

WEBINAR “TOXIC CHEMICALS IN CHILDREN’S TOYS”

Tatiana Santos

Policy Manager: chemicals and nanotechnology



EEB

European
Environmental
Bureau

WHY CHILDREN ARE MORE VULNERABLE TO TOXICS?

- pre-polluted before birth
- greater exposures to toxics for their body weight than adults
- Weaker ability to metabolize toxic chemicals
- children's early developmental processes are easily disrupted
- “windows of vulnerability”

Table 2. Differences in children and adults.

	Infants	Children	Teens	Adults	Reference
Surface area: body mass ratio (m ² /kg)	<u>Newborn</u> 0.067	<u>Young child</u> 0.047	<u>Older child</u> 0.033	<u>Adult</u> 0.025	(35)
Respiratory ventilation rates	<u>Infant</u>			<u>Adult</u>	(35)
Respiratory volume (mL/kg/ breath)	10			10	
Alveolar surface area (m ²)	3			75	
Respiration rate (breaths/min)	40			15	
Respiratory minute					
Ventilation rate ^a	133			2	
Drinking water (tap)	<u>< 1 year</u>	<u>1–10 years</u>	<u>11–19 years</u>	<u>20–64 years</u>	(36)
Mean intake (mL/kg/day)	43.5	35.5	18.2	19.9	
Fruit consumption (g/kg/day)	<u>< 1 year</u>	<u>3–5 years</u>	<u>12–19 years</u>	<u>40–69 years</u>	(37)
Citrus fruits	1.9	2.6	1.1	0.9	
Other fruits (including apples)	12.9	5.8	1.1	1.3	
Apples	5.0	3.0	0.4	0.4	
Soil ingestion (mg/day)		500			(38)
Pica child					
		<u>Child age 2.5 years</u>		<u>Adult</u>	
Outdoor		50		20 ^b	
Indoor		60		0.4	
Differences in GI absorption of lead	<u>Age 0–2 years</u> 42–53%	<u>Age 2–6 years</u> 30–40%	<u>Age 6–7 years</u> 18–24%	<u>Adult</u> 7–15%	(39)

^amL/kg body weight/m² lung surface area/min. ^bGardening for adults.

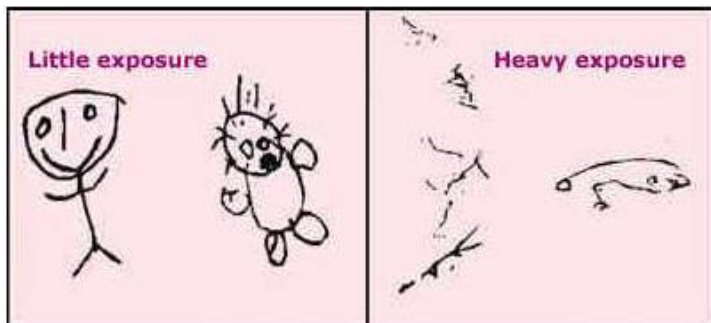
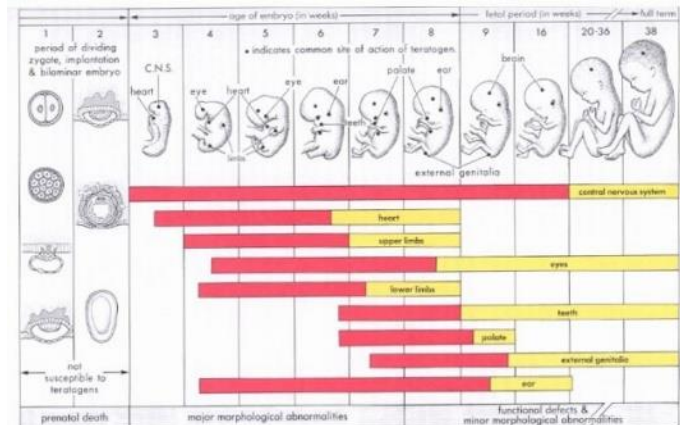
Identifying Critical Windows of Exposure for Children's Health. Sherry G. Selevan, Carole A. Kimmel A and Pauline Mendola

WHY CHILDREN ARE MORE VULNERABLE TO TOXICS?

The impact of endocrine disruptors in children



T. Colborn (1927-2014)
"The timing makes the poison"



2 groups of 4-5-year-old Mexican children were asked to draw a person. These children share similar genetic backgrounds, diets, water mineral contents, cultural patterns, and social behaviours. The major difference was their exposure to pesticides.

'FLOOD' OF TOXIC TOYS

2018 EEB campaign against toxic toys

Results of our [RAPEX research](#) (by Dec 2018) showed that **there were more banned chemicals in toys than any other product type**

- **290 toys** found with illegal levels of toxic substances banned by the EU because they may cause cancer, autism, etc.
- **86% (250) were plastic toys**, 150 were plastic dolls, 21 were modelling clays or slimes, 31 were balloons or balls.

'FLOOD' OF TOXIC TOYS

2019 EEB campaign against toxic toys

Results of our [RAPEX research](#) (by Nov 2019):

- **Toys were the single most problematic good blocked (542)**, followed by motor vehicles (462) and electrical appliances (162), though inspections are usually not random.
- **Chemical risk was top one reason for blocking toys:** [248 models of toy](#) (likely tens of millions of units).

Of these:

- 228 (92%) were categorised as “serious risk”
- 219 (88%) came from China

'FLOOD' OF TOXIC TOYS

2019 EEB campaign against toxic toys

- Around 50% were plastic and contaminated with phthalates
- 73 were dolls
- 62 were slime contaminated with boron
- 27 were soft or squeezable toys



EEB VIDEO



Toxic chemicals in children's toys

https://www.youtube.com/watch?v=ZkbdFW6gGDM&feature=emb_logo

'FLOOD' OF TOXIC TOYS

2020: toxic toys. AGAIN???

Results of quick RAPEX search:

- **537 toys blocked, 214 models of toy for chemical risk**

Of these:

- 196 (92%) were categorised as “serious risk”
- 188 (88%) came from China
- 163 (76%) plastic, most of them phthalates (129)
- 80 were dolls
- 40 were slime contaminated with boron
- 13 were soft or squeezable toys



MAIN GAPS

'FLOOD' OF TOXIC TOYS

Not sufficiently protective regulatory framework

- **The EU Toy Safety Directive** rules out production involving many harmful chemicals, but **neglects** others (e.g. **neuro and immune toxicants, EDCs...**).
- **Chemicals in products: Different (even lacking) standards** (e.g. childcare articles, carpets...)
- **Plastics are barely regulated.** Industry must supply **safety data** for most chemicals before they are used, while all **polymers** (main constituents of plastics) are **exempted**.
- **Manufacturers are not required to label toy ingredients** (when the toy is not a chemical substance or mixture).

'FLOOD' OF TOXIC TOYS

Insufficient enforcement

- **Inspectors are outnumbered and outgunned**
- **Uncontrolled imports-online sales**
- Customs officers from four EU frontier countries checked 2.26 million Chinese plastic toys, blocked 722,598 from entering Europe after discovering illegal levels of phthalates and destroyed 31,590, according to a single joint enforcement [project](#)
- **Of the contaminated toys, 92% carried the manufacturer's CE safety mark**



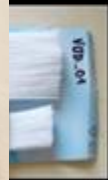
'FLOOD' OF TOXIC TOYS

Toxic recycling

Toxic (even banned) chemicals are increasingly being found in consumer products made of recycled materials

- Octa and Deca BDE in children's toys
- PBDE in food contact materials
- PAHs in rubber playgrounds

Toxic chemicals found in e-waste also found in these items



TOWARDS A TOXIC FREE FUTURE

EU Chemicals Strategy for Sustainability

New chemical detox plan for Europe includes:

- Generic ban more harmful chemicals in consumer products (incl. toys)
- Equal standards for childcare articles than toys
- Chemical cocktails better addressed
- Strengthened enforcement
- Same rules to virgin and recycled materials
- Polymers registration



TIPS

It is hard if not impossible to avoid harmful substances. However:

- **consumer groups** released a summary of all the toxic toys they have uncovered recently.
- **WECF** has produced a toys guide with plenty of useful buying tips.
- AskREACH app and others make it easier for you to exercise your legal right to know if any 'substances of very high concern' above a certain level are present in any product, including toys.
- Both the Danish government and NGOs have produced excellent guidance for pregnant, hopeful women and those breastfeeding.



THANK YOU!

www.eeb.org



@Green_Europe and
@toxicfreefuture



@EuropeanEnvironmentalBureau
eeb@eeb.org and
tatiana.santos@eeb.org

