


### Myth 1 - Chemicals aren't tested


Dr. Sanjay Gupta (June 2010) -

*"There are about 80,000 chemicals out there and we are exposed to a lot of them on a regular basis . . . only about 200 have been tested for safety concerns, and only about 5 have been regulated."*



### Reality - Chemical Testing

- 10-20,000 chemicals in commerce
  - most produced in small quantities
  - only 2,800 considered high production (>1 million pounds/year) by EPA
- Basic safety information is available for the high production chemicals
  - many chemicals, like the phthalates, are very well studied
- Extensive regulations
  - ~90 drinking water standards
  - ~200 hazardous air pollutants
  - nearly 700 subject to TRI reporting



### Myth 2 - Widespread increase in infertility

*"Chemicals . . . may be the culprit for the widespread increase . . . in infertility, obesity, diabetes and cardiovascular disease."*

Congressman Edward Markey D-MA  
February 2010



### Reality - Births & Birth Rate

Data from the Centers for Disease Control and Prevention (CDC) -

NOTE: Beginning with 1959, trend lines are based on registered live births; trend lines for 1930-1958 are based on live births adjusted for underreporting.  
SOURCE: CDC/NCHS, National Vital Statistics System.

### Reality - Infertility Counseling

- Evidence cited - number of women seeking help for infertility
  - 12% in 2002, according to CDC
  - "40% increase from 1982" - NRDC
- Includes women who sought any kind of help
  - including advice and testing
  - more common among older women
    - 29% were aged 40-44
- 2002 data actually represent a decline from mid 1990s
  - 16% of women sought help in 1995
  - % of women considered "infertile" declined from 1982 to 2002

### Reality - Sperm Counts

- Reduced sperm count (Carlsen et al 1992)
  - data from multiple studies
  - claim of 50% reduction in average count since 1940s
- Subsequent studies have been conflicting
  - results suggest geographic variation
- Reanalysis of Carlsen suggests flaws (Saidi et al 1999)

### Reality - Sperm Counts (cont.)

- Danish monitoring program
  - Since 1996
  - 18-year olds (total - 5000 volunteers)
- National Board of Health
  - Sperm counts are not decreasing
  - If there was a trend before 1996, it appears to be reversed

### Myth 3 - Childhood cancer is epidemic

Dr. Philip J. Landrigan, Mt Sinai Medical Center (September 2008) -

*"While mortality from childhood cancer has gone sharply down, incidence rates are increasing . . ."*

*"Serious consideration must be given to the possibility that environmental factors are involved."*

### Myth 3 - Childhood cancer is epidemic (cont.)

Acute lymphocytic leukemia (ALL)

*"An 81% increase between 1975 and 2005"*  
Dr. Landrigan

Leukemia, brain cancer & other childhood cancers

*"increased by more than 20% since 1975"*  
Safer Chemicals, Healthy Families (website)

*"Steady increase . . . over a 30-year span can not be explained by better diagnostics"*  
President's Cancer Panel, April 2010

### Reality - Childhood Cancer

National Cancer Institute (NCI), 1999 -

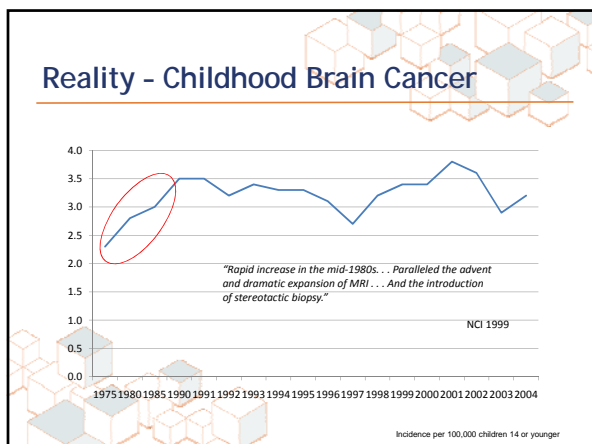
*"no substantial change in incidence for the major pediatric cancers, and rates have remained relatively stable since the mid-1980s. The modest increases . . . were confined to the mid-1980s."*

*"increases likely reflected diagnostic improvements or reporting changes."*

### Reality - ALL

*"In parallel with the initial rise in ALL in the mid-to-late 1970s, the incidence of other and unspecified leukemias declined . . . consistent with a shift in histopathologic classification."*  
CDC 1999

Incidence per 100,000 children 14 or younger



### Myth 4 - Chemicals are making us fat

*“You’ve been unknowingly eating chemicals that have been making you fat.”*

*“Obesogens may be a ‘big part’ of the weight gain we’ve experienced since the 1960s.”*

Dr. Oz  
September 22, 2010

### Reality - Obesity

“The key causes are increased consumption of energy-dense foods high in saturated fats and sugars, and reduced physical activity”

World Health Org (2010)

“78% of Americans fail to meet even the basic level of activity recommended”

- “- 25% live a completely sedentary life”

ObesityFacts.com

### Myth 5 - Phthalates affect male development

*“Phthalates are considered endocrine disruptors, and studies have shown a statistical association between phthalate exposure and male sexual development.”*

CNN website posted May 31, 2010

### Reality - Phthalates

- There are 50+ compounds in the phthalates family
  - Exhibit a wide variety of physical and chemical properties
  - A few have been found to cause developmental effects in male rats
  - No effects seen in mice or non-human primates
- Human evidence is based on a single clinical study
  - Never been replicated
- Study largely ignored by authoritative bodies in US & Europe

### Get Involved

For more information -

<http://www.phthalates.org>  
[steve\\_risotto@americanchemistry.com](mailto:steve_risotto@americanchemistry.com)  
 (202) 249-6727