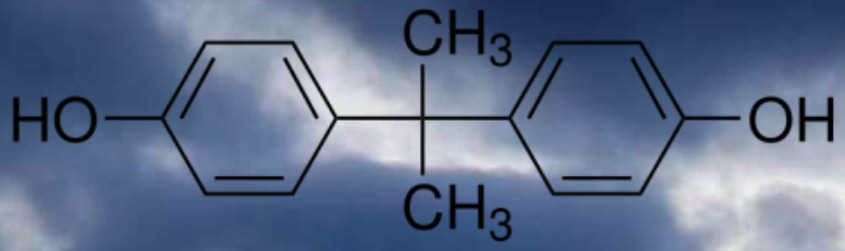
Frie foredrag

Norsk Yrkeshygienisk Forenings årskonferanse Bergen 3.-5. November 2008



Yrkeseksponering av bisfenol A - noe vi må ta på alvor!

Halvor Erikstein

Sertifisert yrkeshygieniker / organisasjonssekretær

Sammenslutningen av fagorganiserte i energisektoren.

SAFE

halvor@safe.no www.safe.no

Svært god oversiktsartikkel omkring BPA

Battles Over Bisphenol A

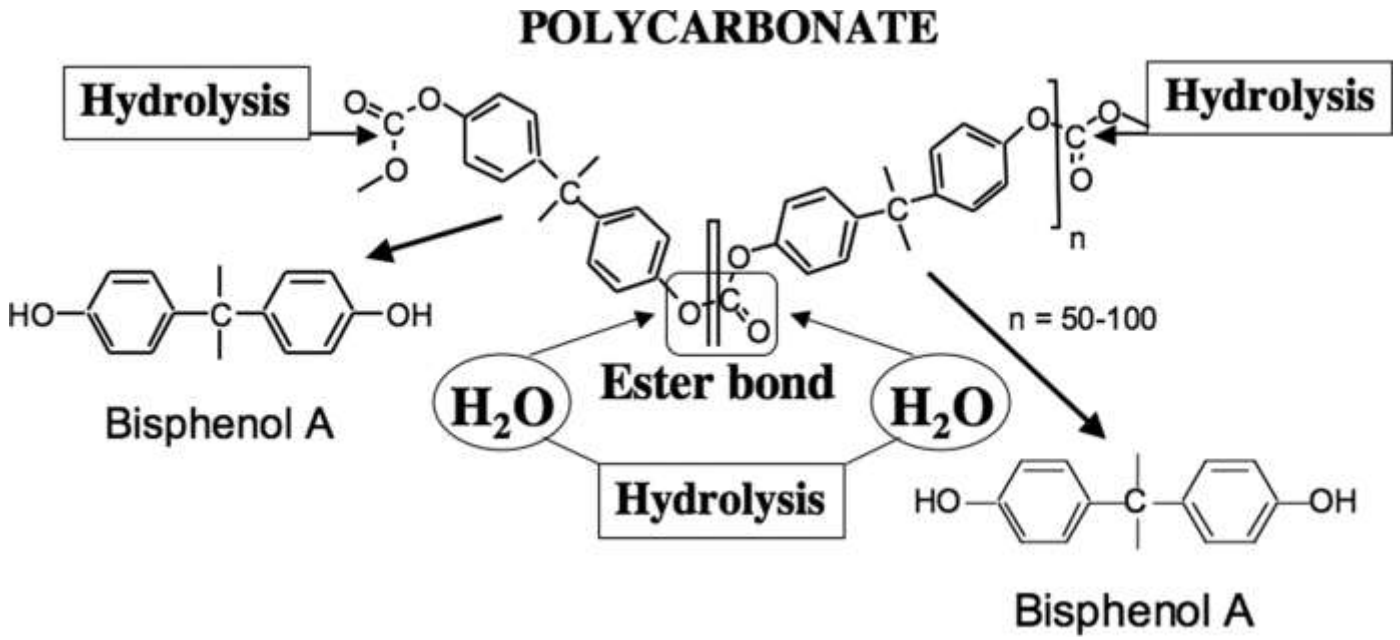
By Sarah Vogel, 4/16/08

Overview

Bisphenol A is an estrogenic chemical primarily used in the production of two major plastics: polycarbonate and epoxy resin. Polycarbonate is a hard, rigid plastic used in kitchen appliances, chocolate molds, baby bottles, reusable water bottles, compact discs (CDs), digital video discs (DVDs), and water coolers. Epoxy resins are used as strong adhesives and coatings in products such as food and beverage can (including beer) liners, drum liners, paints, dental sealants, and water main filters. Over the past decade hundreds of studies reporting developmental, reproductive, behavioral and neurological effects of low dose exposure to bisphenol A ignited a contentious debate over the chemical's safety. [1] Despite mounting evidence of low dose effects of bisphenol A in laboratory animals, representatives of the plastics industry and bisphenol A producers continue to maintain that bisphenol A is safe at low doses. [2]

http://www.defendingscience.org/case_studies/Battles-Over-Bisphenol-A.cfm

FIG. 1. Schematic diagram depicting hydrolysis of the ester bond linking BPA molecules to form polycarbonate plastic

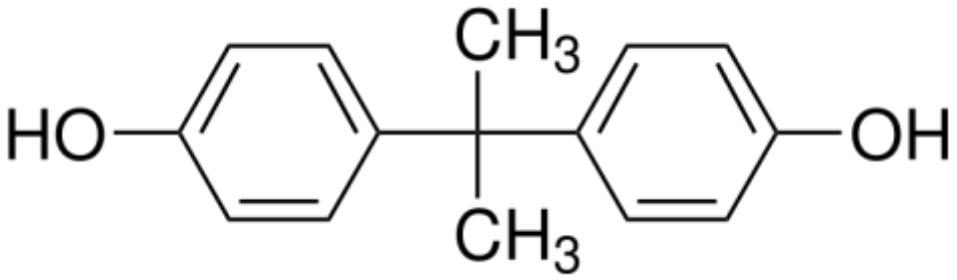


Welshons, W. V. et al. Endocrinology 2006;147:s56-s69

Endocrinology

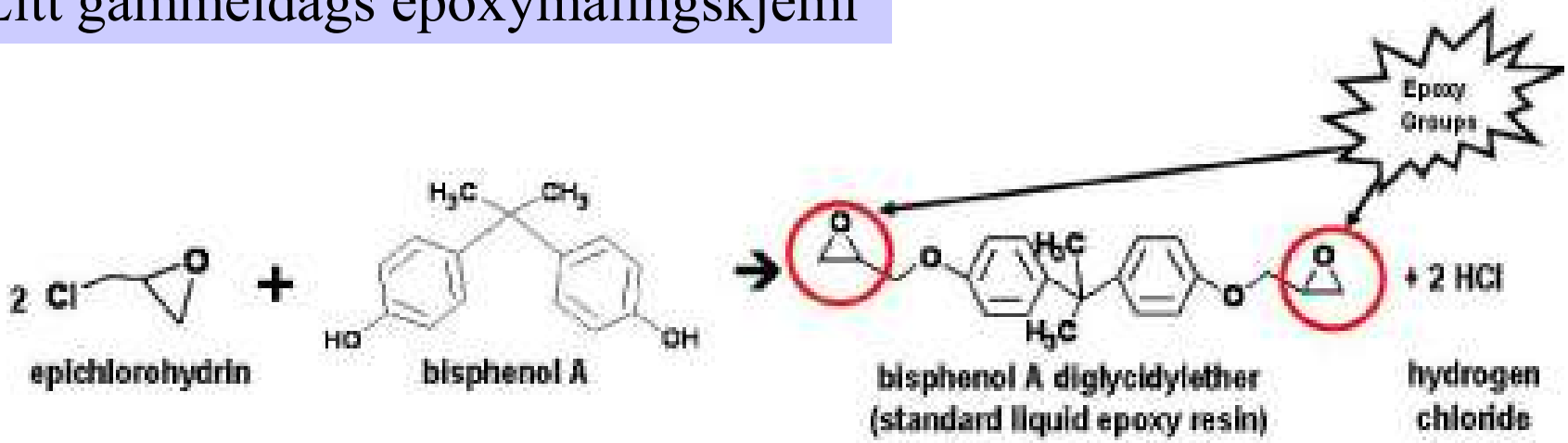
BPA lekker ut fra plast

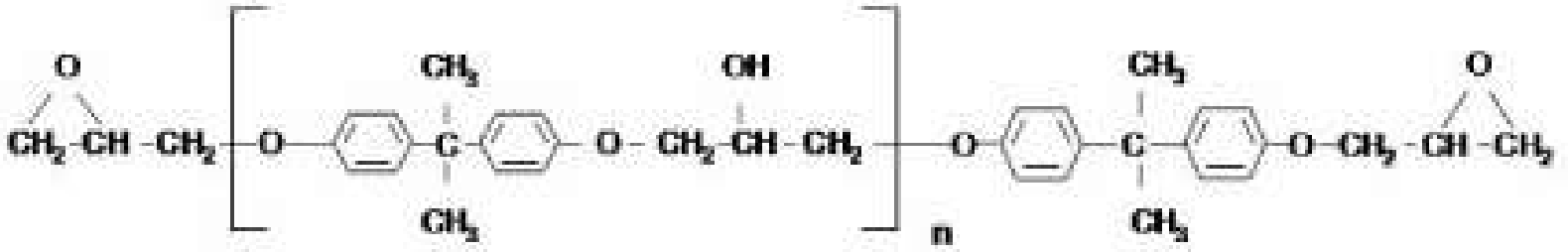
Bisfenol A (BPA)



Battles Over Bisphenol A
http://www.defendingscience.org/case_studies/Battles-Over-Bisphenol-A.cfm

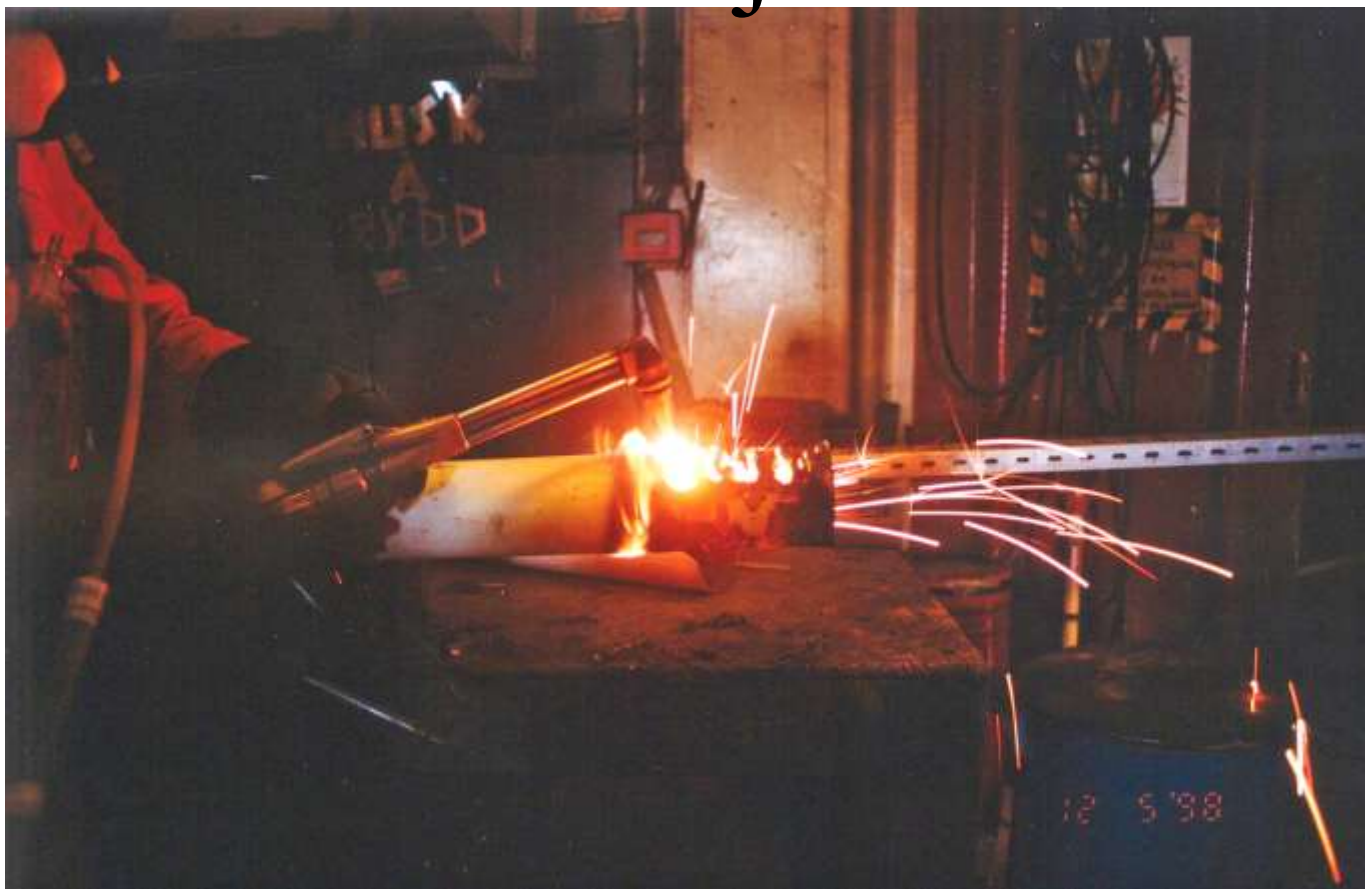
Litt gammeldags epoxymalingskjemi





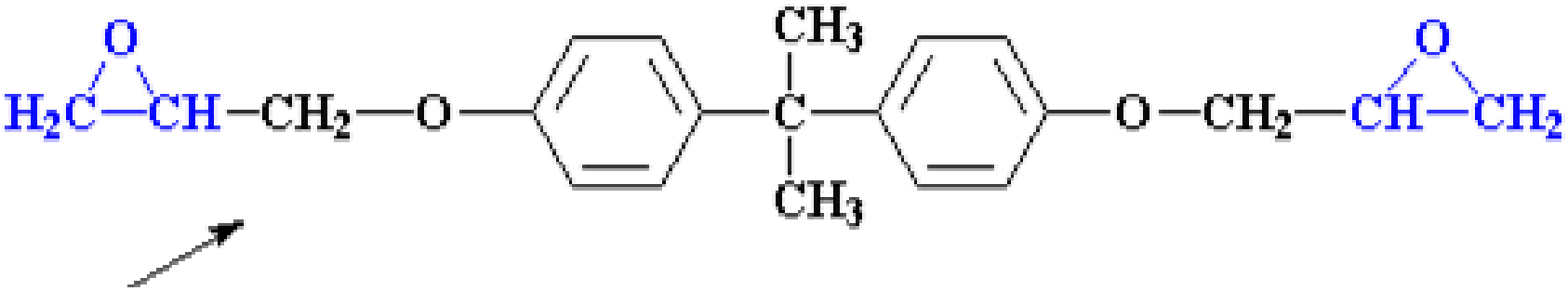
http://www.dow.com/productsafety/finder/bisphenol.htm

Brenning på maling. Hva kan skje?



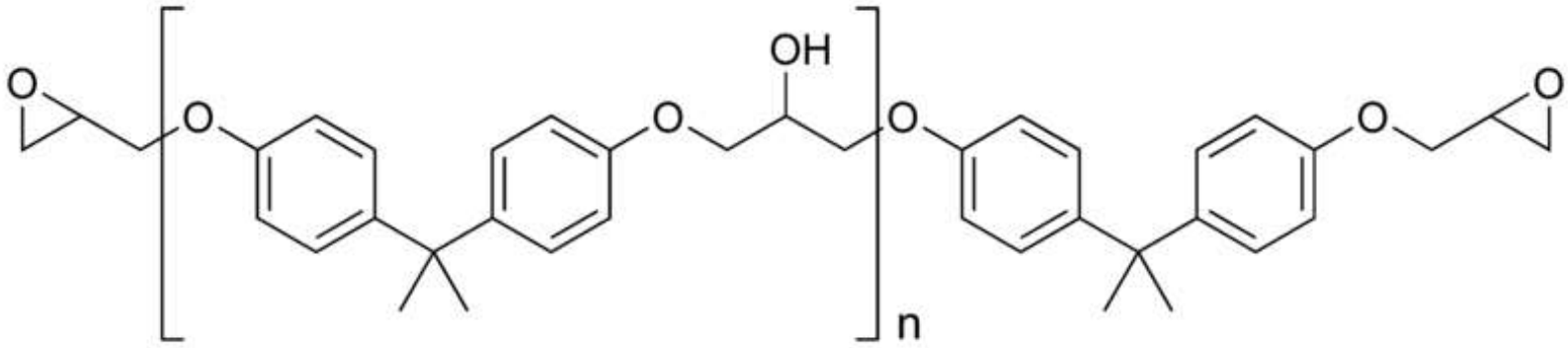
Present knowledge regarding exposure and possible health effects of "hot work" in coated metal parts offshore
http://www.ptil.no/getfile.php/PDF/Vedlegg7.pdf

To nyttige hjemmesider for polymerkjemi



Welcome to the Macrogalleria, where you can learn all kinds of nifty stuff about polymers and polymer science!
http://pslc.ws/macrog/maindir.htm
Making Epoxy Resins http://pslc.ws/macrog/eposyn.htm

Diglycidyleter av bisfenol a tilbakedanner BPA ved termisk dekomponering



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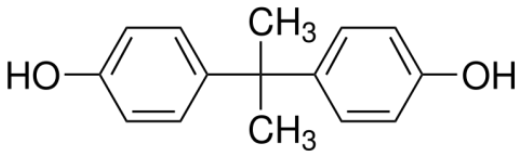
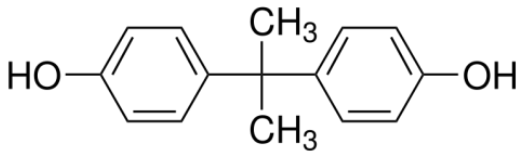
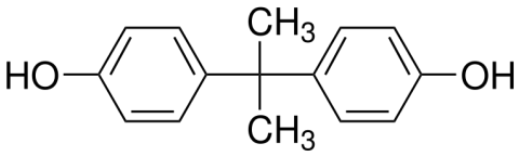






Bisfenol A - diabetes

Research | Review

Large Effects from Small Exposures. I. Mechanisms for Endocrine-Disrupting Chemicals with Estrogenic Activity

Wade V. Welshons,[1] Kristina A. Thayer,[2] Barbara M. Judy,[1] Julia A. Taylor,[1] Edward M. Curran,[1] and Frederick S. vom Saal[2]

[1]Department of Veterinary Biomedical Sciences and [2]Division of Biological Sciences, University of Missouri-Columbia, Columbia, Missouri, USA

Large Effects from Small Exposures. III. Endocrine Mechanisms Mediating Effects of Bisphenol A at Levels of Human Exposure
Wade V. Welshons, Susan C. Nagel and Frederick S. vom Saal

http://endo.endojournals.org/cgi/content/full/147/6/s56?ijkey=af3f8bc2d5116a4889a97f2f2b9a97dc643e4fbd

http://www.ehponline.org/science-ed/2006/bpa.pdf

Sammenheng mellom BPA , diabetes og hjerte-karlidelser?

Association of Urinary Bisphenol A Concentration With Medical Disorders and Laboratory Abnormalities in Adults Iain A. Lang, PhD; Tamara S. Galloway, PhD; Alan Scarlett, PhD; William E. Henley, PhD; Michael Depledge, PhD, DSc; Robert B. Wallace, MD; David Melzer, MB, PhD

JAMA. 2008;300(11):1303-1310. Published online September 16, 2008 (doi:10.1001/jama.300.11.1303).

http://jama.ama-assn.org/cgi/content/full/300/11/1303

Odds Ratios of Diseases and Conditions Associated With a 1-SD Increase in Bisphenol A Concentration

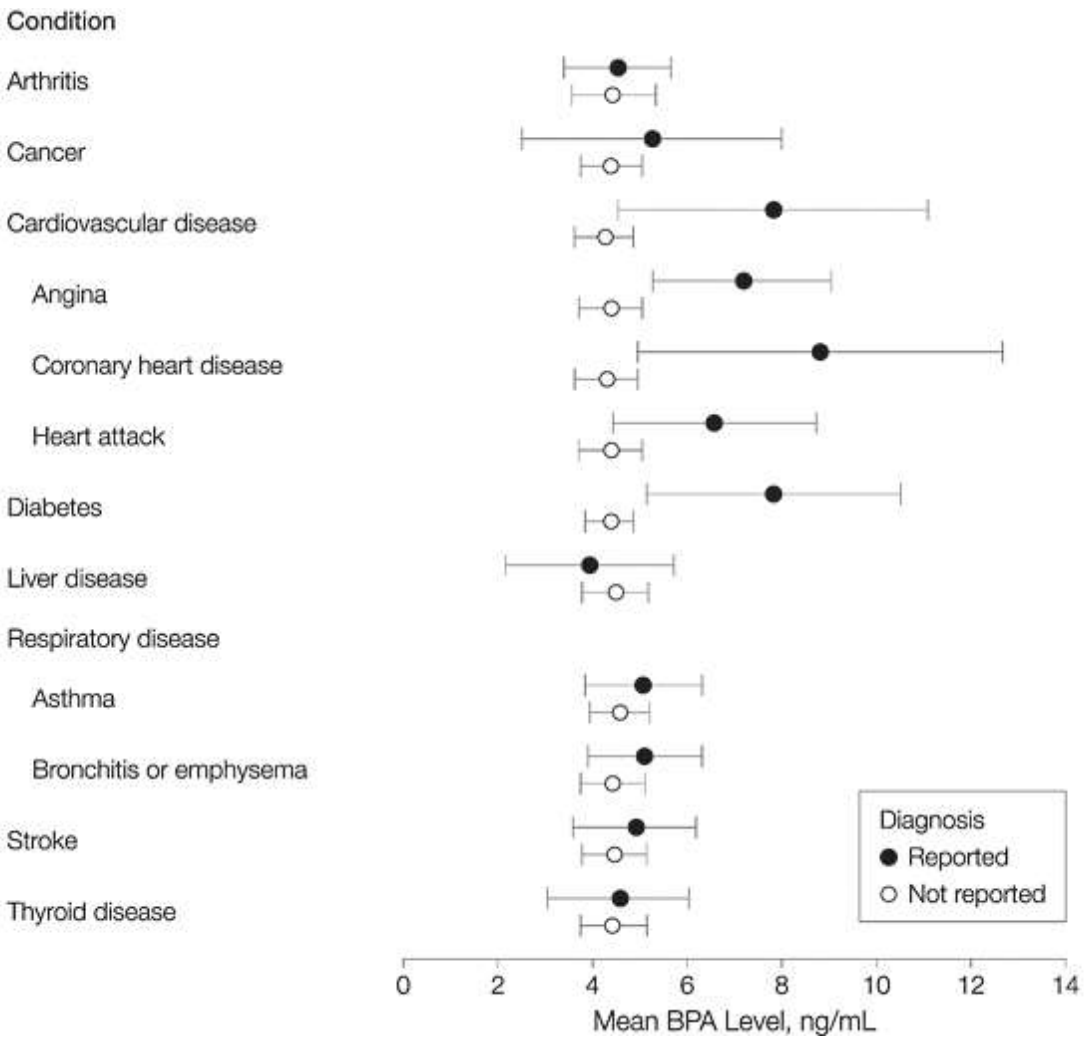
Table 2. Odds Ratios of Diseases and Conditions Associated With a 1-SD Increase in Bisphenol A Concentration

Disease/Condition	Unweighted, No./Total	Weighted %	Model 1[a]		Model 2[b]	
			OR (95% CI)	*P* Value	OR (95% CI)	*P* Value
Arthritis	312/1273	22.98	0.99 (0.77 to 1.28)	.96	0.97 (0.78 to 1.21)	.75
Cancer	77/1275	6.77	1.12 (0.85 to 1.48)	.38	1.14 (0.86 to 1.52)	.33
Cardiovascular disease	79/1272	4.76	1.36 (1.16 to 1.60)	.001	1.39 (1.18 to 1.63)	.001
Angina	42/1274	2.66	1.26 (1.10 to 1.44)	.002	1.28 (1.09 to 1.50)	.006
Coronary heart disease	46/1276	2.83	1.41 (1.09 to 1.82)	.01	1.63 (1.18 to 2.26)	.006
Heart attack	42/1277	2.79	1.33 (1.08 to 1.64)	.01	1.40 (1.11 to 1.78)	.008
Diabetes	136/1455	7.94	1.40 (1.21 to 1.63)	<.001	1.39 (1.21 to 1.60)	<.001
Liver disease	55/1274	3.89	0.77 (0.40 to 1.49)	.42	0.74 (0.37 to 1.44)	.35
Respiratory disease						
Asthma	174/1454	12.35	1.02 (0.89 to 1.18)	.75	0.98 (0.84 to 1.14)	.80
Bronchitis or emphysema	81/1274	6.47	1.03 (0.81 to 1.30)	.82	0.98 (0.74 to 1.29)	.87
Stroke	40/1278	2.35	0.99 (0.83 to 1.19)	.95	0.97 (0.74 to 1.27)	.82
Thyroid disease	115/1275	10.03	1.13 (0.89 to 1.43)	.30	1.09 (0.88 to 1.37)	.40

Abbreviations: CI, confidence interval; OR, odds ratio.
[a] Adjusted for age, sex, and urinary creatinine concentration.
[b] Adjusted for age, sex, race/ethnicity, education, income, smoking, body mass index, waist circumference, and urinary creatinine concentration.

Lang, I. A. et al. JAMA 2008;300:1303-1310.

Estimated Mean Bisphenol A (BPA) Concentrations in Relation to Reported Diseases and Conditions



Lang, I. A. et al. JAMA 2008;300:1303-1310.

JAMA

Association of UrinaryBisphenolAConcentration With Medical Disorders and Laboratory Abnormalities in Adults

Iain A. Lang, PhD
Tamara S. Galloway, PhD
Alan Scarlett, PhD
William E. Henley, PhD
Michael Depledge, PhD, DSc
Robert B. Wallace, MD
David Melzer, MB, PhD

Context Bisphenol A (BPA) is widely used in epoxy resins lining food and beverage containers. Evidence of effects in animals has generated concern over low-level chronic exposures in humans.

Objective To examine associations between urinary BPA concentrations and adult health status.

Design, Setting, and Participants Cross-sectional analysis of BPA concentrations and health status in the general adult population of the United States, using data from the National Health and Nutrition Examination Survey 2003-2004. Participants were 1455 adults aged 18 through 74 years with measured urinary BPA and urine creatinine concentrations. Regression models were adjusted for age, sex, race/ ethnicity, education, income, smoking, body mass index, waist circumference, and urinary creatinine concentration. The sample provided 80% power to detect unadjusted odds ratios (ORs) of 1.4 for diagnoses of 5% prevalence per 1-SD change in BPA concentration, or standardized regression coefficients of 0.075 for liver enzyme concentrations, at a significance level of *P*.05.

Main Outcome Measures Chronic disease diagnoses plus blood markers of liver function, glucose homeostasis, inflammation, and lipid changes.

Results Higher urinary BPA concentrations were associated with cardiovascular diagnoses in age-, sex-, and fully adjusted models (OR per 1-SD increase in BPA concentration, 1.39; 95% confidence interval [CI], 1.18-1.63; *P*=.001 with full adjustment). Higher BPA concentrations were also associated with diabetes (OR per 1-SD increase in BPA concentration, 1.39; 95% confidence interval [CI], 1.21-1.60; *P*.001) but not with other studied common diseases. In addition, higher BPA concentrations were associated with clinically abnormal concentrations of the liver enzymes -glutamyltransferase (OR per 1-SD increase in BPA concentration, 1.29;95%CI, 1.14-1.46; *P*.001) and alkaline phosphatase (OR per 1-SD increase in BPA concentration, 1.48; 95% CI, 1.18-1.85; *P*=.002).

Conclusion HigherBPAexposure, reflected in higher urinary concentrations of BPA,may be associated with avoidable morbidity in the community-dwelling adult population.

JAMA. 2008;300(11):1303-1310 www.jama.com

http://jama.ama-assn.org/cgi/reprint/300/11/1303

DRUG COMPANIES fund most of the research on the health risks of their products. All too often the firms highlight studies showing that the drugs are safe and downplay less reassuring results.

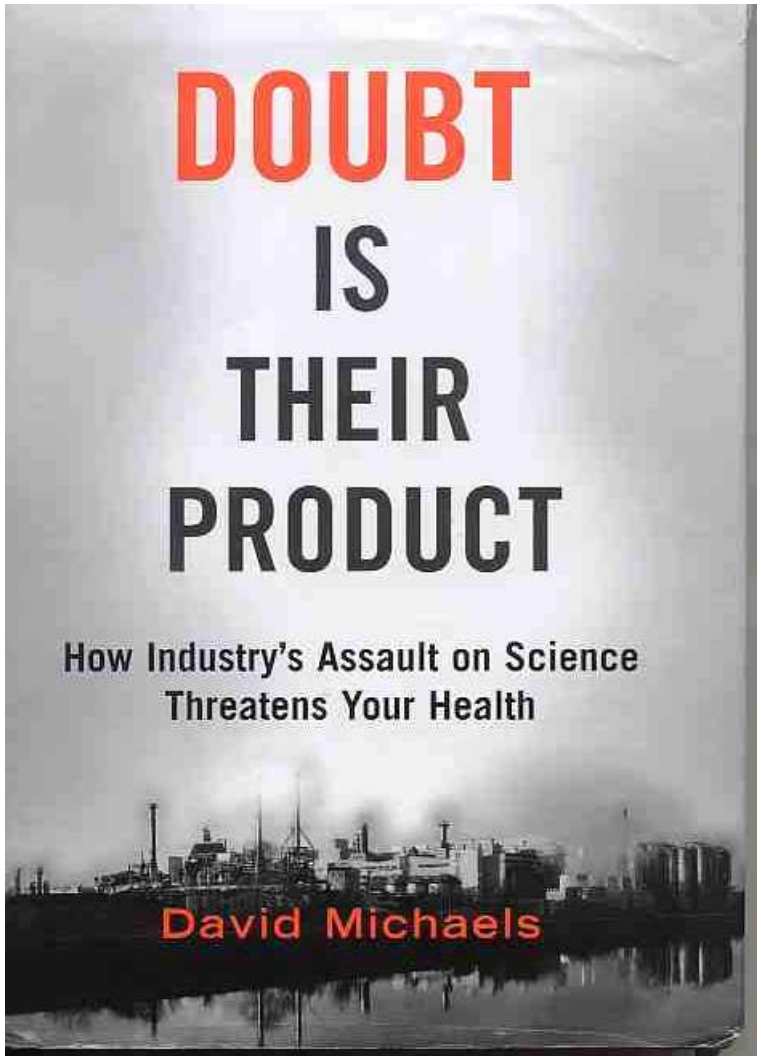
Industry groups are fighting government regulation by fomenting scientific uncertainty

DOUBT Is Their Product

By David Michaels
Photographs by Mindy Jones

http://www.defendingscience.org/upload/Doubt-is-their-Product.pdf

Årets viktigste bok; ”Doubt is ther product”



http://www.defendingscience.org/Doubt_is_Their_Product.cfm

Svært god og nyttig blogg

The Pump Handle

A water cooler for the public health crowd

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- Setting OSHA Straight on Injuries vs. Illness
- Widows Take Aim in KY Governor's Race
- Living in a Chemical World
- Occupational Health News Roundup

Gazette's Ken Ward Featured on EXPOSE

Saturday, November 3rd in Confined Space @ TPH, Mining, Occupational Health & Safety, Regulation by cmonforton | No comments

The *Charleston Gazette's* Ken Ward, one of the few reporters in the country who writes consistently about worker health and safety issues, is featured on *EXPOSE: America's Investigative Reports*. The episode entitled "Sustained Outrage" depicts Ward's approach to covering coal mine disasters like the 2006 Sago tragedy:

> "When other reporters are zigging, I'm zagging."

describing his talent for investigating these fatalities well beyond the headline and long after the cameras are turned off. The 24-minute episode describes how Ken Ward created a database using information from more than 300 MSHA investigation reports covering the last 10 years. His story "Disasters

http://thepumphandle.wordpress.com/

Resolusjon SAFE kongress oktober 2008
Krav til kartlegging av hormonhermere i arbeidsmiljøet

Hormonhermere er kjemiske forbindelser som er så like kroppens hormoner at de lurer kroppens eget hormonsystem. Det er i dag sterk forskning som har påvist sammenheng mellom hormonhermere i matvarer og økning i diabetes og hjerte- og karsykdommer.

Tilsvarende forbindelser finnes i store mengder i det kjemiske arbeidsmiljøet. Vi krever at arbeidsmiljø-myndighetene øyeblikkelig setter i gang et prosjekt for kartlegging av eksponering og forekomst av helseskader. Vi er spesielt opptatt av at det blir foretatt eksponeringsstudier av forbindelsen bisfenol A (BPA) som blant annet er mye benyttet i maling.

http://www.safe.no/news.cfm?id=213439