

# Healthy Legacy

Healthy people,  
a clean environment  
and a thriving economy

## Healthy Products for Minnesota Kids: Safer Children's Products

Thousands of children's toys have been recalled because of lead paint. Unfortunately, lead is not the only hazard we should be worrying about. Many other chemicals are used in products designed for children that pose health risks. Two common chemicals in children's products stand out as a particular threat, because exposure is widespread and they are established hormone disruptors.

**Phthalates** (pronounced thal-ates) plasticizers used to soften vinyl products like teething rings, toys, raincoats and bibs. It's also an ingredient in scented baby products and toiletries (soaps, shampoos and lotions).

**Bisphenol-A** (BPA) a chemical component of polycarbonate plastic used to make plastic toys, baby bottles and "sippy" cups.

## How are children exposed?

### Direct exposures

Babies who chew on vinyl toys, teething rings and other objects can ingest phthalates that leach out of the plastic. Babies and toddlers can ingest bisphenol-A which leaches out of baby bottles and cups; leaching increases when liquids, like milk, are heated or when plastic becomes scratched and worn.

### Exposure through mother

Pregnant women readily pass the chemicals in their bodies through the placenta to their growing babies.

### Children and fetuses at greatest risk

Children have higher metabolic rates than adults, meaning they eat, drink, and breathe more pound for pound, than adults. The biologic systems that normally detoxify and excrete toxic chemicals may not be fully developed in babies and fetuses.<sup>1</sup> Exposure to hormone disrupting chemicals like phthalates and bisphenol-A during critical times in development can result in life long adverse health impacts.

### Consumer Education

Healthy Legacy educates and empowers people to protect themselves and their families by supporting healthy businesses and practices.

### Business Leadership

Healthy Legacy encourages businesses to develop and use safe substitutes for toxic chemicals. Investing in clean technologies creates new jobs, profitable new markets for farmers and industry, and increases worker safety.

### Protective Policies

Healthy Legacy promotes phasing out the most toxic chemicals that persist and build up in our bodies and the environment. We support safe substitutes and solutions.



A growing body of science points to the adverse impacts of low doses of chemicals over time or at a critical points in development.

To leave a healthy legacy, Minnesota needs safe products and safe ways to make them.

## Policy Recommendations

### Phase Out Hormone Disrupting Chemicals

Healthy Legacy supports a phase out of bisphenol-A and phthalates from products intended for the use of children ages three and under. Some of these products include: baby bottles, 'sippy' cups, vinyl bibs, teething rings and more.

We don't need to compromise our children's products or health: safer alternatives exist. The handwriting is on the wall: Europe, Canada, Japan and California, have already phased

Bisphenol-A is estimated to be present in 95% of Americans at levels known to cause harm in lab animals.<sup>13</sup>



Photo credit: Christopher Gillespie

1 National Research Council 1993. *Pesticides in the Diets of Infants and Children*. National Academy Press.  
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 5 Bornehag, C 2004. *Environmental Health Perspectives*, 112(14):1393-1397.  
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 7 vom Saal F et al. 2007. *Chapel Hill Bisphenol A Consensus Statement*. *Reproductive Toxicology* 24(2): 131-138.  
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 9 Wetherill YB et al. 2002. *Molecular Cancer Therapeutics* 1(7):515-524.  
 10 Muñoz-de-Toro M et al. 2005. *Endocrinology* 146(9):4138-4147.  
 11 Sugiura-Ogasawara M et al. 2005. *Human Reproduction* 20(8):2325-2329.  
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 13 vom Saal F et al. 2007.

## Health Effects of Bisphenol-A

- Hormone disruption: mimics estrogen and affects hormone synthesis and metabolism,<sup>7</sup> with resulting abnormalities in the male reproductive tract and early onset of puberty in girls.<sup>8</sup>
- Prostate cancer<sup>9</sup> and changes in mammary glands indicative of breast cancer.<sup>10</sup>
- Reproductive health problems, miscarriage.<sup>11</sup>
- Diabetes and insulin resistance.<sup>12</sup>

## Health Effects of Phthalates

- Hormone disruption: decreased testosterone levels in infant boys,<sup>2</sup> smaller penis sizes, undescended testicles and feminization of the male reproductive tract,<sup>3</sup> as well as decreased sperm counts.<sup>4</sup>
- Exposure to phthalates in house dust has been linked to asthma and rhinitis.<sup>5</sup>
- Prenatal exposure to the phthalate DEHP is associated with shortened length of pregnancy.<sup>6</sup>

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### Healthy Legacy Steering Committee

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