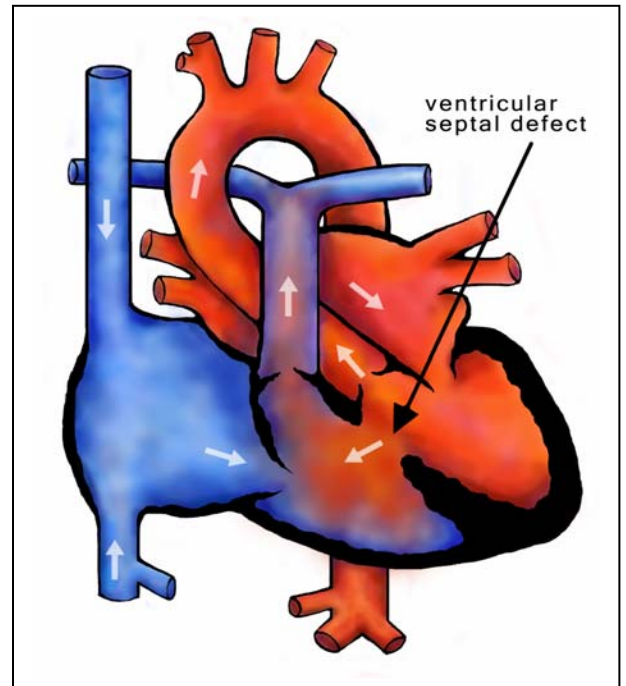


This fact sheet has been provided by the Texas Birth Defects Monitoring Division. Feel free to use it as a template and insert in your state-specific information; for your convenience, we have included all available state data for this defect, which was published in Birth Defects Research, Part A (Reference: NBDPN. 2003. Birth Defects Surveillance Data from Selected States, 1996-2000. Birth Defects Research Part A 67 (9): 729-818). We ask that you acknowledge the Texas Birth Defects Monitoring Division.

Ventricular Septal Defect

What is VSD?

Heart defects are the most common type of birth defects found in the United States. Nearly 1% of all babies born have a congenital heart defect. Ventricular Septal Defect (VSD) accounts for 20% of all heart defects. VSD is defined as a hole or holes in the muscular wall that separates the lower right and lower left chambers of the heart. Although most VSD-affected children go on to lead normal lives, there can be complications such as congestive heart failure, bacterial infections of the heart, and failure to thrive in infancy. This defect is seen in 39 per 10,000 Texas births.



Are VSDs preventable?

There is no known cause of congenital heart defects. However, they can be associated with diseases such as Rubella (German Measles). Therefore, women who plan to become pregnant should make sure they are vaccinated against Rubella at least 3 months before becoming pregnant. Also, maternal alcohol consumption during pregnancy and maternal use of anti-seizure medications has been associated with VSD.

Who is at risk?

Family history doesn't seem to predict whether or not a baby will have a VSD; and people with a heart defect themselves are not more likely to have a baby with the same defect.

Very often VSDs are found in babies who were born prematurely. This is probably because their heart has not had an adequate amount of time to develop. In the state of Texas, the rate of babies born with VSD greatly increases with certain factors. Mothers who were Hispanic had babies with VSD at a higher rate than mothers who were white or African American. Also, mothers of 35 years or older have a higher percentage of babies with VSD than younger mothers.

VSDs by Maternal Age

Links with Down Syndrome (Trisomy 21)

About 50% of babies born with Down Syndrome also have associated heart defects including, but not limited to, atrial septal defect, patent ductus arteriosus, and VSD. Because of the likelihood of having a baby with Down Syndrome increases with the mother's age, these mothers are also more likely to have a baby with Ventricular Septal Defect.

How Common is VSD?

In Texas, babies are born with Ventricular Septal Defect at an average rate of 39 per 10,000 live births. Certain factors, such as maternal age and ethnicity are associated with higher risk for VSD:

- Hispanic women in Texas have children with VSD at a rate of 45 per 10,000.
- Maternal age of 35 to 39 brings the rate up to 50 per 10,000; and maternal age of 40 or older produces a rate of 78 babies per 10,000 born with Ventricular Septal Defect.

In 1999, three counties (Cameron, Bexar, and Tarrant) in Texas had high rates of babies born with VSD.

Comparison of Heart Defects in Texas (1998-1999)

Rates of VSD

State	Race/Ethnicity						Total
	Non-Hispanic White	Non-Hispanic Black or African	Hispanic	Asian or Pacific Islander	American Indian or Alaskan Native	Other/Unknown	
Alabama	23	17	1	0	0	0	41
Alaska							315
Arizona	141	10	104	3	31	1	290
Arkansas	548	153	44	5	0	10	760
California	142	23	248	<5	16	18	449
Colorado	805	55	310	32	12	11	1,225
Delaware	130	50	18	5	1	9	213
Florida	1,916	597	805	44	10	2	3,374
Georgia	409	284	116	36	1	6	852
Hawaii	78	5	11	269	5	5	373
Illinois	1,335	338	353	54	7	48	2,135
Iowa	686	27	33	6	1	53	806
Kentucky	769	91	18	4	1	0	883
Massachusetts	164	20	29	2	1	8	224
Michigan	1,985	327	87	59	16	90	2,564
Mississippi	54	62	0	0	2	0	118
Missouri	1,349	253	39	16	4	5	1,666
Montana	5	0	0	0	0	36	41
New Jersey	1,691	455	512	154	2	25	2,839
New Mexico	184	7	267		99	7	564

New York	2,588	759	840	267	11	24	4,489
North Carolina	1,381	539	222	35	41	1	2,219
North Dakota							193
Oklahoma	780	76	85	19	99	7	1,066
Rhode Island	201	19	26	10	1	18	275
Tennessee	182	43	7	4	0	19	255
Texas	1,817	435	3,014	99	7	7	5,379
Utah	251	0	29	5	2	4	291
Virginia	786	211	94	37	2	9	1,139
West Virginia	203	9	0	1	0	7	220
Wisconsin	588						713

Symptoms

Most often, a ventricular septal defect will be discovered during a physical examination when the doctor listens to the heartbeat and can hear a heart murmur. If the hole in the septum is very small, there will probably be few or no symptoms. However, if the defect is large, symptoms include: heavy breathing, rapid heart rate, difficulty feeding (in newborns), and tires easily.

Treatments

The main treatment for babies with VSD is observation. If the hole in the septum is fairly small, it will usually close on its own, or rarely cause long-term difficulty. Babies who are showing complications from VSD are typically given medications such as diuretics to get rid of the extra fluid in their lungs, medication that will lower blood pressure, and digoxin, which improves the strength of the heart. Some babies who are experiencing failure to thrive will be put on high calorie formula to help them grow. If the effects of VSD cannot be controlled by medication, surgery may be performed to close the hole in the ventricular septum.

For sources or more information contact [insert in your contact information].