

Appendix A: Complete list of oculoplastics-related International Classification of Disease-9th revision (ICD-9) codes identified within the Nationwide Emergency Department Sample (NEDS) database with anatomic location, frequencies, urgency and trauma designations, 2006-2015

Type?	ICD9	Diagnosis Name	Trauma? 0 = no, 1 = yes, 2 = unable to assess	Urgent? 0 = no, 1 = yes, 2 = unable to assess	Percentage	Frequency
Eyelid/Adnexa	172.1	Malignant melanoma of skin of eyelid, including canthus	0	0	*	*
Eyelid/Adnexa	173.10	Unspecified malignant neoplasm of eyelid, including canthus	0	0	*	*
Eyelid/Adnexa	372.20	Blepharoconjunctivitis, unspecified	0	0	0.26	2437
Eyelid/Adnexa	372.21	Angular blepharoconjunctivitis	0	0	*	*
Eyelid/Adnexa	372.22	Contact blepharoconjunctivitis	0	0	0.01	67
Eyelid/Adnexa	373.0	Blepharitis, unspecified	0	0	4.64	42739
Eyelid/Adnexa	373.1	Ulcerative blepharitis	0	0	0.02	170
Eyelid/Adnexa	373.11	Hordeolum externum	0	0	18.51	170385
Eyelid/Adnexa	373.12	Hordeolum internum	0	0	1.3	11959
Eyelid/Adnexa	373.13	Abscess of eyelid/adnexa	0	1	4.66	42933
Eyelid/Adnexa	373.2	Chalazion: Meibomian (gland) cyst. Excludes: infected meibomian gland	0	0	2.84	26167
Eyelid/Adnexa	373.2	Squamous blepharitis	0	0	0	11
Eyelid/Adnexa	373.31	Eczematous dermatitis of eyelid/adnexa	0	0	0.15	1412
Eyelid/Adnexa	373.32	Contact and allergic dermatitis of eyelid/adnexa	0	0	0.28	2607
Eyelid/Adnexa	373.33	Xeroderma of eyelid/adnexa	0	0	0	10
Eyelid/Adnexa	373.34	Discoid lupus erythematosus of eyelid	0	0	*	*
Eyelid/Adnexa	373.4	Infective dermatitis of eyelid/adnexa of	0	0	*	*

		types resulting in deformity; Code first underlying disease, as: leprosy 0(030.0.030.9), lupus vulgaris (tuberculous), yaws				
Eyelid/Adnexa	373.5	Other infective dermatitis of eyelid/adnexa: Code first underlying disease, as: actinomycosis (039.3), impetigo (684), mycotic dermatitis (110.0.111.9), vaccinia (051.0), postvaccination (999.0)	0	0	0	12
Eyelid/Adnexa	373.8	Other inflammations of eyelid/adnexas	0	0	0.16	1467
Eyelid/Adnexa	373.9	Unspecified inflammation of eyelid/adnexa	0	0	0.56	5156
Eyelid/Adnexa	374.0	Entropion, unspecified	0	0	0.03	278
Eyelid/Adnexa	374.10	Ectropion, unspecified	0	0	0.02	224
Eyelid/Adnexa	374.1	Senile entropion	0	0	*	*
Eyelid/Adnexa	374.11	Senile ectropion	0	0	*	*
Eyelid/Adnexa	374.12	Mechanical ectropion	0	0	*	*
Eyelid/Adnexa	374.13	Spastic ectropion	0	0	*	*
Eyelid/Adnexa	374.14	Cicatricial ectropion	0	0	0.01	75
Eyelid/Adnexa	374.20	Lagophthalmos, unspecified	0	0	0.01	101
Eyelid/Adnexa	374.21	Paralytic lagophthalmos	0	0	*	*
Eyelid/Adnexa	374.22	Mechanical lagophthalmos	0	0	*	*
Eyelid/Adnexa	374.23	Cicatricial lagophthalmos	0	0	*	*
Eyelid/Adnexa	374.30	Ptosis of eyelid/adnexa, unspecified	0	0	0.35	3228
Eyelid/Adnexa	374.3	Spastic entropion	0	0	*	*
Eyelid/Adnexa	374.31	Paralytic ptosis	0	0	0	28
Eyelid/Adnexa	374.32	Myogenic ptosis	0	0	0	20
Eyelid/Adnexa	374.33	Mechanical ptosis	0	0	*	*

Eyelid/Adnexa	374.34	Blepharochalasis; Pseudoptosis	0	0	0.01	56
Eyelid/Adnexa	374.4	Cicatricial entropion	0	0	*	*
Eyelid/Adnexa	374.41	Lid retraction or lag	0	0	0.01	58
Eyelid/Adnexa	374.43	Abnormal innervation syndrome of eyelid	0	0	0	33
Eyelid/Adnexa	374.44	Sensory disorders of eyelid	0	0	*	*
Eyelid/Adnexa	374.45	Other sensorimotor disorders of eyelid	0	0	0	33
Eyelid/Adnexa	374.46	Blepharophimosis; Ankyloblepharon	0	0	0.01	54
Eyelid/Adnexa	374.50	Degenerative disorder of eyelid, unspecified	0	0	0.07	635
Eyelid/Adnexa	374.5	Trichiasis of eyelid without entropion	0	0	0.05	453
Eyelid/Adnexa	374.51	Xanthelasma; Xanthoma (planum) (tuberosum) of eyelid/adnexa	0	0	*	*
Eyelid/Adnexa	374.52	Hyperpigmentation of eyelid/adnexa, Chloasma, Dyspigmentation	0	0	0	17
Eyelid/Adnexa	374.53	Hypopigmentation of eyelid/adnexa; Vitiligo of eyelid/adnexa	0	0	0	13
Eyelid/Adnexa	374.54	Hypertrichosis of eyelid	0	0	*	*
Eyelid/Adnexa	374.55	Hypotrichosis of eyelid/adnexa; Madarosis of eyelid/adnexa	0	0	0	15
Eyelid/Adnexa	374.56	Other degenerative disorders of skin affecting eyelid	0	2	*	*
Eyelid/Adnexa	374.81	Hemorrhage of eyelid/adnexa Excludes: black eye	1	1	0.03	284
Eyelid/Adnexa	374.82	Edema of eyelid	2	2	0.83	7651
Eyelid/Adnexa	374.83	Elephantiasis of eyelid/adnexa	0	0	*	*
Eyelid/Adnexa	374.84	Cysts of eyelid/adnexas; Sebaceous cyst of eyelid/adnexa	0	0	0.22	2021
Eyelid/Adnexa	374.85	Vascular anomalies of eyelid/adnexa	0	0	0	19

Eyelid/Adnexa	374.86	Retained foreign body of eyelid/adnexa	1	1	0.04	339
Eyelid/Adnexa	374.87	Dermatochalasis	0	0	0.01	108
Eyelid/Adnexa	374.89	Other disorders of eyelid	0	0	0.25	2293
Eyelid/Adnexa	374.9	Unspecified disorder of eyelid/adnexa	0	0	0.07	685
Eyelid/Adnexa	870.0	Laceration of skin of eyelid/adnexa and periocular area	1	1	9.91	91237
Eyelid/Adnexa	870.1	Laceration of eyelid/adnexa, full thickness, not involving lacrimal passages	1	1	0.68	6271
Eyelid/Adnexa	870.2	Laceration of eyelid/adnexa involving lacrimal passages	1	1	0.27	2507
Eyelid/Adnexa	870.8	Other specified open wounds of ocular adnexa	1	1	6.54	60224
Eyelid/Adnexa	870.9	Unspecified open wound of ocular adnexa	1	1	0.33	3019
Eyelid/Adnexa	918.0	Eyelid/adnexas and periocular area Abrasion Insect bite Superficial foreign body (splinter)	1	1	3.85	35401
Eyelid/Adnexa	918.9	Other and unspecified superficial injuries of eye	1	2	2.88	26474
Eyelid/Adnexa	921.0	Black eye, NOS	1	1	0.87	7984
Eyelid/Adnexa	921.1	Contusion of eyelid/adnexas and periocular area	1	1	2.88	26524
Eyelid/Adnexa	930.8	Foreign body in other and combined sites on external eye	1	1	1.81	16694
Eyelid/Adnexa	930.9	Foreign body in unspecified site on external eye	1	1	12.53	115355
Eyelid/Adnexa	940.0	Chemical burn of eyelid/adnexas and periocular area	1	1	0.28	2583

Eyelid/Adnexa	940.1	Other burns of eyelid/adnexas and periocular area	1	1	0.44	4026
Eyelid/Adnexa	940.9	Unspecified burn of eye and adnexa	1	1	1	9196
Eyelid/Adnexa	941.0	Burn of unspecified degree of face and head, unspecified site	1	1	0.8	7397
Eyelid/Adnexa	941.12	Erythema [first degree] of eye (with other parts face, head, and neck)	1	1	0.11	1023
Eyelid/Adnexa	941.2	Burn of unspecified degree of eye (with other parts of face, head, and neck)	1	1	0.07	652
Eyelid/Adnexa	941.22	Blisters, epidermal loss [second degree] of eye (with other parts of face, head, and neck)	2	1	0.09	837
Eyelid/Adnexa	941.32	Full-thickness skin loss [third degree, not otherwise specified] of eye (with other parts of face, head, and neck)	1	1	0	33
Eyelid/Adnexa	941.42	Deep necrosis of underlying tissues [deep third degree] without mention of loss of a body part, of eye (with other parts of face, head, and neck)	2	1	*	*
Eyelid/Adnexa	941.52	Deep necrosis of underlying tissues [deep third degree] with loss of a body part, of eye (with other parts of face, head, and neck)	2	1	*	*
Lacrimal	190.2	Malignant neoplasm of lacrimal gland	0	0	0	10
Lacrimal	190.7	Malignant neoplasm of lacrimal duct	0	0	*	*
Lacrimal	375.0	Dacryoadenitis, unspecified	0	1	0.09	862
Lacrimal	375.1	Acute dacryoadenitis	0	1	0.02	209

Lacrimal	375.11	Dacryops	0	0	*	*
Lacrimal	375.12	Other lacrimal cysts and cystic degeneration	0	0	0.01	78
Lacrimal	375.13	Primary lacrimal atrophy	0	0	*	*
Lacrimal	375.14	Secondary lacrimal atrophy	0	0	*	*
Lacrimal	375.16	Dislocation of lacrimal gland	0	0	*	*
Lacrimal	375.2	Chronic dacryoadenitis	0	0	0	14
Lacrimal	375.21	Epiphora due to excess lacrimation	0	0	0	38
Lacrimal	375.22	Epiphora due to insufficient drainage	0	0	0	22
Lacrimal	375.30	Dacryocystitis, unspecified	0	0	0.73	6693
Lacrimal	375.3	Chronic enlargement of lacrimal gland	0	0	0.01	51
Lacrimal	375.31	Acute canaliculitis, lacrimal	0	1	0.03	255
Lacrimal	375.32	Acute dacryocystitis; Acute peridacryocystitis	0	1	0.16	1506
Lacrimal	375.33	Phlegmonous dacryocystitis	0	0	0	13
Lacrimal	375.41	Chronic canaliculitis	0	0	*	*
Lacrimal	375.42	Chronic dacryocystitis	0	0	0.01	92
Lacrimal	375.43	Lacrimal mucocele	0	0	0.01	83
Lacrimal	375.51	Eversion of lacrimal punctum	0	0	*	*
Lacrimal	375.52	Stenosis of lacrimal punctum	0	0	0.01	50
Lacrimal	375.53	Stenosis of lacrimal canaliculi	0	1	0.02	222
Lacrimal	375.54	Stenosis of lacrimal sac	0	0	0.01	122
Lacrimal	375.55	Obstruction of nasolacrimal duct, neonatal. Excludes: congenital anomaly of nasolacrimal duct	0	0	0.13	1163
Lacrimal	375.56	Stenosis of nasolacrimal duct, acquired	0	0	0.42	3829
Lacrimal	375.57	Dacryolith	0	0	0	33
Lacrimal	375.61	Lacrimal fistula	0	0	*	*

Lacrimal	375.69	Other changes of lacrimal passages	0	0	0.01	136
Lacrimal	375.81	Granuloma of lacrimal passages	0	0	*	*
Lacrimal	375.89	Other disorders of lacrimal system	0	0	0.04	334
Lacrimal	375.9	Unspecified disorder of lacrimal system	0	0	0.02	139
Lacrimal	930.2	Foreign body in lacrimal punctum	1	1	0.01	98
Orbit	190.1	Malignant neoplasm of orbit	0	0	0.01	101
Orbit	360.2	Panophthalmitis	0	1	0.01	68
Orbit	360.81	Luxation of globe	1	1	0.01	66
Orbit	367.52	Total or complete internal ophthalmoplegia	0	1	0	11
Orbit	376.0	Acute inflammation of orbit, unspecified	0	1	0.06	549
Orbit	376.1	Orbital cellulitis Abscess of orbit	0	1	4.07	37481
Orbit	376.10	Chronic inflammation of orbit, unspecified	0	0	0.02	187
Orbit	376.11	Orbital granuloma Pseudotumor (inflammatory) of orbit	0	1	0.07	634
Orbit	376.12	Orbital myositis	0	1	0.01	120
Orbit	376.2	Orbital periostitis	1	0	0.01	60
Orbit	376.21	Thyrotoxic exophthalmos	0	0	*	*
Orbit	376.22	Exophthalmic ophthalmoplegia	2	2	*	*
Orbit	376.30	Exophthalmos, unspecified	0	0	0.12	1062
Orbit	376.3	Orbital osteomyelitis	0	1	0	20
Orbit	376.31	Constant exophthalmos	2	0	*	*
Orbit	376.32	Orbital hemorrhage	1	1	0.06	595
Orbit	376.33	Orbital edema or congestion	0	1	0.49	4502
Orbit	376.34	Intermittent exophthalmos	0	0	*	*
Orbit	376.35	Pulsating exophthalmos	0	1	*	*
Orbit	376.36	Lateral displacement of globe	0	0	*	*
Orbit	376.4	Orbital tenonitis	0	0	*	*

Orbit	376.40	Deformity of orbit, unspecified	2	0	*	*
Orbit	376.41	Hypertelorism of orbit	0	0	*	*
Orbit	376.42	Exostosis of orbit	0	2	*	*
Orbit	376.44	Orbital deformities associated with craniofacial deformities	0	0	*	*
Orbit	376.45	Atrophy of orbit	0	0	*	*
Orbit	376.46	Enlargement of orbit	0	0	0	5
Orbit	376.47	Deformity of orbit due to trauma or surgery	0	0	0	15
Orbit	376.50	Enophthalmos, unspecified as to cause	0	0	0	33
Orbit	376.51	Enophthalmos due to atrophy of orbital tissue	0	0	0.01	134
Orbit	376.52	Enophthalmos due to trauma or surgery	0	0	0	12
Orbit	376.6	Retained (old) foreign body following penetrating wound of orbit; Retrobulbar foreign body	0	0	0.01	134
Orbit	376.81	Orbital cysts Encephalocele of orbit	0	0	0.02	185
Orbit	376.82	Myopathy of extraocular muscles	0	0	0	16
Orbit	376.89	Other orbital disorders	2	2	0.08	771
Orbit	376.9	Unspecified disorder of orbit	0	2	0.03	303
Orbit	377.42	Hemorrhage in optic nerve sheaths	1	1	0	19
Orbit	378.55	External ophthalmoplegia	0	1	0.09	816
Orbit	378.56	Total ophthalmoplegia	0	1	0	19
Orbit	378.72	Progressive external ophthalmoplegia	0	2	0	10
Orbit	743.6	Cryptophthalmos	0	0	*	*
Orbit	802.6	Orbital floor (blow.out), closed	1	1	6.32	58126
Orbit	802.7	Orbital floor (blow.out), open	1	1	0.11	1048
Orbit	870.3	Penetrating wound of orbit, without mention of foreign body	1	1	0.38	3485

Orbit	870.4	Penetrating wound of orbit with foreign body. Excludes: retained (old) foreign body in orbit	1	1	0.15	1384
Orbit	871.3	Avulsion of eye	1	1	0.05	459
Orbit	921.2	Contusion of orbital tissues	1	1	5.17	47589
Orbit	950.0	Optic nerve injury	1	1	0.05	479

* Frequency omitted to preserve patient identity