

**US DEPARTMENT OF
DEFENSE (DoD) COMBINED
ACTIVE DUTY
EYE INJURY SUMMARY
CALENDAR YEAR 2008**

Approved for public release, distribution unlimited

2013



CY 2008 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>

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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>.

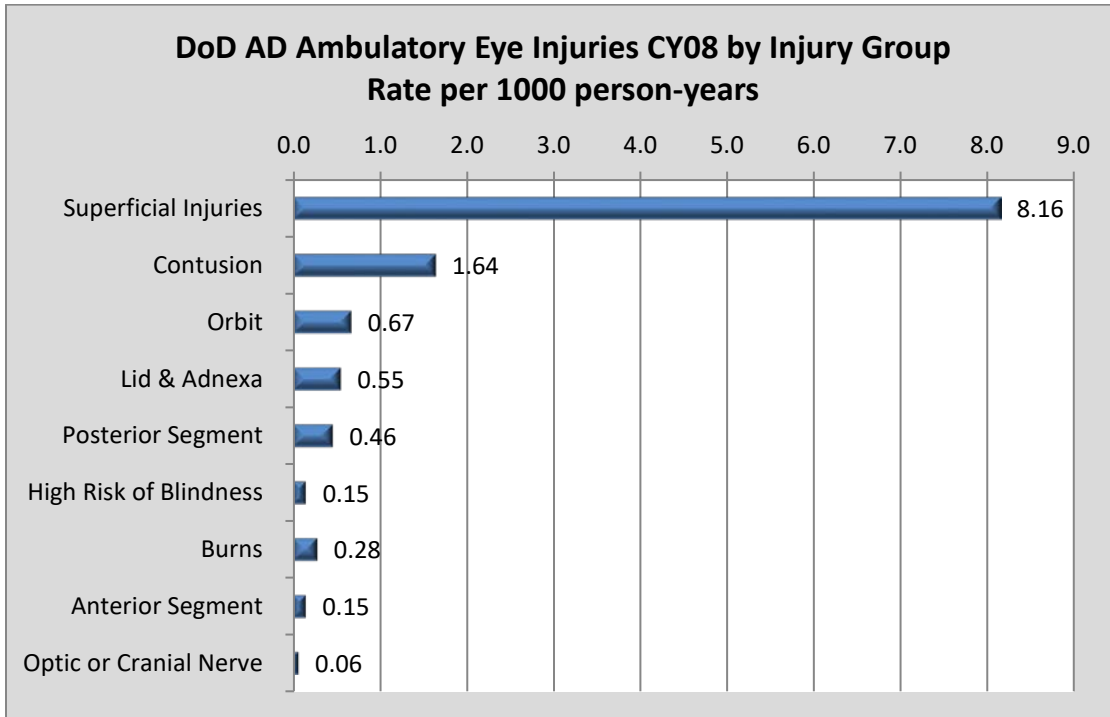
- 1) **Superficial:** all 918 series codes (superficial injury of eye and adnexa) and all 930 series codes (foreign body on external eye).
- 2) **Contusion:** all 921 series codes (contusion of eye and adnexa).
- 3) **Orbit:** All 802 series codes (fracture of face bones), 870.3 and 870.4 (penetrating 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.

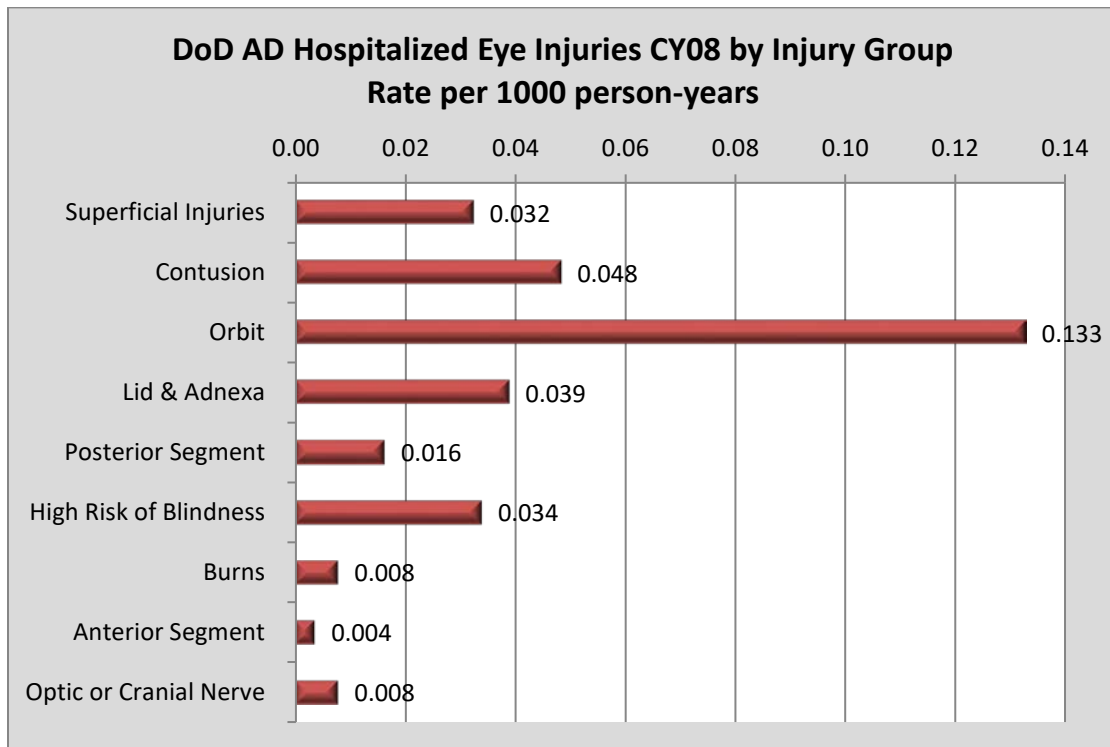
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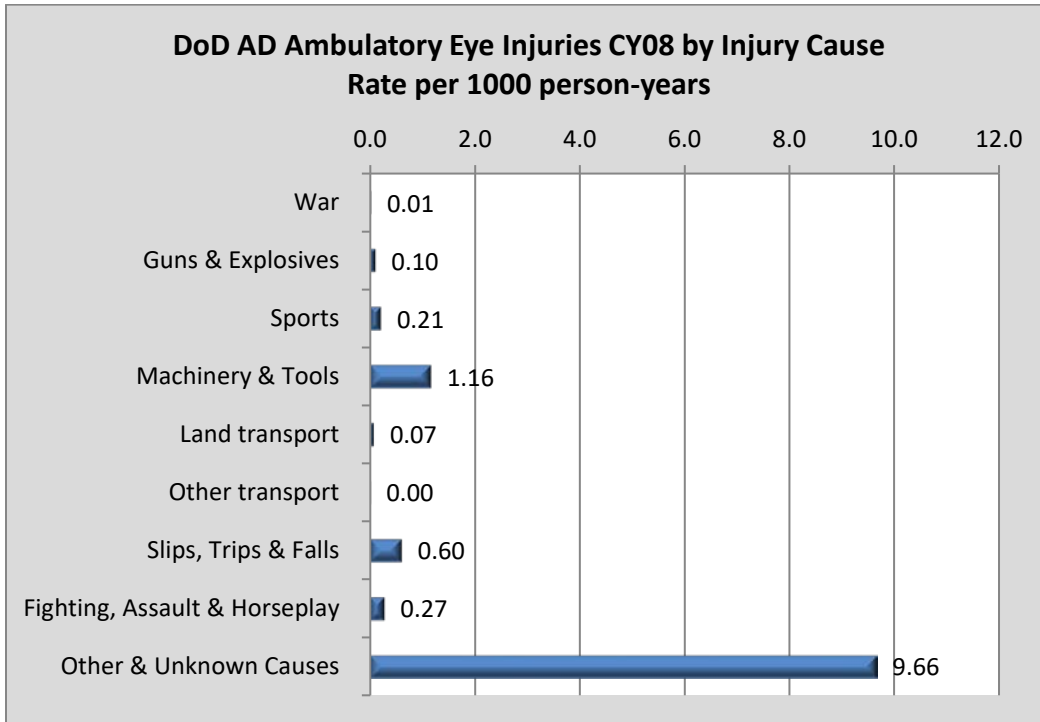
Please note the difference in scale between Ambulatory and Hospitalized graphs



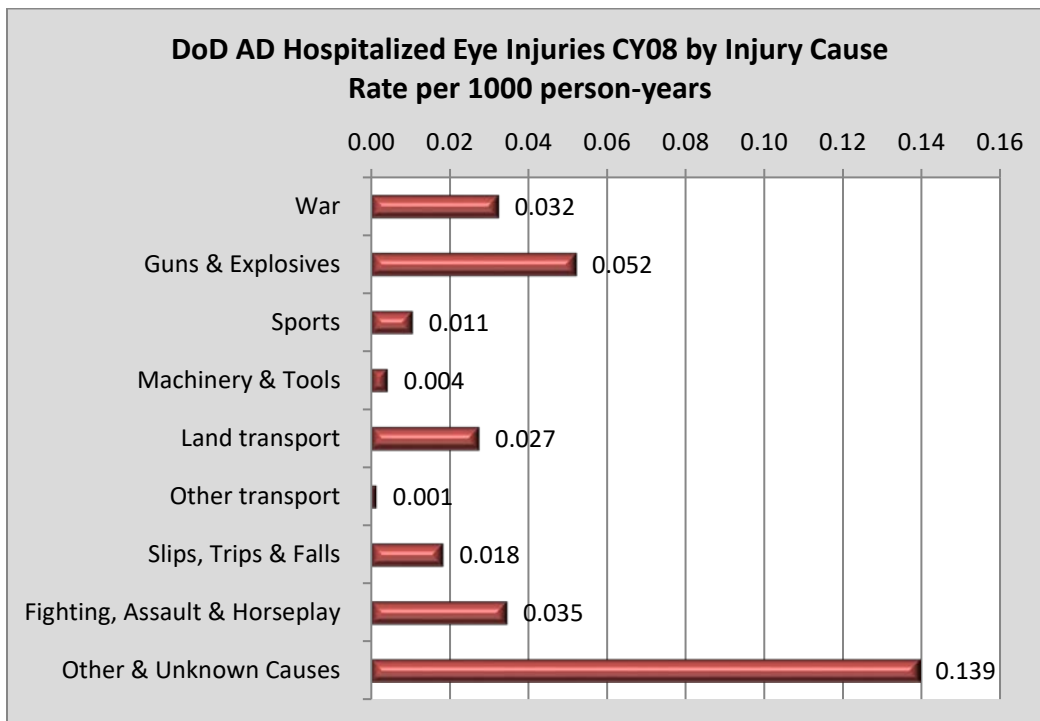
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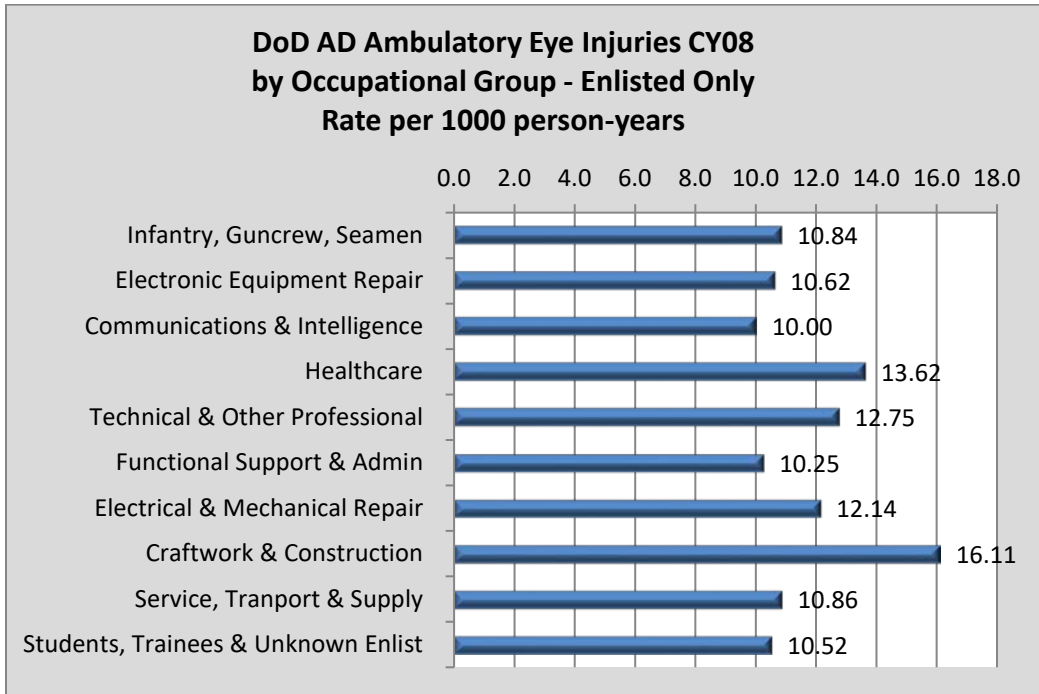
Please note the difference in scale between Ambulatory and Hospitalized graphs



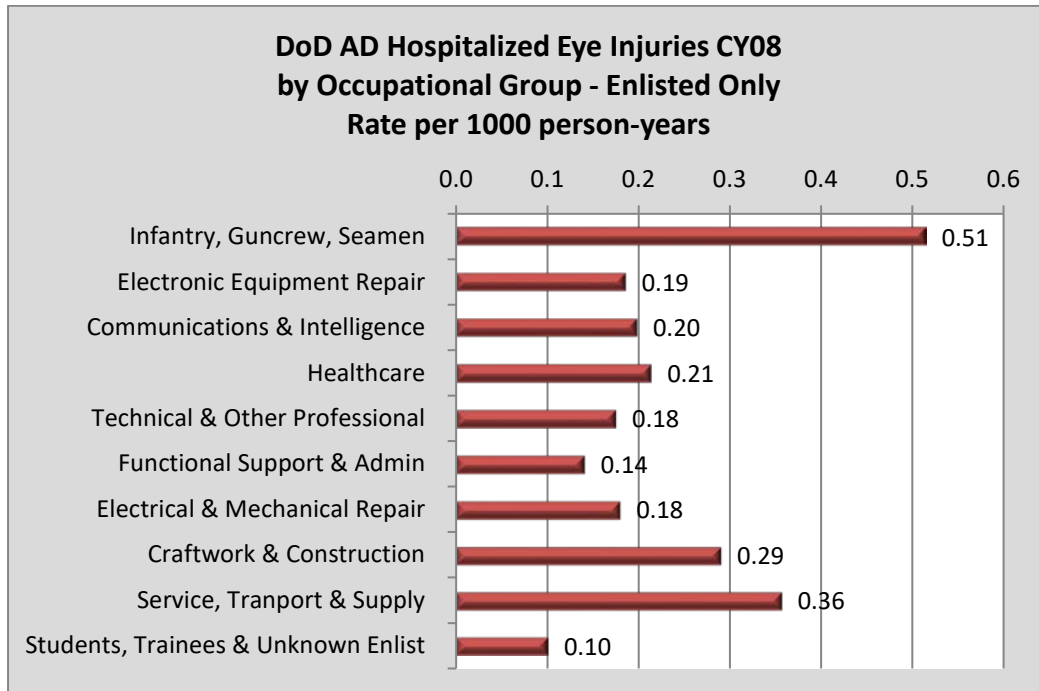
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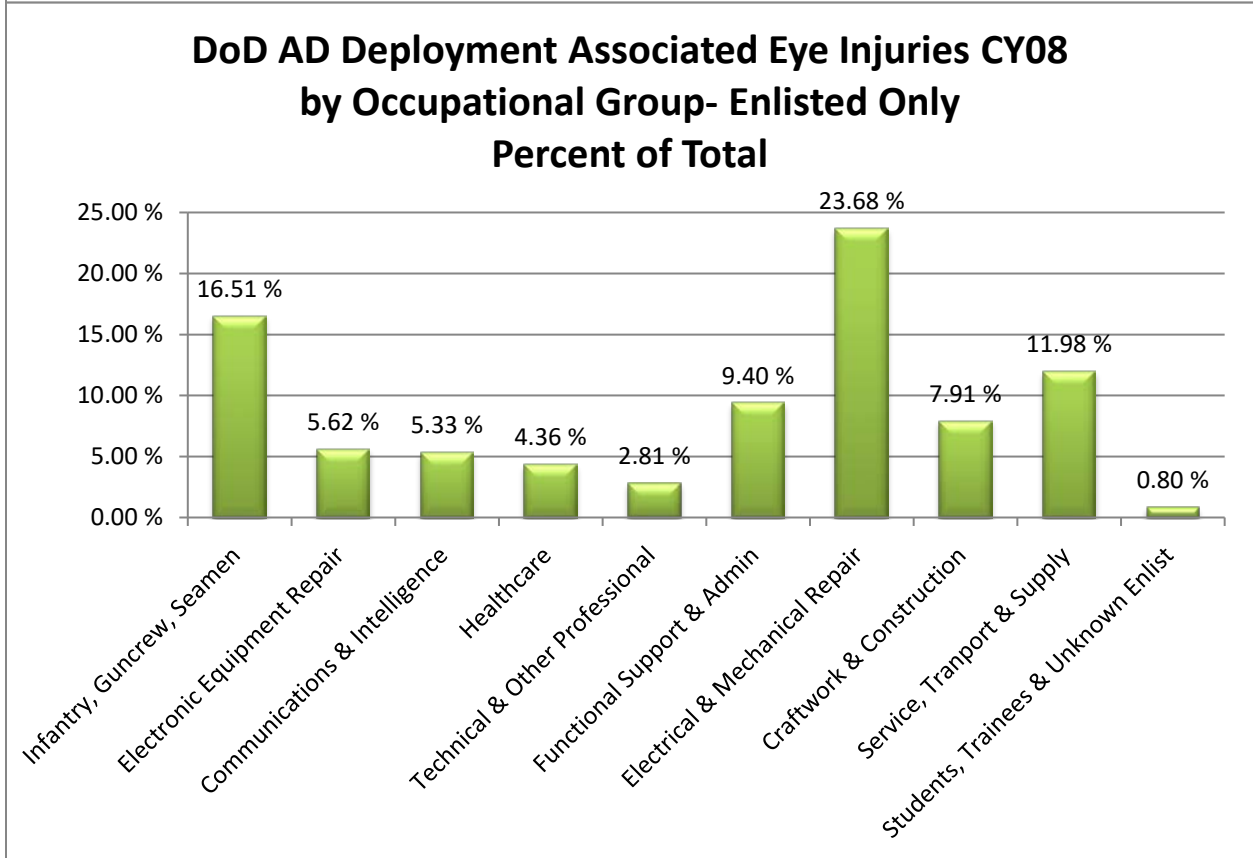
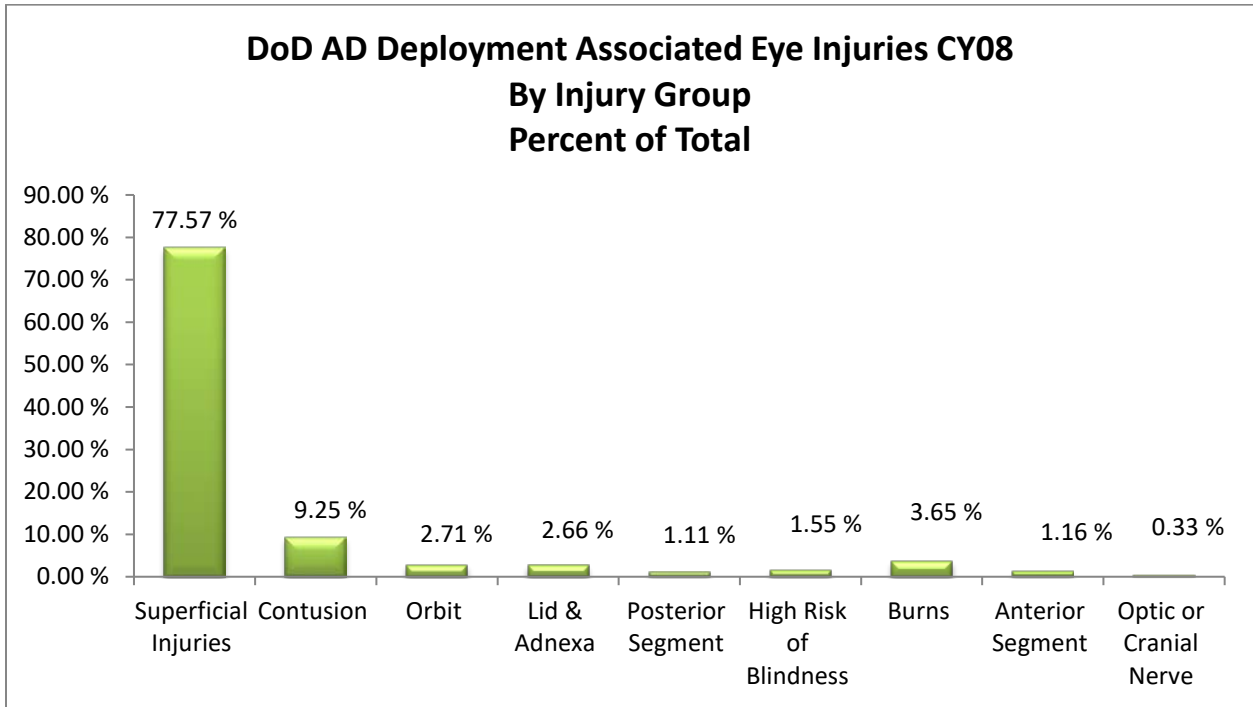
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	2008											
	Ambulatory MTF Visits				Deployment-Associated Healthcare				Hospitalizations			
	Primary		All Diagnoses		Primary		All Diagnoses		Primary		All Diagnoses	
	Count	Rate ¹	Count	Rate	Count	% total ¹	Count	% total ¹	Count	Rate	Count	Rate
ALL ACTIVE COMPONENT												
Total	13,240	9.33	15,885	11.19	1,633	100.00	1,744	100.00	87	0.06	329	0.23
Superficial Injuries	10,076	7.10	11,584	8.16	1,328	78.63	1,401	77.57	12	0.01	46	0.03
Contusion	1,770	1.26	2,310	1.64	145	8.58	167	9.25	17	0.01	68	0.05
Orbit	673	0.48	948	0.67	44	2.61	49	2.71	63	0.04	188	0.13
Lid & Adnexa	646	0.46	777	0.55	47	2.78	48	2.66	11	0.01	55	0.04
Posterior Segment	384	0.27	648	0.46	11	0.65	20	1.11	9	0.01	23	0.02
High Risk of Blindness	174	0.12	210	0.15	27	1.60	28	1.55	22	0.02	48	0.03
Burns	354	0.25	394	0.28	64	3.79	66	3.65	2	0.00	11	0.01
Anterior Segment	150	0.11	208	0.15	19	1.12	21	1.16	3	0.00	5	0.00
Optic or Cranial Nerve	58	0.04	89	0.06	4	0.24	6	0.33	4	0.00	11	0.01
Male	11,279	9.26	13,585	11.15	1,398	85.61	1,502	86.12	81	0.07	315	0.26
Female	1,961	9.74	2,300	11.42	235	14.39	242	13.88	6	0.03	14	0.07
War	7	0.00	20	0.01	not assessed ²				10	0.01	46	0.03
Guns & Explosives	127	0.09	144	0.10					21	0.01	74	0.05
Sports	258	0.18	292	0.21					11	0.01	15	0.01
Machinery & Tools	1,560	1.10	1,647	1.16					4	0.00	6	0.00
Land transport	60	0.04	100	0.07					11	0.01	39	0.03
Other transport	4	0.00	5	0.00					1	0.00	2	0.00
Slips, Trips & Falls	768	0.54	856	0.60					13	0.01	26	0.02
Fighting, Assault & Horseplay	247	0.17	385	0.27					18	0.01	49	0.03
Other & Unknown Causes	11,254	7.93	13,719	9.66					54	0.04	198	0.14
ENLISTED (all diagnoses combined)												
Enlisted	11,241	9.46	13,484	11.35	1,450	88.79	1,542	88.42	78	0.07	305	0.26
<20	903	7.13	1,081	8.53	55	3.37	59	3.38	10	0.08	35	0.28
20-24	4,312	9.40	5,200	11.33	638	39.07	679	38.93	36	0.08	154	0.34
25-29	2,780	10.56	3,294	12.52	360	22.05	384	22.02	21	0.08	60	0.23
30-34	1,418	9.38	1,704	11.27	196	12.00	202	11.58	4	0.03	28	0.19
35-39	1,111	9.44	1,318	11.19	120	7.35	128	7.34	4	0.03	14	0.12
>=40	717	10.19	887	12.61	81	4.96	90	5.16	3	0.04	14	0.20
E0-E4	6,021	9.80	7,262	11.82	833	51.01	883	50.63	52	0.08	204	0.33
E5-E9	5,220	9.10	6,222	10.84	617	37.78	659	37.79	26	0.05	101	0.18
Infantry, Guncrew, Seamen	1,885	8.66	2,360	10.84	267	16.35	288	16.51	20	0.09	112	0.51
Electronic Equipment Repair	805	8.80	971	10.62	91	5.57	98	5.62	5	0.05	17	0.19
Communications & Intelligence	906	8.17	1,110	10.00	87	5.33	93	5.33	7	0.06	22	0.20
Healthcare	918	11.55	1,083	13.62	73	4.47	76	4.36	9	0.11	17	0.21
Technical & Other Professional	439	10.99	509	12.75	42	2.57	49	2.81	2	0.05	7	0.18
Functional Support & Admin	1,535	8.65	1,818	10.25	153	9.37	164	9.40	6	0.03	25	0.14
Electrical & Mechanical Repair	2,477	10.36	2,903	12.14	395	24.19	413	23.68	14	0.06	43	0.18
Craftwork & Construction	623	13.92	721	16.11	134	8.21	138	7.91	5	0.11	13	0.29
Service, Transport & Supply	1,044	8.87	1,278	10.86	194	11.88	209	11.98	10	0.08	42	0.36
Students, Trainees & Unknown Enlist	609	8.76	731	10.52	14	0.86	14	0.80	0	0.00	7	0.10
Army	4,357	9.80	5,435	12.23	886	54.26	942	54.01	42	0.09	161	0.36
Navy	2,321	8.40	2,700	9.78	235	14.39	247	14.16	17	0.06	53	0.19
Air Force	2,517	9.69	2,913	11.21	229	14.02	237	13.59	10	0.04	32	0.12
Marine Corps	1,556	8.93	1,862	10.69	100	6.12	116	6.65	8	0.05	55	0.32
Coast Guard	490	14.75	574	17.28	0	0.00	0	0.00	1	0.03	4	0.12
OFFICER (all diagnoses combined)												
Officer	1,999	8.63	2,401	10.36	183	11.21	202	11.58	9	0.04	24	0.10
<20	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
20-24	214	8.22	247	9.49	11	0.67	15	0.86	2	0.08	3	0.12
25-29	426	8.38	520	10.23	51	3.12	53	3.04	5	0.10	9	0.18
30-34	373	7.96	423	9.03	33	2.02	37	2.12	1	0.02	5	0.11
35-39	401	8.20	473	9.68	49	3.00	53	3.04	0	0.00	3	0.06
>=40	585	9.90	738	12.49	39	2.39	44	2.52	1	0.02	4	0.07
O0-O3,W0-W3	1,220	8.70	1,453	10.36	125	7.65	139	7.97	8	0.06	18	0.13
O4-O10,W4-W5	779	8.51	948	10.36	58	3.55	63	3.61	1	0.01	6	0.07
General/Flag Ofc & Executives	17	8.77	19	9.80	1	0.06	1	0.06	0	0.00	0	0.00
Tactical Operations Off.	621	7.65	744	9.17	56	3.43	61	3.50	4	0.05	11	0.14
Intelligence Off.	93	7.09	112	8.53	12	0.73	13	0.75	1	0.08	2	0.15
Engineering & Maintenance Off.	299	9.64	349	11.26	36	2.20	40	2.29	2	0.06	2	0.06
Healthcare Off.	332	9.35	413	11.63	25	1.53	27	1.55	0	0.00	2	0.06
Scientists & Professional Off.	114	8.75	146	11.20	7	0.43	7	0.40	0	0.00	2	0.15
Administrative Off.	130	9.01	151	10.47	20	1.22	20	1.15	0	0.00	0	0.00
Supply & Logistics Off.	152	8.08	190	10.10	25	1.53	32	1.83	0	0.00	2	0.11
Students, Trainees & Unknown Off.	241	10.58	277	12.17	1	0.06	1	0.06	2	0.09	3	0.13
Army	771	8.85	958	11.00	130	7.96	144	8.26	6	0.07	14	0.16
Navy	405	7.85	481	9.33	21	1.29	21	1.20	0	0.00	3	0.06
Air Force	559	8.61	655	10.09	22	1.35	25	1.43	3	0.05	5	0.08
Marine Corps	167	8.32	188	9.37	10	0.61	12	0.69	0	0.00	2	0.10
Coast Guard	97	11.99	119	14.71	0	0.00	0	0.00	0	0.00	0	0.00

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.

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