



BIRTH DEFECTS

FACT SHEETS ON HEALTH AND ENVIRONMENT IN WASHINGTON

INTRODUCTION

About 3% of babies in the United States have birth defects.¹ About 150,000 babies are born each year with birth defects.²

Some environmental contaminants are associated with birth defects, such as hypospadias (an abnormality of the penis), oral clefts and spina bifida.

Most birth defects are caused by a mix of environmental, genetic and lifestyle factors.³ The exact causes of about 60-70% of birth defects are not known.

PROPORTION OF BIRTH DEFECTS DUE TO ENVIRONMENTAL CONTAMINANTS

The World Health Organization has estimated that 5% of all birth defects are due to the environment.⁴

BIRTH DEFECTS IN WASHINGTON STATE

- Birth defects accounted for about 1 in 4 infant deaths in Washington in 2002.⁵
- An estimated 2,400 - 3,200 Washington children are diagnosed with birth defects every year.⁶ Birth defects must be reported to the Washington State Department of Health.
- About 800 babies are born with heart defects or congenital heart disease every year in Washington state.^{7,8}
- About 200 male babies are born with hypospadias (an abnormality of the penis) every year in Washington state.^{8,9}
- High rates of neural tube defects were found in counties near the Hanford nuclear energy site near Richland, Washington.¹⁰

- Mothers who smoke increase their babies' risk of congenital urinary tract abnormalities¹¹ and asthma.¹²
- Birth defects in Washington state caused by environmental contaminants cost between \$4.2 and \$10.9 million annually (in 2004 dollars), including direct health care and indirect costs.¹³ The estimated lifetime costs for children born each year in the US with a significant birth defect are about \$8 billion (in 1992 dollars).¹⁴
- Lead, mercury, polychlorinated biphenyls (PCBs), alcohol, manganese, pesticides and tobacco smoke are linked with neurological birth defects. Lead, dioxins, PCBs and polybrominated biphenyls (PBBs) are linked with immune system defects.¹⁵

COMPARING WASHINGTON STATE NATIONALLY

In 2004, birth defects accounted for about 1 in 5 infant deaths in the United States. The rate for Washington was 1 in 4. Hawaii had the lowest rate, with 1 in 8 infant deaths due to birth defects. Washington, D.C.; Mississippi; South Carolina and Vermont had rates of 1 in 7. Alaska and Idaho had rates of 1 in 3.¹⁶

In 2003, the Washington State Birth Defect registry received a "D" grade from the Trust for America's Health.¹⁷ Only eight states got a worse rating. This means that Washington does not have a good birth defect registry.

SOURCES

- 1 <http://www.cdc.gov/ncbddd/bd/faq1.htm#CommonBD>
- 2 http://www.marchofdimes.com/pnhec/4439_1206.asp
- 3 <http://www.cdc.gov/ncbddd/bd/nbdps.htm>
- 4 http://www.who.int/quantifying_ehimpacts/publications/preventingdisease/en/index.html
- 5 <http://www.marchofdimes.com/peristats/tlanding.aspx?reg=53&top=16&lev=0&slev=4>
- 6 <http://www.doh.wa.gov/notify/nc/birthd.htm>
- 7 <http://heart.healthcentersonline.com/congenitalheartdisease/congenitalheart.cfm>
- 8 <http://www.ofm.wa.gov/databook/>
- 9 <http://pediatrics.aappublications.org/cgi/content/abstract/peds.2004-1552v1>
- 10 Sever LE, Hessol NA, Gilbert ES, and McIntyre JM. (1988) The Prevalence of Congenital Malformations at Birth in Communities near the Hanford Site. *American Journal of Epidemiology* 127(2):243-254.
- 11 http://www.ajph.org/cgi/content/abstract/86/2/249?maxtoshow=&HITS=10&hits=10&RESULTFORMAT=1&author1=Li%2C+DK&andorexacttitle=phrase&andorexacttitleabs=and&andorexactfulltext=and&searchid=1138827616331_3034&FIRSTINDEX=0&sortspec=relevance&volume=86&firstpage=249&journalcode=ajph
- 12 Singh S, Barrett E, Kalra R, et al. Prenatal cigarette smoke decreases lung cAMP and increases airway hyper-responsiveness. *Am J Respir Crit Care Med* 168(3): 342-347, 2003.
- 13 http://www.nwpublichealth.org/docs/nph/f2005/web_ex_davies_f2005.pdf
- 14 <http://www.cbtmp.org/pdf/uscost.pdf>
- 15 http://www.healthandenvironment.org/birth_defects/peer_reviewed
- 16 <http://www.marchofdimes.com/peristats/tlanding.aspx?reg=53&top=16&lev=0&slev=4>
- 17 <http://healthyamericans.org/state/birthdefects/display.php?StateID=WA>