

**US DEPARTMENT OF
DEFENSE (DoD) COMBINED
ACTIVE DUTY
EYE INJURY SUMMARY
CALENDAR YEAR 2013**

Approved for public release, distribution unlimited

2014



CY 2013 DEPARTMENT OF DEFENSE (DoD) COMBINED ACTIVE DUTY (AD) EYE INJURY REPORT SUMMARY

INTRODUCTION: In 2010 the Armed Forces Health Surveillance Center (AFHSC) and Tri-Service Vision Conservation and Readiness Program (TSVCRP) of the US Army Public Health Command (USAPHC) began development of an Annual Active Duty Military Eye Injury Summary that would detail cause and type of injury along with demographics of eye injuries (Age, Gender, Rank, Occupational Group).

The first edition of the summary and annual summaries back through calendar year 2000, were produced in the spring of 2011. An analysis of years 2000-2010 was published in the May 2011 Medical Surveillance Monthly Report (MSMR). The AFHSC also developed a Case Definition for Eye Injuries that details the code set and methodology used to develop the summaries. Both the MSMR Article and Case Definition for Eye Injuries are available on the AFHSC website: <http://afhsc.army.mil/home>.

This summary contains detailed data, along with a set of summary tables detailing Ambulatory and Hospitalization rates (per 1000 person-years) for Injury Group, Cause of Injury and Occupational Group. Summary tables for Deployment-Associated Eye Injuries detailing frequency of Eye Injuries by Type of Injury and Occupational Group are also provided. Occupational Group data is for Enlisted members only. Deployment-Associated Eye Injuries are presented without regard to Ambulatory or Hospitalized status.

As one of the underlying goals of the summary is to make eye injury surveillance data accessible and useable, individual annual eye injury summaries for all years and all services (Combined DoD, Army, Navy, Air Force, Marine Corps and Coast Guard) are posted on the USAPHC public website.

For questions or additional information regarding the summaries please contact the TSVCRP:

By Email: usarmy.apg.medcom-phc.mbx.dcpm-tri-service-optometry@mail.mil

Telephone: 410-436-2714 FAX: 410-436-1325

Additional program information and educational materials can be found at: <http://dodvision.com/> and the USAPHC Public Website at: <http://phc.amedd.army.mil/Pages/default.aspx>

CONTENTS:

- 1) [Summary of Code Groupings](#)
- 2) [All diagrams by Injury Group](#)
- 3) [All diagrams by Cause of Injury](#)
- 4) [All diagrams by Occupational Group](#)
- 5) [Deployment-Associated Eye Injury diagrams \(by Injury and Occupational Group\)](#)
- 6) [2013 Combined DoD Eye Injury complete statistics](#)



CY 2013 DEPARTMENT OF DEFENSE (DoD) COMBINED ACTIVE DUTY (AD) EYE INJURY REPORT SUMMARY

INJURY CODE GROUP DETAILS: The following code groupings were used to develop the summary. Additional details may be found in the AFHSC Case Definition available at: <http://afhsc.army.mil/home>.

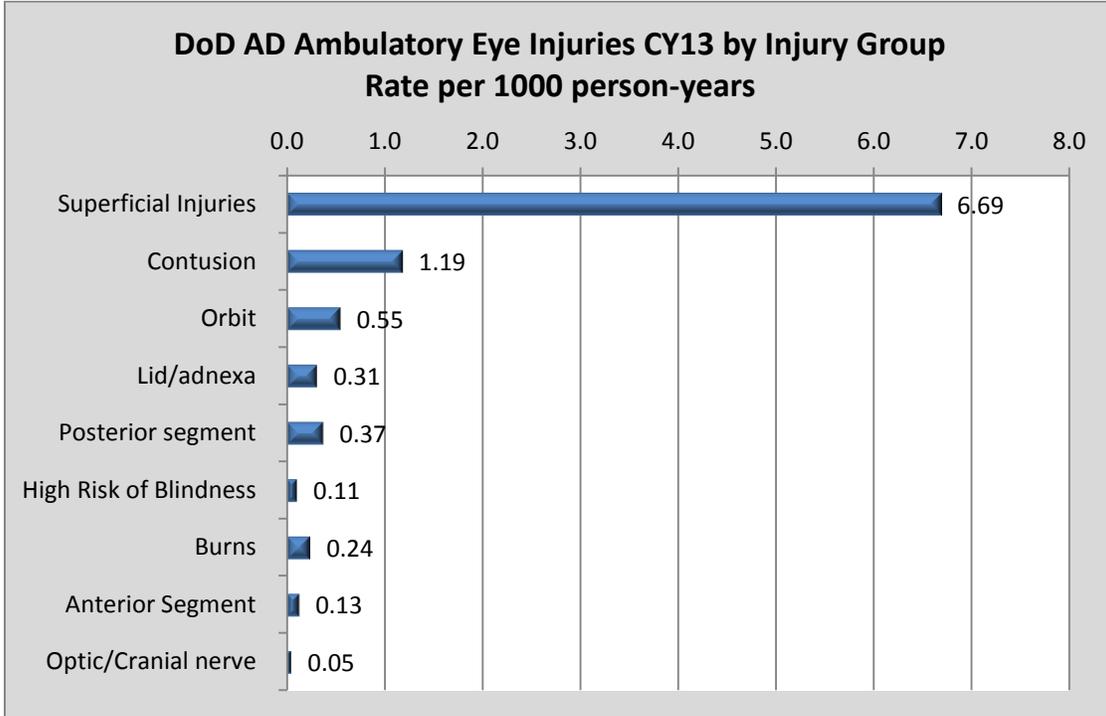
- 1) **Superficial:** all 918 series codes (superficial injury of eye and adnexa) and all 930 series codes (foreign body on external eye).
- 2) **Contusion:** all 921 series codes (contusion of eye and adnexa).
- 3) **Orbit:** All 802 series codes (fracture of face bones), 870.3 and 870.4 (penetrating wound of orbit without and with foreign body) and 376.32 (orbital hemorrhage).
- 4) **Lid/adnexa:** all 870 series codes (open wound of ocular adnexa) with the exception of 870.3 and 870.4 (see orbit above).
- 5) **Posterior segment:** 362.81 (retinal hemorrhage), all 361.0x series codes (retinal detachment with retinal defect), 363.61 (choroidal hemorrhage, unspecified), 363.63 (choroidal rupture), 379.23 (vitreous hemorrhage), 360.00 and 360.01 (purulent and acute endophthalmitis).
- 6) **High risk of blindness:** all 871 series codes (open wound of eyeball).
- 7) **Burns:** all 940 series codes (burn confined to eye and adnexa) as well as all 940.x2 codes (burns to eye with other parts of face, head and neck).
- 8) **Anterior segment:** 364.41 (hyphema), 366.21 and 366.22 (localized and total traumatic cataract), and 364.76 (iridodialysis).
- 9) **Optic/cranial nerve:** 950.0 (optic nerve injury), 950.1 (injury to optic chiasm), 950.9 (injury to optic nerve and pathways, unspecified), 951.0 (injury to oculomotor nerve), 951.1 (injury to trochlear nerve) and 951.3 (injury to abducens nerve).

DETAILS FOR TOTAL NUMBERS: Because patients may have been coded with more than one injury group or cause of injury, the sum of cases by injury group and the sum of cases by causes of injury will be greater than the total number of patients.

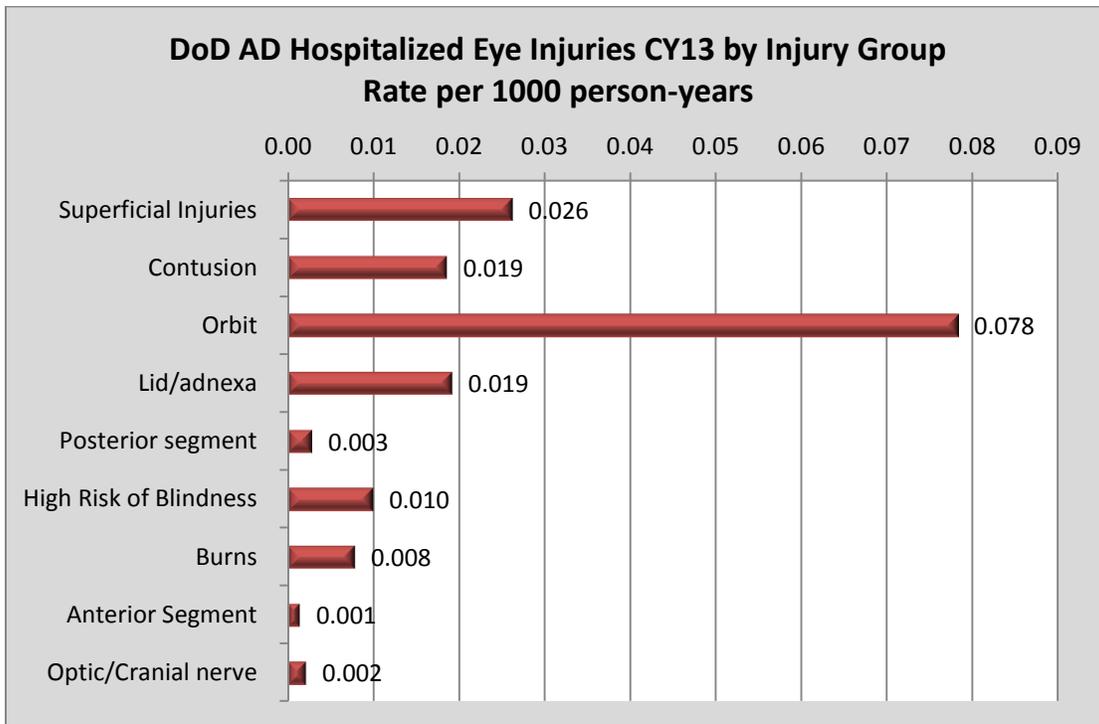
[Return to Introduction Page](#)



CY 2013 DEPARTMENT OF DEFENSE (DoD) COMBINED ACTIVE DUTY (AD) EYE INJURY REPORT SUMMARY



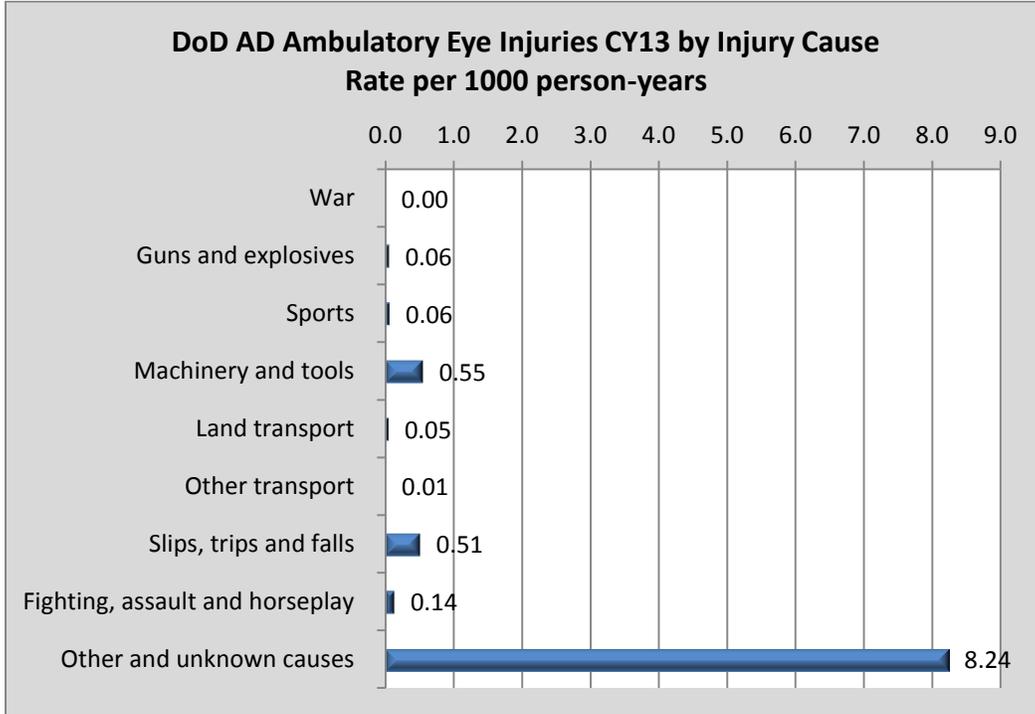
Please note the difference in scale between Ambulatory and Hospitalized graphs



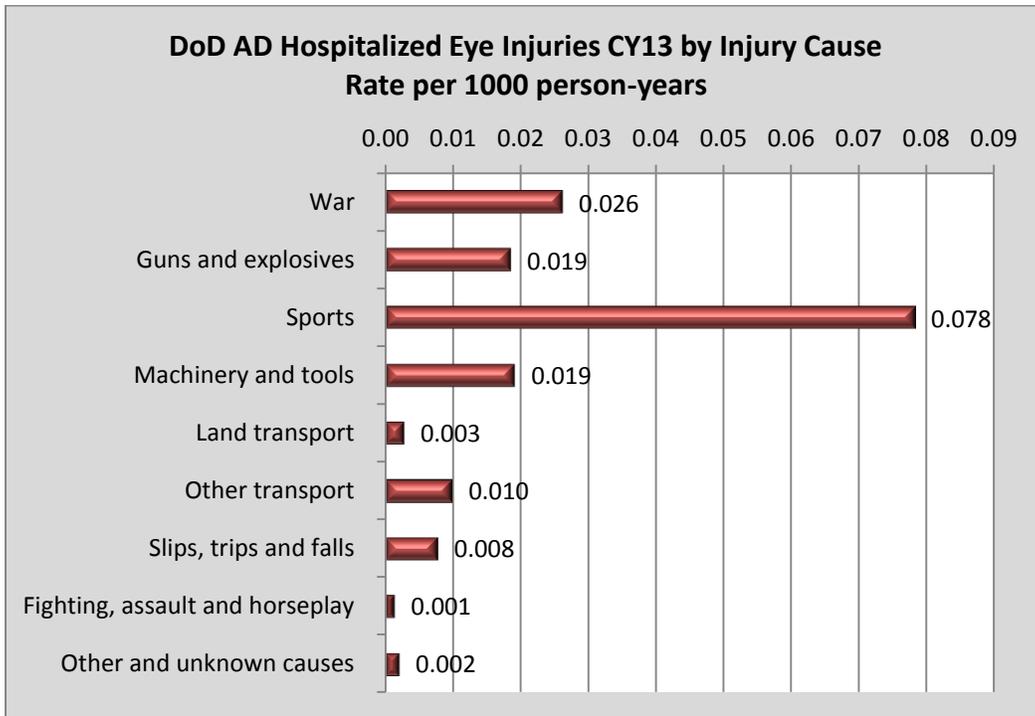
[Return to Introduction Page](#)



CY 2013 DEPARTMENT OF DEFENSE (DoD) COMBINED ACTIVE DUTY (AD) EYE INJURY REPORT SUMMARY



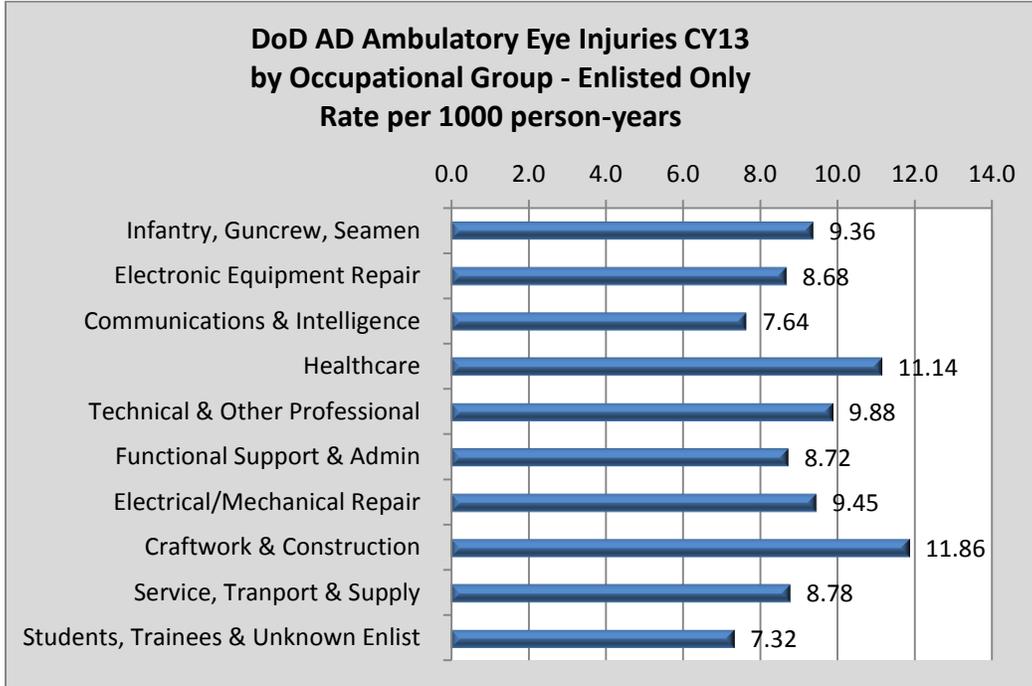
Please note the difference in scale between Ambulatory and Hospitalized graphs



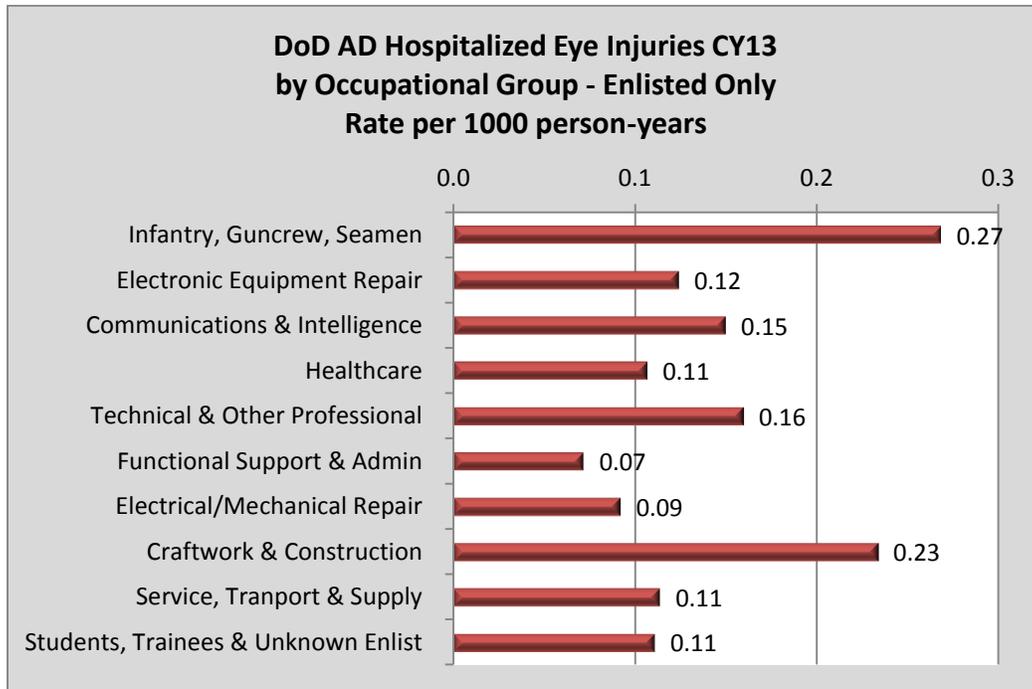
[Return to Introduction Page](#)



CY 2013 DEPARTMENT OF DEFENSE (DoD) COMBINED ACTIVE DUTY (AD) EYE INJURY REPORT SUMMARY



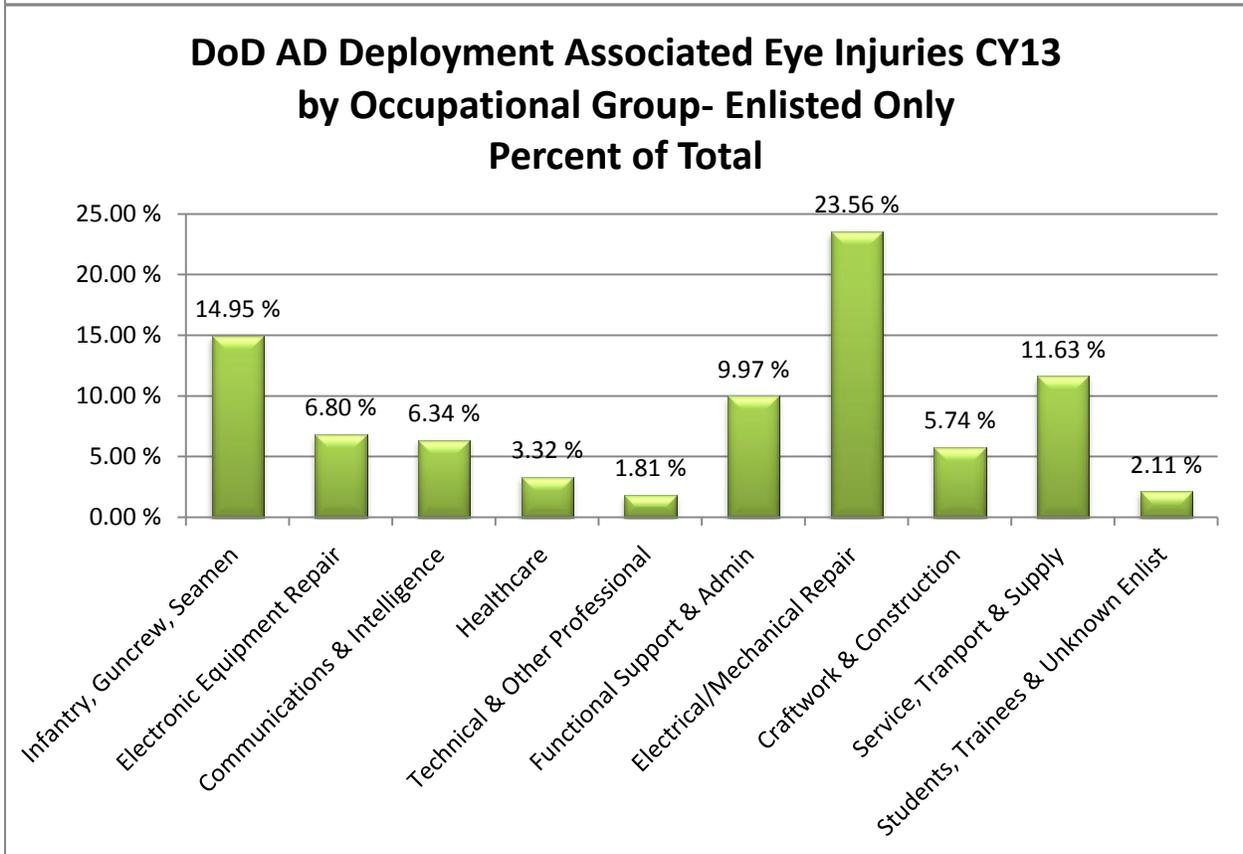
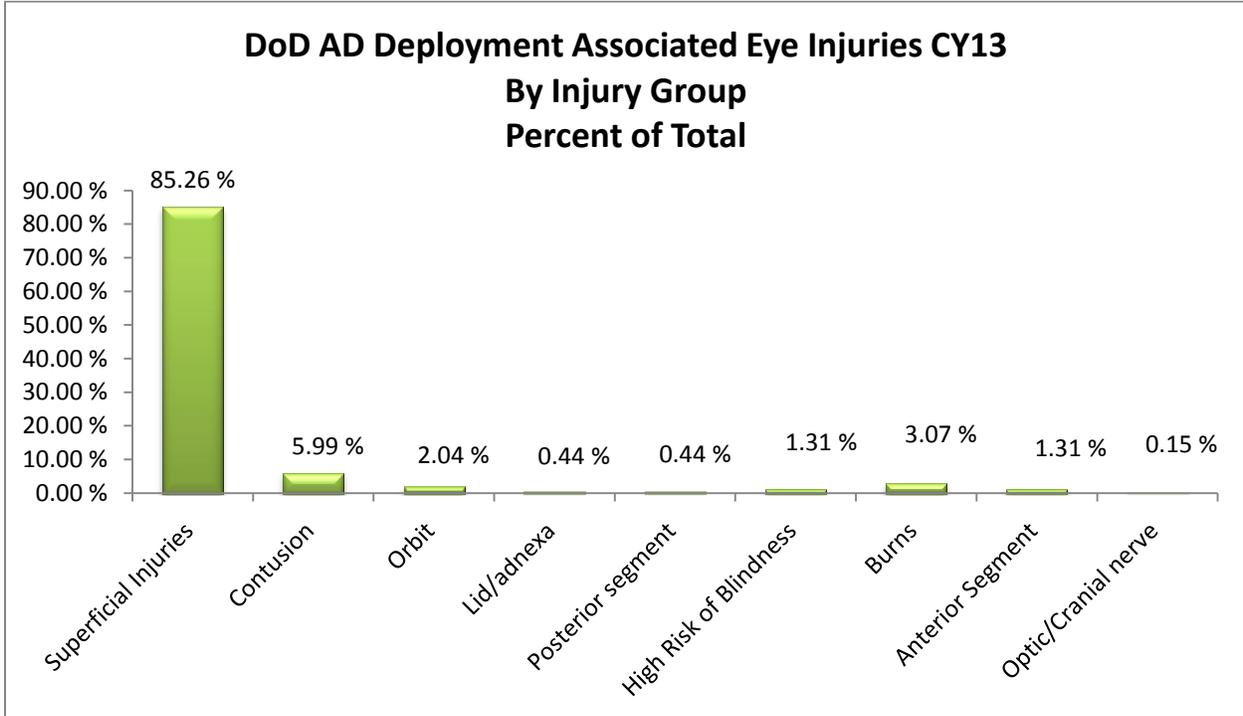
Please note the difference in scale between Ambulatory and Hospitalized graphs



[Return to Introduction Page](#)



CY 2013 DEPARTMENT OF DEFENSE (DoD) COMBINED ACTIVE DUTY (AD) EYE INJURY REPORT SUMMARY



[Return to Introduction Page](#)



CY 2013 DEPARTMENT OF DEFENSE (DoD) COMBINED ACTIVE DUTY (AD) EYE INJURY REPORT SUMMARY

	2013											
	Ambulatory MTF Visits				Deployment-Associated Healthcare				Hospitalizations			
	Primary		All Diagnoses		Primary		All Diagnoses		Primary		All Diagnoses	
	Count	Rate ¹	Count	Rate	Count	% total ³	Count	% total ³	Count	Rate	Count	Rate
ALL ACTIVE COMPONENT												
Total	10,462	7.42	12,622	8.95	628	100.00	662	100.00	47	0.03	180	0.13
Superficial Injuries	8,300	5.89	9,426	6.69	563	87.02	584	85.26	6	0.00	37	0.03
Contusion	1,239	0.89	1,656	1.19	35	5.41	41	5.99	9	0.01	26	0.02
Orbit	504	0.36	769	0.55	10	1.55	14	2.04	34	0.02	110	0.08
Lid/adnexa	353	0.25	438	0.31	3	0.46	3	0.44	7	0.00	27	0.02
Posterior segment	244	0.17	526	0.37	2	0.31	3	0.44	2	0.00	4	0.00
High Risk of Blindness	115	0.08	149	0.11	8	1.24	9	1.31	10	0.01	14	0.01
Burns	289	0.21	337	0.24	18	2.78	21	3.07	2	0.00	11	0.01
Anterior Segment	125	0.09	180	0.13	8	1.24	9	1.31	2	0.00	2	0.00
Optic/Cranial nerve	51	0.04	68	0.05	0	0.00	1	0.15	0	0.00	3	0.00
Male	8,853	7.37	10,687	8.90	517	82.32	545	82.33	45	0.04	168	0.14
Female	1,609	7.70	1,935	9.26	111	17.68	117	17.67	2	0.01	12	0.06
War	1	0.00	1	0.00	not assessed ²				0	0.00	4	0.003
Guns and explosives	70	0.05	80	0.06					6	0.00	27	0.019
Sports	76	0.05	91	0.06					2	0.00	4	0.003
Machinery and tools	743	0.53	779	0.55					8	0.01	10	0.007
Land transport	44	0.03	67	0.05					5	0.00	14	0.010
Other transport	4	0.00	8	0.01					0	0.00	0	0.000
Slips, trips and falls	645	0.46	722	0.51					5	0.00	16	0.011
Fighting, assault and horseplay	125	0.09	191	0.14					6	0.00	14	0.010
Other and unknown causes	9,512	6.75	11,610	8.24					40	0.03	145	0.103
ENLISTED (all diagnoses combined)												
Enlisted	8,757	7.53	10,603	9.11	540	85.99	571	86.25	44	0.04	162	0.14
<20	419	3.95	564	5.31	18	2.87	20	3.02	3	0.03	11	0.10
20-24	2,999	7.20	3,698	8.88	233	37.10	244	36.86	25	0.06	71	0.17
25-29	2,474	8.74	2,927	10.35	145	23.09	155	23.41	6	0.02	47	0.17
30-34	1,397	8.11	1,655	9.60	84	13.38	91	13.75	4	0.02	14	0.08
35-39	907	8.20	1,056	9.55	37	5.89	37	5.59	4	0.04	11	0.10
>=40	561	7.48	703	9.37	23	3.66	24	3.63	2	0.03	8	0.11
E0-E4	4,429	7.29	5,447	8.96	322	51.27	338	51.06	26	0.04	94	0.15
E5-E9	4,328	7.79	5,156	9.28	218	34.71	233	35.20	18	0.03	68	0.12
Infantry, Guncrew, Seamen	1,470	7.58	1,816	9.36	90	14.33	99	14.95	15	0.08	52	0.27
Electronic Equipment Repair	767	7.30	912	8.68	45	7.17	45	6.80	4	0.04	13	0.12
Communications & Intelligence	755	6.27	920	7.64	39	6.21	42	6.34	5	0.04	18	0.15
Healthcare	806	9.52	943	11.14	22	3.50	22	3.32	2	0.02	9	0.11
Technical & Other Professional	303	8.05	372	9.88	9	1.43	12	1.81	1	0.03	6	0.16
Functional Support & Admin	1,107	7.18	1,344	8.72	63	10.03	66	9.97	3	0.02	11	0.07
Electrical/Mechanical Repair	1,812	7.91	2,164	9.45	151	24.04	156	23.56	4	0.02	21	0.09
Craftwork & Construction	429	10.01	508	11.86	35	5.57	38	5.74	2	0.05	10	0.23
Service, Transport & Supply	968	7.32	1,160	8.78	72	11.46	77	11.63	6	0.05	15	0.11
Students, Trainees & Unknown Enlist	340	5.37	464	7.32	14	2.23	14	2.11	2	0.03	7	0.11
Army	3,470	8.05	4,257	9.88	222	35.35	241	36.40	24	0.06	80	0.19
Navy	1,645	6.25	1,968	7.48	191	30.41	195	29.46	9	0.03	25	0.09
Air Force	2,033	7.71	2,411	9.14	110	17.52	117	17.67	5	0.02	18	0.07
Marine Corps	1,163	6.73	1,464	8.47	17	2.71	18	2.72	5	0.03	36	0.21
Coast Guard	446	13.81	503	15.58	0	0.00	0	0.00	1	0.03	3	0.09
OFFICER (all diagnoses combined)												
Officer	1,705	6.92	2,019	8.20	88	14.01	91	13.75	3	0.01	18	0.07
<20	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
20-24	165	6.64	188	7.56	6	0.96	6	0.91	0	0.00	2	0.08
25-29	373	6.73	438	7.91	26	4.14	28	4.23	0	0.00	2	0.04
30-34	335	6.54	384	7.50	18	2.87	18	2.72	1	0.02	4	0.08
35-39	291	6.44	353	7.81	14	2.23	15	2.27	0	0.00	2	0.04
>=40	541	7.77	656	9.43	24	3.82	24	3.63	2	0.03	8	0.11
O0-O3,W0-W3	1,043	6.88	1,218	8.04	63	10.03	66	9.97	2	0.01	11	0.07
O4-O10,W4-W5	662	6.99	801	8.46	25	3.98	25	3.78	1	0.01	7	0.07
General/Flag Ofc & Executives	18	9.42	21	10.99	1	0.16	1	0.15	0	0.00	0	0.00
Tactical Operations Off.	550	6.35	660	7.62	37	5.89	39	5.89	1	0.01	8	0.09
Intelligence Off.	90	5.86	118	7.68	3	0.48	4	0.60	0	0.00	1	0.07
Engineering & Maintenance Off.	221	6.96	254	7.99	13	2.07	13	1.96	0	0.00	2	0.06
Healthcare Off.	313	8.16	361	9.41	5	0.80	5	0.76	1	0.03	3	0.08
Scientists & Professional Off.	99	6.85	122	8.44	5	0.80	5	0.76	0	0.00	1	0.07
Administrative Off.	110	6.88	130	8.13	9	1.43	9	1.36	0	0.00	0	0.00
Supply & Logistics Off.	127	6.27	149	7.36	10	1.59	10	1.51	1	0.05	1	0.05
Students, Trainees & Unknown Off.	177	8.21	204	9.47	5	0.80	5	0.76	0	0.00	2	0.09
Army	688	6.98	808	8.20	53	8.44	54	8.16	2	0.02	10	0.10
Navy	334	6.25	390	7.29	15	2.39	16	2.42	0	0.00	4	0.07
Air Force	454	7.08	552	8.61	16	2.55	17	2.57	0	0.00	2	0.03
Marine Corps	152	7.02	173	7.99	4	0.64	4	0.60	0	0.00	0	0.00
Coast Guard	77	9.17	96	11.43	0	0.00	0	0.00	1	0.12	2	0.24

1. Rates are per 1,000 person-years.

2. Use of ICD-9-CM E-codes for "cause of injury" is largely incomplete for theater healthcare records and therefore omitted.

3. Person-time is not available for deployers so the proportion of the total number of diagnoses is shown.

[Return to Introduction Page](#)

