

BIRTH DEFECTS PROFILE

North Central Florida

ALACHUA, BRADFORD, CITRUS, COLUMBIA, DIXIE, GILCHRIST, HAMILTON, HERNANDO, LAFAYETTE, LAKE, LEVY, MARION, PUTNAM, SUMTER, SUWANNEE & UNION COUNTIES

1 in 28 infants are born with a major birth defect in Florida.

Birth defects are the leading cause of infant deaths in Florida.

In the U.S., \$2.6 billion are spent annually on hospitalization cost for birth defects.

In 2007, more than 9,000 infants were born with a major birth defect in Florida.



The Florida Birth Defects Registry (FBDR):

- ▶ Provides timely and accurate public health information on birth defects that may be used to monitor rates, investigate causes, develop prevention strategies, detect clusters, and make policy decisions
- ▶ Addresses and responds to community concerns about environmental effects on birth defects and birth outcomes
- ▶ Develops strategies for implementing and evaluating prevention efforts
- ▶ Provides data to study the causes of birth defects and epidemiologic studies to inform prevention efforts

In 2009, North Central Florida was home to 269,000 women of reproductive age, including:

- ▶ 192,000 White non-Hispanic women
- ▶ 40,500 Black non-Hispanic women
- ▶ 30,000 Hispanic women

Every year in North Central Florida:

- ▶ About 15,000 babies are born
- ▶ 1 in 38 or 400 infants with a major structural and/or genetic birth defect are identified

▼ Frequency and prevalence rates of selected birth defects for North Central Florida and the State of Florida, The Florida Birth Defects Registry 1998–2007.

BIRTH DEFECT	NORTH CENTRAL FLORIDA		FLORIDA	
	No. of cases (1998–2007)	Birth prevalence ¹	Average annual no. of cases	Birth prevalence ¹
CENTRAL NERVOUS SYSTEM				
Anencephalus	5	0.3	10	0.5
Spina bifida without anencephalus	46	3.1	70	3.3
CARDIOVASCULAR				
Transposition of great arteries	63	4.2	94	4.4
Tetralogy of Fallot	92	6.2	114	5.3
Coarctation of the aorta	113	7.6	125	5.9
Hypoplastic left heart syndrome	52	3.5	59	2.8
OROFACIAL				
Cleft lip with and without cleft palate	171	11.4	181	8.5
Cleft palate without cleft lip	81	5.4	110	5.1
MUSCULOSKELETAL				
Upper limb defect	35	2.3	40	1.9
Lower limb defect	29	1.9	29	1.4
Gastroschisis	66	4.4	75	3.5
CHROMOSOMAL				
Down syndrome	196	13.1	280	13.1
TOTAL NO. OF LIVE BIRTHS 1998–2007	149,527		2,135,079	

¹Rates are calculated per 10,000 live births



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Economic Impact of Birth Defects for North central Florida:

- ▶ Each case of spina bifida is estimated to cost **\$636,000** in lifetime societal costs. Each year, 5 cases of spina bifida are identified in north central Florida with an estimated cost of **\$3.2 million**.
- ▶ Approximately 20 children are born with Down syndrome in North central Florida each year, corresponding to **\$9 million** in total lifetime medical, non-medical, and indirect costs.
- ▶ The mean cost of hospitalizations for a child with an orofacial cleft, within the first two years of life, is **\$21,090**. For North central Florida that translates into over **\$527,000** annually in hospitalizations.
- ▶ Gastroschisis repair costs (in 1992) was estimated at **\$108,000**; approximately 7 cases are identified each year in North central Florida corresponding to **\$756,000**.

Of the babies born in North Central Florida EACH YEAR approximately:¹

- ▶ **9,500 or 57%** of births are covered by Medicaid.
- ▶ **7,600 or 45%** are born to an overweight or obese mother. Overweight and obese women may be more likely to have a baby born with a congenital heart defect, neural tube defect, or limb defects, compared to women with normal pre-pregnancy weight.
- ▶ **3,000 or 18%** of them are born to women over 18 years of age without a high school education. Lack of education is associated with an increased risk for low-birth weight babies.
- ▶ **3,000 or 18%** of births are to mothers who report smoking during their pregnancy. Cigarette smoking is a risk factor for oral facial clefts, preterm birth, and low birth weight.
- ▶ **2,800 or 17%** are born to a Black mother. Infants born to black women have higher rates of infant mortality, low birth weight, and specific congenital heart defects, such as tetralogy of Fallot.
- ▶ **2,200 or 13%** are born to a mother of Hispanic ethnicity. Hispanic ethnicity is a risk factor for neural tube defects such as spina bifida.
- ▶ **2,300 or 14%** are born to teenage mothers between the ages of 15 and 19. Among women of young maternal age there is a 10 times increased risk for an abdominal wall defect, called gastroschisis.
- ▶ **1,800 or 11%** are born to women age 35 or older. Women over the age of 35 have a higher risk of chromosomal birth defects, such as Down syndrome, and may be more likely to have pregnancy complications.
- ▶ **1,800 or 11%** are born pre-term or less than 37 weeks gestation. These babies are 3 times more likely to die in their first year of life, and are at an increased risk for breathing and feeding problems, as well as long lasting disabilities.
- ▶ **1,400 or 9%** weigh less than 2500 grams or 5½ lbs. Low birth weight babies are at increased risk for serious health problems, including respiratory and intestinal disorders, and bleeding in the brain.
- ▶ **700 or 4%** of births are to mothers with gestational or pre-gestational diabetes. Research shows maternal diabetes as a risk factor for congenital heart and neural tube defects.²

The causes of 65% of birth defects are unknown and many occur early in pregnancy before a woman knows she is pregnant. Women can take action to help prevent birth defects by planning their pregnancy and seeing their health care provider prior to becoming pregnant to discuss family history, use of medications, or chronic health conditions such as obesity, diabetes or epilepsy. Fetal Alcohol Syndrome is 100% preventable if a woman does not drink alcohol while she is pregnant. Women should take a multi-vitamin with 400 mcg of folic acid before and during pregnancy to prevent serious birth defects of the brain and spine called neural tube defects. It is also important that women who are pregnant or planning to become pregnant eat a well-balanced diet, exercise moderately, avoid tobacco, illicit drugs, and chemicals that may cause harm.

Data Sources: 1. Florida CHARTS Mar. 04–Dec. 07. 2. The Florida Birth Defect Registry pooled CY Mar. 2004–Dec. 2007.

Websites: www.floridaCHARTS.com & www.fbdr.org.