

# BPA, Phthalates, PCBs, PBDEs & PFAS

## Effects on human health:

- Consistent and statistically significant evidence of harm
- Strong reason for concern
- Reason for concern
- Unclear
- Reassuring
- No data from systematic reviews with meta-analysis

	BPA	Phthalates	PCBs	PBDEs	PFAS	
	<span style="color: yellow;">●</span>	<span style="color: red;">●</span>	<span style="color: red;">●</span>	<span style="color: red;">●</span>	<span style="color: red;">●</span>	<b>AT LEAST ONE OUTCOME</b>
<b>BIRTH</b>	<span style="color: grey;">●</span>	<span style="color: orange;">●</span>	<span style="color: red;">●</span>	<span style="color: red;">●</span>	<span style="color: red;">●</span>	Birth weight (decreased)
	<span style="color: yellow;">●</span>	<span style="color: white;">●</span>	<span style="color: white;">●</span>	<span style="color: yellow;">●</span>	<span style="color: red;">●</span>	Birth length (decreased)
	<span style="color: yellow;">●</span>	<span style="color: white;">●</span>	<span style="color: white;">●</span>	<span style="color: yellow;">●</span>	<span style="color: yellow;">●</span>	Head circumference (decreased)
	<span style="color: yellow;">●</span>	<span style="color: white;">●</span>	<span style="color: white;">●</span>	<span style="color: white;">●</span>	<span style="color: white;">●</span>	Gestational age (decreased)
	<span style="color: white;">●</span>	<span style="color: white;">●</span>	<span style="color: white;">●</span>	<span style="color: white;">●</span>	<span style="color: yellow;">●</span>	Ponderal index
	<span style="color: white;">●</span>	<span style="color: red;">●</span>	<span style="color: white;">●</span>	<span style="color: white;">●</span>	<span style="color: white;">●</span>	Miscarriage
		<span style="color: red;">●</span>	<span style="color: red;">●</span>	<span style="color: white;">●</span>	<span style="color: white;">●</span>	<span style="color: white;">●</span>
<b>CHILD REPRODUCTIVE</b>	<span style="color: red;">●</span>	<span style="color: white;">●</span>	<span style="color: white;">●</span>	<span style="color: white;">●</span>	<span style="color: white;">●</span>	Anogenital distance (girls)
	<span style="color: white;">●</span>	<span style="color: red;">●</span>	<span style="color: white;">●</span>	<span style="color: white;">●</span>	<span style="color: white;">●</span>	Anogenital distance (boys)
	<span style="color: yellow;">●</span>	<span style="color: orange;">●</span>	<span style="color: white;">●</span>	<span style="color: white;">●</span>	<span style="color: white;">●</span>	Puberty (girls)
	<span style="color: white;">●</span>	<span style="color: blue;">●</span>	<span style="color: white;">●</span>	<span style="color: white;">●</span>	<span style="color: white;">●</span>	Puberty (boys)
	<span style="color: yellow;">●</span>	<span style="color: orange;">●</span>	<span style="color: red;">●</span>	<span style="color: white;">●</span>	<span style="color: white;">●</span>	<b>AT LEAST ONE OUTCOME</b>
<b>ADULT REPRODUCTIVE</b>	<span style="color: yellow;">●</span>	<span style="color: orange;">●</span>	<span style="color: red;">●</span>	<span style="color: white;">●</span>	<span style="color: white;">●</span>	Endometriosis
	<span style="color: white;">●</span>	<span style="color: orange;">●</span>	<span style="color: white;">●</span>	<span style="color: white;">●</span>	<span style="color: white;">●</span>	Sperm concentration
	<span style="color: white;">●</span>	<span style="color: orange;">●</span>	<span style="color: white;">●</span>	<span style="color: white;">●</span>	<span style="color: white;">●</span>	Sperm quality: DNA damage
	<span style="color: white;">●</span>	<span style="color: grey;">●</span>	<span style="color: white;">●</span>	<span style="color: white;">●</span>	<span style="color: white;">●</span>	Sperm quality: morphology
	<span style="color: white;">●</span>	<span style="color: grey;">●</span>	<span style="color: white;">●</span>	<span style="color: white;">●</span>	<span style="color: white;">●</span>	Sperm quality: motility
	<span style="color: white;">●</span>	<span style="color: grey;">●</span>	<span style="color: white;">●</span>	<span style="color: white;">●</span>	<span style="color: white;">●</span>	Sperm motion
	<span style="color: red;">●</span>	<span style="color: red;">●</span>	<span style="color: red;">●</span>	<span style="color: orange;">●</span>	<span style="color: orange;">●</span>	<b>AT LEAST ONE OUTCOME</b>
<b>METABOLIC &amp; ENDOCRINE</b>	<span style="color: red;">●</span>	<span style="color: yellow;">●</span>	<span style="color: red;">●</span>	<span style="color: white;">●</span>	<span style="color: white;">●</span>	Type II diabetes
	<span style="color: red;">●</span>	<span style="color: red;">●</span>	<span style="color: grey;">●</span>	<span style="color: white;">●</span>	<span style="color: white;">●</span>	Insulin resistance
	<span style="color: white;">●</span>	<span style="color: orange;">●</span>	<span style="color: white;">●</span>	<span style="color: orange;">●</span>	<span style="color: orange;">●</span>	Thyroid function
	<span style="color: red;">●</span>	<span style="color: white;">●</span>	<span style="color: white;">●</span>	<span style="color: white;">●</span>	<span style="color: white;">●</span>	Polycystic ovarian syndrome
	<span style="color: white;">●</span>	<span style="color: white;">●</span>	<span style="color: red;">●</span>	<span style="color: white;">●</span>	<span style="color: white;">●</span>	Hepatic disease
		<span style="color: white;">●</span>	<span style="color: red;">●</span>	<span style="color: white;">●</span>	<span style="color: red;">●</span>	<span style="color: orange;">●</span>
<b>CHILD NEURO-DEVELOPMENTAL</b>	<span style="color: white;">●</span>	<span style="color: orange;">●</span>	<span style="color: white;">●</span>	<span style="color: red;">●</span>	<span style="color: white;">●</span>	IQ / Cognitive development
	<span style="color: white;">●</span>	<span style="color: red;">●</span>	<span style="color: white;">●</span>	<span style="color: white;">●</span>	<span style="color: white;">●</span>	Fine motor / psychomotor development
	<span style="color: white;">●</span>	<span style="color: white;">●</span>	<span style="color: white;">●</span>	<span style="color: white;">●</span>	<span style="color: orange;">●</span>	ADHD
	<span style="color: red;">●</span>	<span style="color: orange;">●</span>	<span style="color: white;">●</span>	<span style="color: white;">●</span>	<span style="color: red;">●</span>	<b>AT LEAST ONE OUTCOME</b>
<b>NUTRITIONAL</b>	<span style="color: red;">●</span>	<span style="color: orange;">●</span>	<span style="color: white;">●</span>	<span style="color: white;">●</span>	<span style="color: red;">●</span>	Obesity
	<span style="color: white;">●</span>	<span style="color: grey;">●</span>	<span style="color: white;">●</span>	<span style="color: white;">●</span>	<span style="color: red;">●</span>	BMI
	<span style="color: red;">●</span>	<span style="color: orange;">●</span>	<span style="color: white;">●</span>	<span style="color: white;">●</span>	<span style="color: white;">●</span>	Waist circumference
	<span style="color: red;">●</span>	<span style="color: orange;">●</span>	<span style="color: red;">●</span>	<span style="color: white;">●</span>	<span style="color: white;">●</span>	<b>AT LEAST ONE OUTCOME</b>
<b>CIRCULATORY</b>	<span style="color: red;">●</span>	<span style="color: yellow;">●</span>	<span style="color: red;">●</span>	<span style="color: white;">●</span>	<span style="color: white;">●</span>	Cardiovascular disease
	<span style="color: white;">●</span>	<span style="color: white;">●</span>	<span style="color: grey;">●</span>	<span style="color: white;">●</span>	<span style="color: white;">●</span>	Cerebrovascular disease
	<span style="color: red;">●</span>	<span style="color: white;">●</span>	<span style="color: red;">●</span>	<span style="color: white;">●</span>	<span style="color: white;">●</span>	Hypertension
	<span style="color: white;">●</span>	<span style="color: orange;">●</span>	<span style="color: white;">●</span>	<span style="color: white;">●</span>	<span style="color: white;">●</span>	Blood pressure (increased)
	<span style="color: grey;">●</span>	<span style="color: grey;">●</span>	<span style="color: white;">●</span>	<span style="color: white;">●</span>	<span style="color: white;">●</span>	Lipids (HDL, LDL and TGs)
	<span style="color: white;">●</span>	<span style="color: orange;">●</span>	<span style="color: red;">●</span>	<span style="color: white;">●</span>	<span style="color: orange;">●</span>	<b>AT LEAST ONE OUTCOME</b>
<b>RESPIRATORY</b>	<span style="color: white;">●</span>	<span style="color: orange;">●</span>	<span style="color: red;">●</span>	<span style="color: white;">●</span>	<span style="color: grey;">●</span>	Asthma, wheeze & bronchitis
	<span style="color: white;">●</span>	<span style="color: white;">●</span>	<span style="color: white;">●</span>	<span style="color: white;">●</span>	<span style="color: orange;">●</span>	Allergic rhinitis ("hay fever")
<b>SKIN-RELATED</b>	<span style="color: white;">●</span>	<span style="color: white;">●</span>	<span style="color: white;">●</span>	<span style="color: white;">●</span>	<span style="color: grey;">●</span>	Eczema / atopic dermatitis
	<span style="color: white;">●</span>	<span style="color: white;">●</span>	<span style="color: red;">●</span>	<span style="color: white;">●</span>	<span style="color: white;">●</span>	<b>AT LEAST ONE OUTCOME</b>
<b>CANCER</b>	<span style="color: white;">●</span>	<span style="color: white;">●</span>	<span style="color: red;">●</span>	<span style="color: white;">●</span>	<span style="color: white;">●</span>	Total cancer deaths (men)
	<span style="color: white;">●</span>	<span style="color: white;">●</span>	<span style="color: grey;">●</span>	<span style="color: white;">●</span>	<span style="color: white;">●</span>	Total cancer deaths (women)
	<span style="color: white;">●</span>	<span style="color: white;">●</span>	<span style="color: red;">●</span>	<span style="color: white;">●</span>	<span style="color: white;">●</span>	Lung cancer
	<span style="color: white;">●</span>	<span style="color: white;">●</span>	<span style="color: yellow;">●</span>	<span style="color: white;">●</span>	<span style="color: white;">●</span>	Leukaemia
	<span style="color: white;">●</span>	<span style="color: white;">●</span>	<span style="color: red;">●</span>	<span style="color: white;">●</span>	<span style="color: white;">●</span>	Non-Hodgkin's lymphoma
	<span style="color: white;">●</span>	<span style="color: white;">●</span>	<span style="color: orange;">●</span>	<span style="color: white;">●</span>	<span style="color: white;">●</span>	Breast cancer
	<span style="color: white;">●</span>	<span style="color: white;">●</span>	<span style="color: yellow;">●</span>	<span style="color: white;">●</span>	<span style="color: white;">●</span>	Uterine cancer
	<span style="color: white;">●</span>	<span style="color: white;">●</span>	<span style="color: red;">●</span>	<span style="color: white;">●</span>	<span style="color: white;">●</span>	Liver cancer
	<span style="color: white;">●</span>	<span style="color: white;">●</span>	<span style="color: yellow;">●</span>	<span style="color: white;">●</span>	<span style="color: white;">●</span>	Pancreatic cancer
	<span style="color: white;">●</span>	<span style="color: white;">●</span>	<span style="color: grey;">●</span>	<span style="color: white;">●</span>	<span style="color: white;">●</span>	Stomach cancer
	<span style="color: white;">●</span>	<span style="color: white;">●</span>	<span style="color: grey;">●</span>	<span style="color: white;">●</span>	<span style="color: white;">●</span>	Rectal cancer
	<span style="color: white;">●</span>	<span style="color: white;">●</span>	<span style="color: red;">●</span>	<span style="color: white;">●</span>	<span style="color: white;">●</span>	Malignant melanoma

