OVERTHEPASTFEWDÉCADES,THE
reproductive health of Americans appears
to have declined. Diseases, disorders and
conditions that affect the development
and functioning of the male and female
reproductive systems—including fertility
problems, miscarriages, pre-term births, low
birthweights and certain birth defects—have
risen. In addition, incidence rates of testicular
cancerhaveincreased, and breast and prostate cancers remain among the most common forms
of cancer in the U.S. The exact role of environmental chemical exposures in reproductive
healthremainsclear, and a variety offactors likely contribute to these increases. A growing
body of scientific evidence, however, has linked exposure to some toxic chemicals to a range of
reproductive and childhood developmental problems.

For example, endocrine disruptors, some of which are found in everyday consumer products, can
detrimentallymimic, block or change the levels of hormones that control fertility, reproduction
and fetal development. Several endocrine-disrupting chemicals are common in the environment
and have been found both in breast milk and umbilical cord blood. A brief overview of these
chemicals and their effects observed in human and animal studies is presented in the chart on
the next page.

Scientists have identified fetal development and the first few years of life as critical windows
of vulnerability to endocrine-disrupting chemicals. Exposures to a variety of chemicals at
conception, in pregnancy or during infancy can disrupt hormones and cause irreparable, lifelong
Chemical Exposures and Reproductive Health Effects

<table>
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<tr>
<th>ENDOCRINE-DISRUPTING CHEMICAL</th>
<th>EFFECTS IN HUMAN AND/OR ANIMAL STUDIES</th>
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</table>
| Diethylstilbestrol (DES)      | Hypospadias (a defect in the male urethra)  
|                               | Micropenis                                
|                               | Vaginal cancer                            
|                               | Infertility                                |
| Dioxins                       | Breast cancer                             
|                               | Altered breast development                
|                               | Earlier menopause                         
|                               | Impaired ovary function                   |
| Polychlorinated Biphenyls (PCBs) | Reduced penis length and fertility         
|                               | Decreased testosterone levels             
|                               | Poorer semen quality                      
|                               | Delayed puberty                           
|                               | Endometriosis                             |
| Phthalates                    | Reduced anogenital distance               
|                               | Decreased sperm counts                    
|                               | Shorter pregnancy                         |
| Bisphenol A (BPA)             | Increased prostate size                   
|                               | Decreased testosterone levels             
|                               | Early puberty                             |

resulting in widespread exposure to chemical mixtures. Surveys by the U.S. Centers for Disease Control and Prevention have identified measurable levels of more than 200 synthetic chemicals in the blood and urine of Americans, and virtually everyone in the United States has at least some of these substances in their bodies.\(^27\) The actual risk posed to people by these complex mixtures has yet to be determined, but even the limited data indicate that manufacturers, regulators, physicians and consumers should pay close attention to the emerging scientific evidence as new national policies are developed.\(^28\)

Although TSCA was enacted in 1976, most of the 80,000 chemicals in commerce have not been tested for reproductive health effects, nor have there been meaningful regulatory actions to manage exposure to most reproductive toxins.\(^24\)-\(^25\) Eighty percent of the 3,000 high production volume chemicals in commerce have not been tested for developmental or pediatric toxicity.\(^26\) More than 700 of these chemicals are used in consumer products,

“...most of the 80,000 chemicals in commerce have not been tested for reproductive health effects...”
ENDNOTES

26 Ibid.