# House Bill 27 Toxic Free Children's Act

Representative Geran Tarr

#### Regulation of Chemicals in Our Environment

- Federal Laws
  - Federal Insecticide, Fungicide, and Rodenticide
     Act (passed in 1910, pesticides)
  - Federal food, Drug, and Cosmetic Act (passed in 1938, drugs, cosmetics, foods, food additives)
  - Toxics Substances Control Act (passed in 1976)
    - Updated in 2016 with Frank Lautenberg Chemical Safety for the 21st Century Act

#### Regulation of Chemicals in Our Environment

- Federal Laws
  - Consumer Product Safety Improvement Act of 2008
    - Use children as the benchmark for safety
    - Included the Lead Free Toys Act
    - Status "CPSC has and is continuing to implement regulations based on CPSIA."

Consumer Product Safety Commission, March 9, 2018

## Frank R. Lautenberg Chemical Safety for the 21st Century Act

#### TSCA as reformed by the Frank R. Lautenberg Chemical Safety for the 21st Century Act

#### **TSCA** pre-reform

Mandatory duty on EPA to evaluate existing chemicals with clear and enforceable deadlines

No duty to review, no deadlines for action

Chemicals assessed against a risk-based safety standard

Risk-benefit balancing standard

Unreasonable risks identified in the risk evaluation must be eliminated

Significant risks might not be addressed due to cost/benefit balancing and no mandate to act

Expanded authority to more quickly require development of chemical information when needed

Testing on existing chemicals required lengthy rulemaking

## THE POINT

MUCH REMAINS TO BE DONE
MUCH REMAINS TO BE LEARNED

## Worker Health Concerns Due to Exposure to Chemicals

- Cancer
- Reproductive Health disorders
- Developmental delays or cognitive impairment
- Birth defects
- Endocrine disruption
- Respiratory disorders
- Neurodevelopmental disorders

#### 3 Ways for Exposure

- Absorption
  - Personal Care Products (directly to skin)
- Inhalation
  - Flame Retardants (in dust and burning)
- Eating
  - Pesticides on fruits and vegetables, in milk and meat

### Flame Retardants (PBDEs)

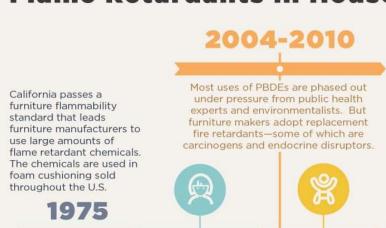
- Used in children's products, furniture, electronics, plastics, building materials, motor vehicles, airplanes, and textiles
- Exposure is from ingestion of food and inhalation
- Chemical composition: Polybrominated diphenyl ether
  - Structurally similar to PCBs
  - Family of chemicals can make over 200 related chemicals

## Flame Retardants (PBDEs)

- Chemicals bioaccumulate in blood, breast milk, and fat tissues
- Health impacts include thyroid hormone disruption, permanent learning and memory impairment, behavioral changes, and more
- Leading cause of cancer in Firefighters

#### Why Flame Retardants?

#### Flame Retardants in Household Products



California abandons the rule that compelled furniture manufacturers to use flame retardants. Some furniture makers begin to drop the chemicals. EWG detects carcinogenic PBDE replacements in California children at levels 15 times those of their moms.

2016

(in)

2003

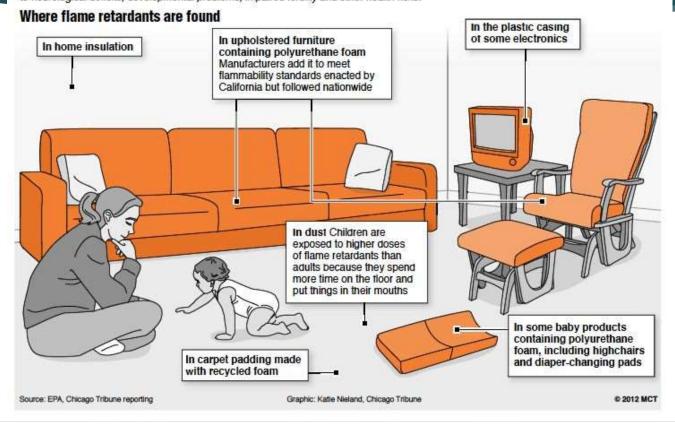
EWG monitoring study detects neurotoxic flame retardants known as PBDEs in mothers' milk. 2008

EWG study finds that levels of PBDEs in kids are triple those in their moms. 2014

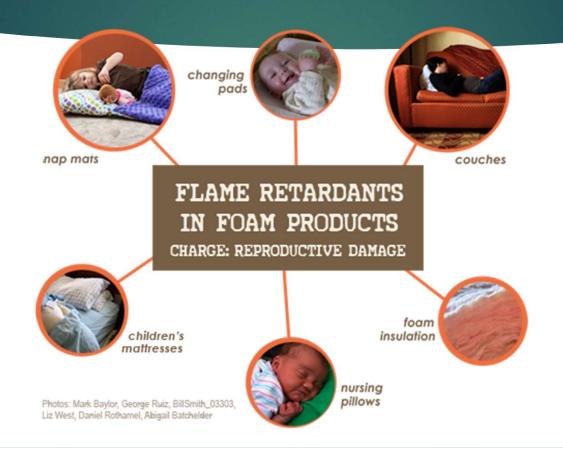
EWG detects carcinogenic PBDE replacement chemical in New Jersey children at five times their moms' levels. The market is changing. Most new home and office furniture and baby products are made without flame retardants. But manufacturers of automobiles, car seats, and electronics still use the chemicals.

#### How are We Exposed?

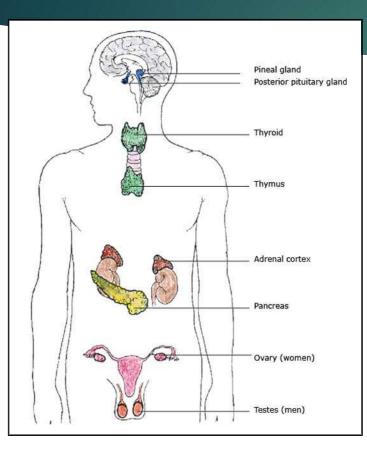
Flame retardants are present in virtually every American home even though some of the compounds have been linked to neurological deficits, developmental problems, impaired fertility and other health risks.



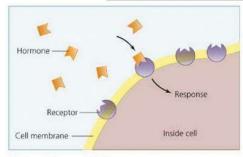
#### Children's Exposure is a Major Concern



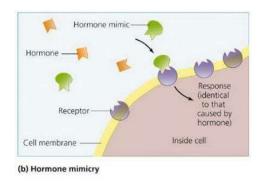
#### Endocrine System & Endocrine Disruption



#### **Endocrine Disruption**

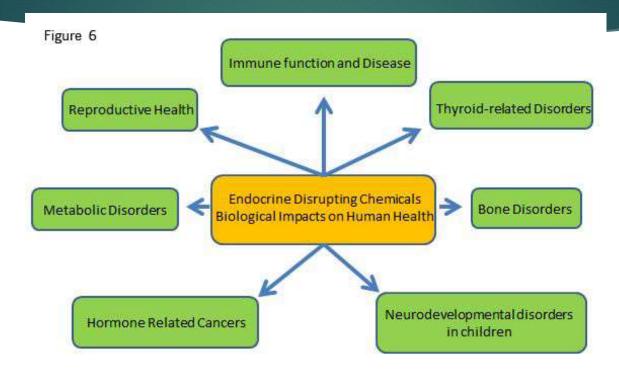


(a) Normal hormone binding



- Some chemicals, once inside the bloodstream, can "mimic" hormones.
- If molecules of the chemical bind to the sites intended for hormone binding, they cause an inappropriate response.
- Thus these chemicals disrupt the *endocrine* system.

#### Endocrine System & Endocrine Disruption



Source: State of the Science of Endocrine Disrupting Chemicals – 2012 Inter-Organization Programme for the Sound Management of Chemicals

### Policy Solutions

1

Restrict use of known chemicals of concern 2

Restrict use of possible substitutes

3

Conduct Alaska research 4

Collaborate with other states

