President’s Cancer Panel

Reducing Environmental Cancer Risk

“The true burden of environmentally induced cancer has been grossly underestimated”
Dear President....

“...remove the carcinogens and other toxins from our food, water, and air that needlessly increase our health care costs, cripple our Nation’s productivity and devastate American lives.”

Presidents Cancer Panel
April 2010
We need to reframe our battle cry:

From the **War on Cancer**

to

the **War on Carcinogens**
“We need to be at the head of the race for prevention and part of the race for the cure”
What else about Triclosan?

• It kills weaker bacteria and favors more virulent ones
• It persists! Many sewage treatment plants are finding high levels of triclosan in sewage waste
• Exposed fish have lower sperm counts (it’s an Endocrine Disrupting Chemical)
• Some cutting boards, underpants, and countertops are impregnated with it
Triclosan banned in hand soap (Sept 2016)

But..... Still in:

• Antimicrobial soaps in hospitals
• Soaps in food services
• Acne cream
• Colgate Toothpaste
Arsenic in poultry

Used for:
- Growth promotion
- Pigmentation
- “Prophylaxis” - compensate for growing conditions

When tested, 55% of raw, supermarket chicken had detectable arsenic.

• At least 70% of broiler chickens are fed arsenic.

Banned in Europe
Banned in Maryland

David Wallinga, MD, www.HealthObservatory.org
What does *USDA Certified Organic* mean?
Organic…

**Produce**

- NO
- harmful or toxic pesticides
- sewage sludge or petroleum-based synthetic fertilizers
- genetically modified organisms (GMOs) or bioengineering
- ionizing radiation.

**Meat, poultry, eggs, and dairy products**

- non-cloned animals
- NO ABX
- NO growth hormones
Organic certification process:

- Submit application and org syst plan (OSP)
- Reviewed
- Annual inspection
What does – Natural – Organic – Pure – Gluten-free – etc. mean on a food label?
What Happens to “Produced water” in the Central Valley?
Chevron sells millions of gallons of treated produced water to farmers in the Central Valley.
Cawelo Water District → Kern County Farms

Scott Smith, with Water Defense, testing canal water
Acetaminophine
Sulfa Drugs
Codeine
Caffeine
17 B Estradiol

Antidepressants in fish brains
EPA Recommended Disposal

Empty pills and capsule content into coffee grounds or kitty litter and dispose in your solid waste (garbage)
What's under your kitchen sink, in your garage, in your bathroom, and on the shelves in your laundry room? Learn more about what's in these products, about potential health effects, and about safety and handling.

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For advice if someone is poisoned, call your local Poison Center at 1-800-222-1222.
Using National Library of Medicine’s **ToxNet** for the sources of the evidence

www.enviRNevidence.org
eniRN – Evidence: A New Tool for Environmental Health and Nursing Education
ANHE
Alliance of Nurses for Healthy Environments

Take action on important environmental health issues

Welcome! Our website is the home of the Alliance of Nurses for Healthy Environments (ANHE) and is THE place for nurses to gather essential environmental health information, connect with other nurses, and join in the activities of ANHE. Explore our communities (how topic areas are arranged) and start making positive changes!

eTextbook
Are you new to environmental health or looking to expand your knowledge? Are you a nursing educator or researcher? Our eTextbook provides the latest information to support nurses and researchers in the field of environmental health.

Get Involved!

Register Now!
Register now to start engaging with other nurses interested in environmental health here on ANHE's website. Once you register you
Environmental Working Group
http://www.ewg.org/reports/skindeep2/index.php

Skin Deep
News about the safety of popular health & beauty brands
a project of Environmental Working Group

Stay Informed
Sign up for our monthly email bulletin to learn more about chemicals and your health. (Click "No Thanks" to go to the database.)

The Power of Information
Apps

• Think Dirty
• Good Guide
• Food Scores
We can’t just shop our way out of this

- Advocate for better chemical policies that include:
  - Premarket testing for new products
  - Complete transparency
  - Labeling
  - Banning chemicals that are highly toxic
THANK YOU