

Appendix Table 1: Birth and obstetric trauma components and ICD-9-CM codes.

Birth trauma	ICD-9-CM
Brain	
Subdural and cerebral hemorrhage, including:	767.0
Subdural and cerebral hemorrhage, whether described as due to birth trauma or to intrapartum anoxia or hypoxia, subdural hematoma (localized), tentorial tear	
Epicranial subaponeurotic hemorrhage (massive), subgaleal hemorrhage	767.11
Fractures	
Fracture of clavicle	767.2
Other injuries to skeleton (fracture of long bones, skull)	767.3
Nerve injury	
Injury to spine and spinal cord, including:	767.4
Dislocation of spine or spinal cord due to birth trauma	
Fracture of spine or spinal cord due to birth trauma	
Laceration of spine or spinal cord due to birth trauma	
Rupture of spine or spinal cord due to birth trauma	
Facial nerve injury	767.5
Injury to brachial plexus (Erb's, Klumpke's paralysis)	767.6
Other cranial and peripheral nerve injuries (phrenic nerve paralysis)	767.7
Other	
Other specified birth trauma*	767.8
Maternal obstetric trauma	ICD-9-CM
Severe perineal lacerations	
3 rd degree perineal tear	664.2
4 th degree perineal tear	664.3
Anal sphincter tear (without 3 rd /4 th degree tear)	664.6
Obstetric laceration of cervix	665.3
High vaginal lacerations	665.4

* Includes eye damage, traumatic glaucoma, hematoma/rupture of liver and spleen, injury to adrenal gland, scalpel wound (laceration), hematoma of vulva and testes, hematoma of sternomastoid.

Appendix Table 2: Unadjusted and adjusted odds ratios expressing the change per year in the risk of obstetric trauma by mode of delivery, singleton births, Washington State, USA, 2004 - 2013.

Obstetric trauma	Mode of Delivery					
	Spontaneous vaginal delivery		Forceps delivery		Vacuum delivery	
	OR (95% CI)	AOR* (95% CI)	OR (95% CI)	AOR* (95% CI)	OR (95% CI)	AOR* (95% CI)
Severe perineal lacerations	0.96 (0.95-0.96)	0.95 (0.94-0.95)	0.97 (0.95-0.99)	0.98 (0.96-1.00)	0.98 (0.97-0.99)	0.97 (0.96-0.98)
Cervical/high vaginal tears	1.00 (0.99-1.01)	1.00 (0.99-1.01)	1.02 (0.98-1.06)	1.01 (0.97-1.05)	0.99 (0.97-1.02)	0.99 (0.97-1.01)
Any severe lacerations	0.90 (0.90-0.91)	0.90 (0.89-0.90)	0.97 (0.96-0.99)	0.98 (0.96-1.01)	0.96 (0.95-0.97)	0.95 (0.95-0.96)

OR denotes Odds ratio, AOR denotes adjusted odds ratio, CI denotes confidence interval; breech delivery was excluded.

* Adjusted for parity, body-mass-index, maternal age, maternal education, race, marital status, assisted conception, hypertension, diabetes mellitus, gestational diabetes, smoking during pregnancy, birth weight, preterm birth, PROM (>12 h), precipitous labor, prolonged labor, cephalo-pelvic disproportion, obstructed labor, fetal sex.