

**Massachusetts**  
**Birth Defects Counts and Prevalence 2014 - 2018 (Prevalence per 10,000 Live Births)**

Defect	Maternal Race/Ethnicity					Total*	Notes
	White, Non-Hispanic	Black, Non-Hispanic	Hispanic	Asian or Pacific Islander, Non-Hispanic	American Alaska Native, Non-Hispanic		
Anencephalus	49 <i>2.3</i>	15 <i>4.2</i>	21 <i>3.2</i>	11 <i>3.4</i>	0 <i>0.0</i>	107 <i>3.0</i>	
Anophthalmia/microphthalmia	19 <i>0.9</i>	4 <i>1.1</i>	10 <i>1.5</i>	2 <i>0.6</i>	0 <i>0.0</i>	39 <i>1.1</i>	
Anotia/microtia	46 <i>2.2</i>	7 <i>2.0</i>	28 <i>4.2</i>	9 <i>2.8</i>	0 <i>0.0</i>	93 <i>2.6</i>	
Aortic valve stenosis	44 <i>2.1</i>	2 <i>0.6</i>	6 <i>0.9</i>	1 <i>0.3</i>	0 <i>0.0</i>	55 <i>1.6</i>	
Atrial septal defect	545 <i>25.9</i>	108 <i>30.4</i>	215 <i>32.6</i>	71 <i>22.0</i>	5 <i>41.5</i>	973 <i>27.4</i>	
Atrioventricular septal defect (Endocardial cushion defect)	124 <i>5.9</i>	49 <i>13.8</i>	74 <i>11.2</i>	15 <i>4.6</i>	1 <i>8.3</i>	279 <i>7.9</i>	
Biliary atresia	11 <i>0.5</i>	2 <i>0.6</i>	4 <i>0.6</i>	3 <i>0.9</i>	0 <i>0.0</i>	20 <i>0.6</i>	
Bladder exstrophy	6 <i>0.3</i>	1 <i>0.3</i>	2 <i>0.3</i>	0 <i>0.0</i>	0 <i>0.0</i>	9 <i>0.3</i>	
Choanal atresia	12 <i>0.6</i>	2 <i>0.6</i>	2 <i>0.3</i>	3 <i>0.9</i>	1 <i>8.3</i>	21 <i>0.6</i>	
Cleft lip alone	68 <i>3.2</i>	9 <i>2.5</i>	14 <i>2.1</i>	17 <i>5.3</i>	1 <i>8.3</i>	113 <i>3.2</i>	
Cleft lip with cleft palate	92 <i>4.4</i>	12 <i>3.4</i>	36 <i>5.5</i>	16 <i>5.0</i>	1 <i>8.3</i>	159 <i>4.5</i>	
Cleft palate alone	132 <i>6.3</i>	14 <i>3.9</i>	37 <i>5.6</i>	20 <i>6.2</i>	3 <i>24.9</i>	218 <i>6.1</i>	
Cloacal exstrophy	7 <i>0.3</i>	0 <i>0.0</i>	4 <i>0.6</i>	1 <i>0.3</i>	0 <i>0.0</i>	12 <i>0.3</i>	
Clubfoot	377 <i>17.9</i>	48 <i>13.5</i>	118 <i>17.9</i>	25 <i>7.7</i>	3 <i>24.9</i>	590 <i>16.6</i>	1
Coarctation of the aorta	102 <i>4.8</i>	9 <i>2.5</i>	33 <i>5.0</i>	13 <i>4.0</i>	1 <i>8.3</i>	161 <i>4.5</i>	
Common truncus (truncus arteriosus)	15 <i>0.7</i>	4 <i>1.1</i>	2 <i>0.3</i>	2 <i>0.6</i>	0 <i>0.0</i>	24 <i>0.7</i>	
Congenital cataract	69 <i>3.3</i>	11 <i>3.1</i>	24 <i>3.6</i>	6 <i>1.9</i>	0 <i>0.0</i>	112 <i>3.2</i>	
Congenital posterior urethral valves	23 <i>2.1</i>	11 <i>6.1</i>	12 <i>3.6</i>	2 <i>1.2</i>	0 <i>0.0</i>	49 <i>2.7</i>	2
Craniosynostosis	146 <i>6.9</i>	6 <i>1.7</i>	29 <i>4.4</i>	9 <i>2.8</i>	1 <i>8.3</i>	198 <i>5.6</i>	
Deletion 22q11.2	34 <i>1.6</i>	6 <i>1.7</i>	16 <i>2.4</i>	4 <i>1.2</i>	0 <i>0.0</i>	60 <i>1.7</i>	
Diaphragmatic hernia	71 <i>3.4</i>	11 <i>3.1</i>	19 <i>2.9</i>	9 <i>2.8</i>	1 <i>8.3</i>	114 <i>3.2</i>	
Double outlet right ventricle	41 <i>1.9</i>	8 <i>2.3</i>	13 <i>2.0</i>	5 <i>1.5</i>	0 <i>0.0</i>	69 <i>1.9</i>	
Ebstein anomaly	19 <i>0.9</i>	0 <i>0.0</i>	3 <i>0.5</i>	0 <i>0.0</i>	0 <i>0.0</i>	24 <i>0.7</i>	
Encephalocele	16 <i>0.8</i>	8 <i>2.3</i>	7 <i>1.1</i>	2 <i>0.6</i>	0 <i>0.0</i>	34 <i>1.0</i>	
Esophageal atresia/tracheoesophageal fistula	68 <i>3.2</i>	3 <i>0.8</i>	13 <i>2.0</i>	1 <i>0.3</i>	1 <i>8.3</i>	86 <i>2.4</i>	
Gastroschisis	58 <i>2.8</i>	8 <i>2.3</i>	32 <i>4.9</i>	7 <i>2.2</i>	2 <i>16.6</i>	110 <i>3.1</i>	
Holoprosencephaly	38 <i>1.8</i>	6 <i>1.7</i>	19 <i>2.9</i>	8 <i>2.5</i>	0 <i>0.0</i>	76 <i>2.1</i>	
Hypoplastic left heart syndrome	60 <i>2.8</i>	14 <i>3.9</i>	20 <i>3.0</i>	3 <i>0.9</i>	0 <i>0.0</i>	103 <i>2.9</i>	
Hypospadias	890 <i>82.1</i>	102 <i>56.7</i>	195 <i>58.3</i>	71 <i>43.0</i>	5 <i>80.0</i>	1,294 <i>71.3</i>	2
Interrupted aortic arch	6 <i>0.3</i>	2 <i>0.6</i>	2 <i>0.3</i>	0 <i>0.0</i>	0 <i>0.0</i>	10 <i>0.3</i>	

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**Birth Defects Counts and Prevalence 2014 - 2018 (Prevalence per 10,000 Live Births)**

Defect	Maternal Race/Ethnicity					Total*	Notes
	White, Non-Hispanic	Black, Non-Hispanic	Hispanic	Asian or Pacific Islander, Non-Hispanic	American Indian or Alaska Native, Non-Hispanic		
Limb deficiencies (reduction defects)	105 <i>5.0</i>	16 <i>4.5</i>	35 <i>5.3</i>	7 <i>2.2</i>	1 <i>8.3</i>	167 <i>4.7</i>	
Omphalocele	101 <i>4.8</i>	8 <i>2.3</i>	27 <i>4.1</i>	21 <i>6.5</i>	0 <i>0.0</i>	168 <i>4.7</i>	
Pulmonary valve atresia and stenosis	197 <i>9.3</i>	53 <i>14.9</i>	63 <i>9.6</i>	21 <i>6.5</i>	1 <i>8.3</i>	345 <i>9.7</i>	3
Pulmonary valve atresia	30 <i>1.4</i>	5 <i>1.4</i>	5 <i>0.8</i>	5 <i>1.5</i>	0 <i>0.0</i>	46 <i>1.3</i>	3
Rectal and large intestinal atresia/stenosis	97 <i>4.6</i>	7 <i>2.0</i>	24 <i>3.6</i>	8 <i>2.5</i>	1 <i>8.3</i>	142 <i>4.0</i>	
Renal agenesis/hypoplasia	195 <i>9.3</i>	31 <i>8.7</i>	51 <i>7.7</i>	17 <i>5.3</i>	2 <i>16.6</i>	309 <i>8.7</i>	
Single ventricle	9 <i>0.4</i>	3 <i>0.8</i>	6 <i>0.9</i>	2 <i>0.6</i>	0 <i>0.0</i>	23 <i>0.6</i>	
Small intestinal atresia/stenosis	49 <i>2.3</i>	9 <i>2.5</i>	18 <i>2.7</i>	11 <i>3.4</i>	1 <i>8.3</i>	92 <i>2.6</i>	
Spina bifida without anencephalus	91 <i>4.3</i>	10 <i>2.8</i>	44 <i>6.7</i>	7 <i>2.2</i>	0 <i>0.0</i>	165 <i>4.7</i>	
Tetralogy of Fallot	104 <i>4.9</i>	22 <i>6.2</i>	37 <i>5.6</i>	18 <i>5.6</i>	0 <i>0.0</i>	196 <i>5.5</i>	
Total anomalous pulmonary venous connection	11 <i>0.5</i>	2 <i>0.6</i>	5 <i>0.8</i>	9 <i>2.8</i>	0 <i>0.0</i>	28 <i>0.8</i>	
Transposition of the great arteries (TGA)	63 <i>3.0</i>	11 <i>3.1</i>	15 <i>2.3</i>	9 <i>2.8</i>	0 <i>0.0</i>	102 <i>2.9</i>	
Dextro-transposition of great arteries (d-TGA)	54 <i>2.6</i>	10 <i>2.8</i>	9 <i>1.4</i>	8 <i>2.5</i>	0 <i>0.0</i>	84 <i>2.4</i>	
Tricuspid valve atresia and stenosis	28 <i>1.3</i>	4 <i>1.1</i>	3 <i>0.5</i>	0 <i>0.0</i>	0 <i>0.0</i>	35 <i>1.0</i>	
Tricuspid valve atresia	19 <i>0.9</i>	4 <i>1.1</i>	2 <i>0.3</i>	0 <i>0.0</i>	0 <i>0.0</i>	25 <i>0.7</i>	
Trisomy 13	84 <i>4.0</i>	11 <i>3.1</i>	18 <i>2.7</i>	12 <i>3.7</i>	0 <i>0.0</i>	145 <i>4.1</i>	
Trisomy 18	185 <i>8.8</i>	31 <i>8.7</i>	47 <i>7.1</i>	31 <i>9.6</i>	1 <i>8.3</i>	325 <i>9.2</i>	
Trisomy 21 (Down syndrome)	628 <i>29.8</i>	99 <i>27.9</i>	152 <i>23.0</i>	67 <i>20.7</i>	8 <i>66.4</i>	1,031 <i>29.1</i>	
Turner syndrome	156 <i>15.2</i>	24 <i>13.7</i>	33 <i>10.2</i>	25 <i>15.9</i>	1 <i>17.2</i>	254 <i>14.7</i>	4
Ventricular septal defect	607 <i>28.8</i>	76 <i>21.4</i>	220 <i>33.4</i>	82 <i>25.4</i>	4 <i>33.2</i>	1,015 <i>28.6</i>	
<b>Total live births</b>	<b>210,779</b>	<b>35,508</b>	<b>65,961</b>	<b>32,295</b>	<b>1,205</b>	<b>354,475</b>	<b>5</b>
<b>Male live births</b>	<b>108,397</b>	<b>17,987</b>	<b>33,453</b>	<b>16,527</b>	<b>625</b>	<b>181,425</b>	
<b>Female live births</b>	<b>102,379</b>	<b>17,521</b>	<b>32,508</b>	<b>15,768</b>	<b>580</b>	<b>173,047</b>	

**Massachusetts**  
**Birth Defects Counts and Prevalence 2014 - 2018 (Prevalence per 10,000 Live Births)**

Defect	Maternal Age (Years)		Total*	Notes
	Less than 35	35+		
Gastroschisis	103 <i>3.9</i>	7 <i>0.8</i>	110 <i>3.1</i>	
Trisomy 13	60 <i>2.2</i>	85 <i>9.7</i>	145 <i>4.1</i>	
Trisomy 18	113 <i>4.2</i>	212 <i>24.2</i>	325 <i>9.2</i>	
Trisomy 21 (Down syndrome)	353 <i>13.2</i>	678 <i>77.5</i>	1,031 <i>29.1</i>	
<b>Total live births</b>	<b>266,975</b>	<b>87,490</b>	<b>354,475</b>	<b>5</b>

**Notes**

1. Data for this condition is limited to those who require casting or other treatment if the case is live birth.
2. Data for this condition include male and unknown gender cases only. Prevalence is calculated per 10,000 male live births.
3. Data for this condition include cases of pulmonary valve atresia with a ventricular septal defect that were reviewed and determined not to be a variant of tetralogy of Fallot.
4. Data for this condition include female and unknown gender cases only. Prevalence is calculated per 10,000 female live births.
5. Data for total live births include unknown gender.

**General comments**

\*Data for totals include unknown and/or other.

-Data for conditions exclude possible/probable cases.