

**US DEPARTMENT OF
DEFENSE (DoD) COMBINED
ACTIVE DUTY
EYE INJURY SUMMARY
CALENDAR YEAR 2007**

Approved for public release, distribution unlimited

2013



CY 2007 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>.

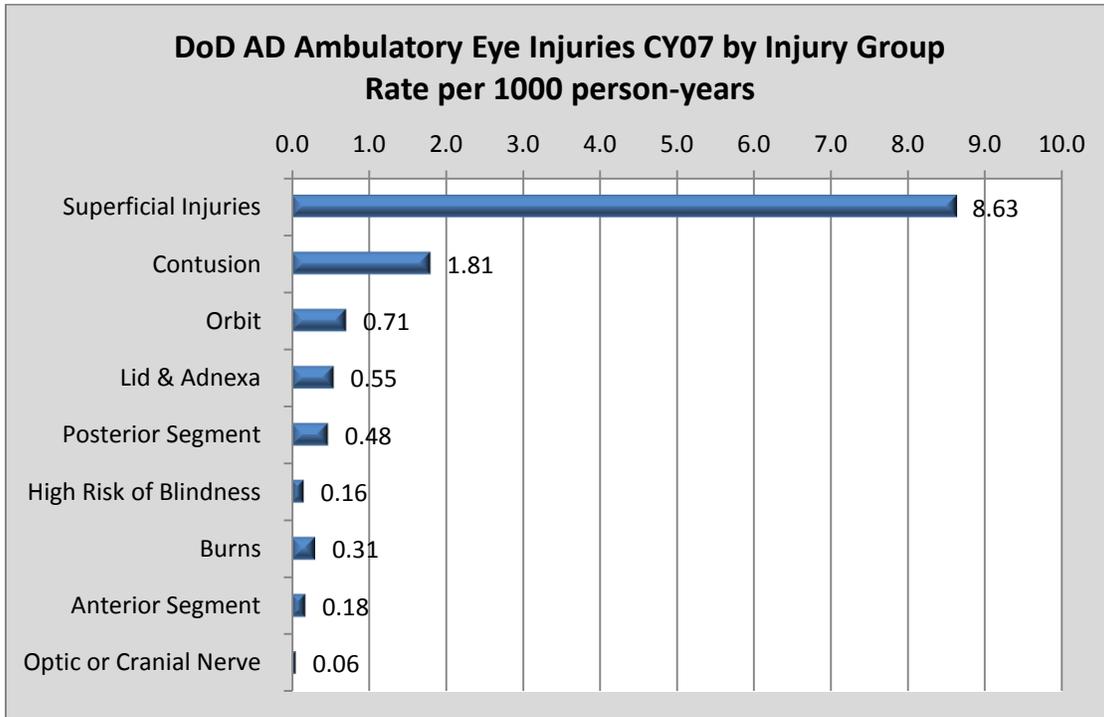
- 1) **Superficial:** all 918 series codes (superficial injury of eye and adnexa) and all 930 series codes (foreign body on external eye).
- 2) **Contusion:** all 921 series codes (contusion of eye and adnexa).
- 3) **Orbit:** All 802 series codes (fracture of face bones), 870.3 and 870.4 (penetrating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

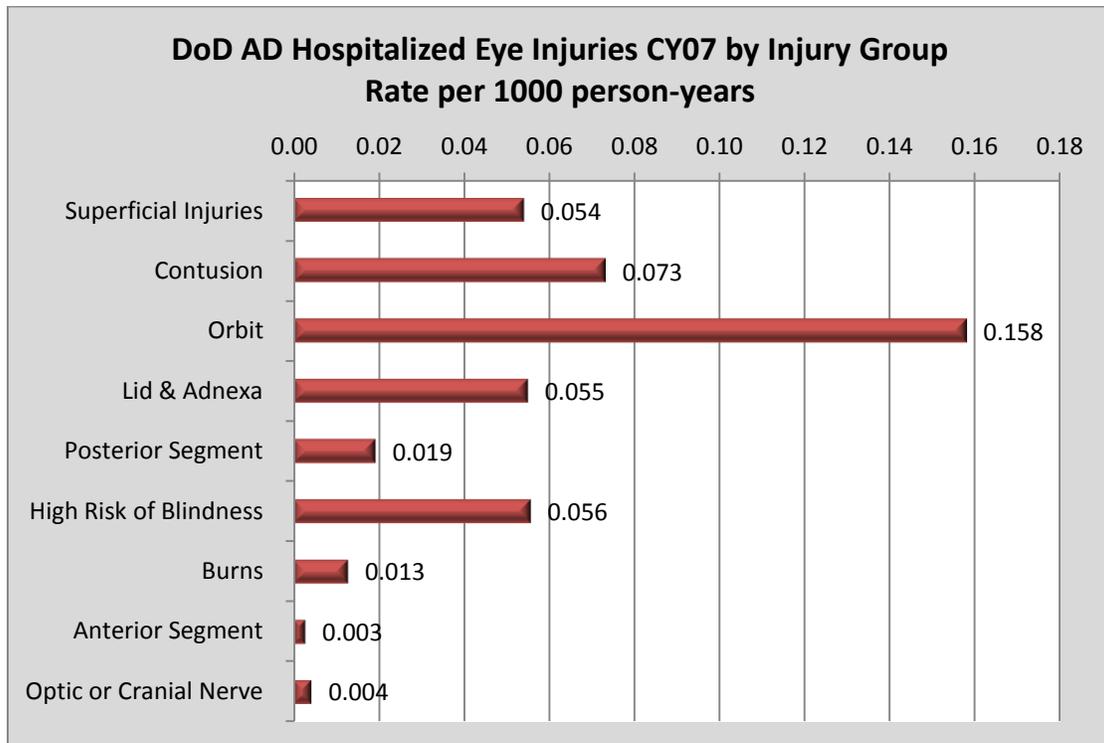
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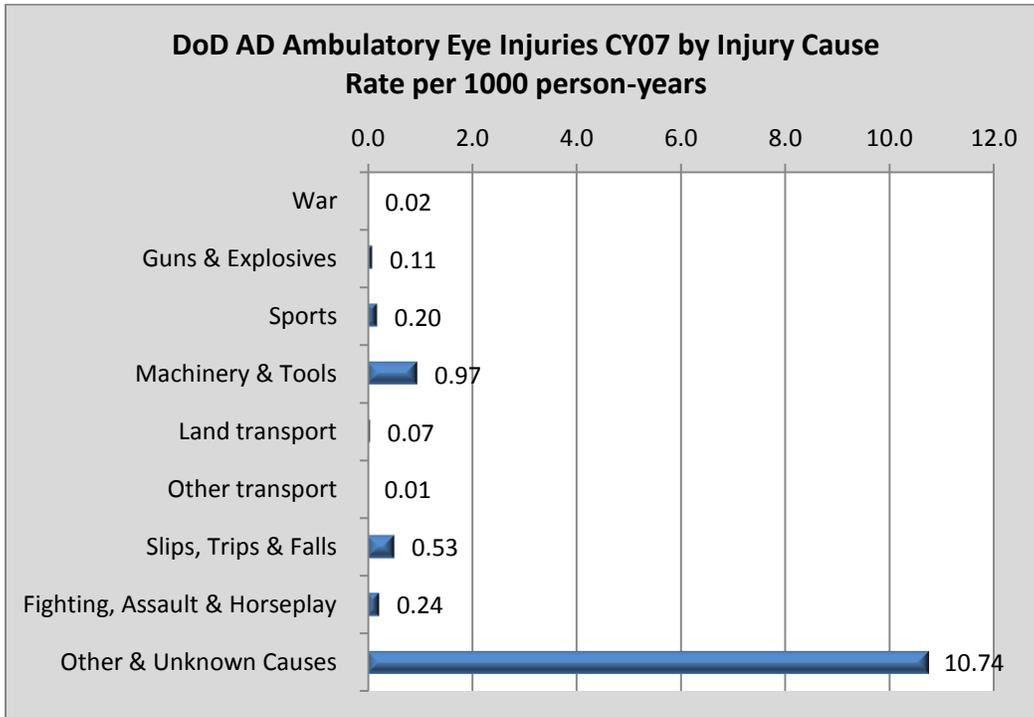
Please note the difference in scale between Ambulatory and Hospitalized graphs



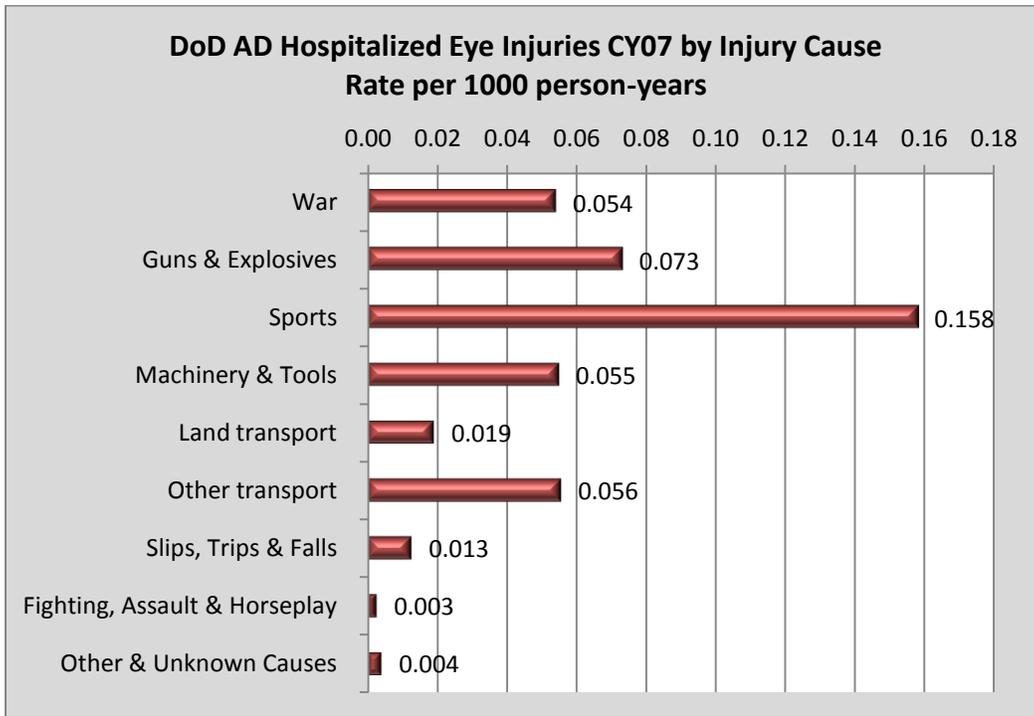
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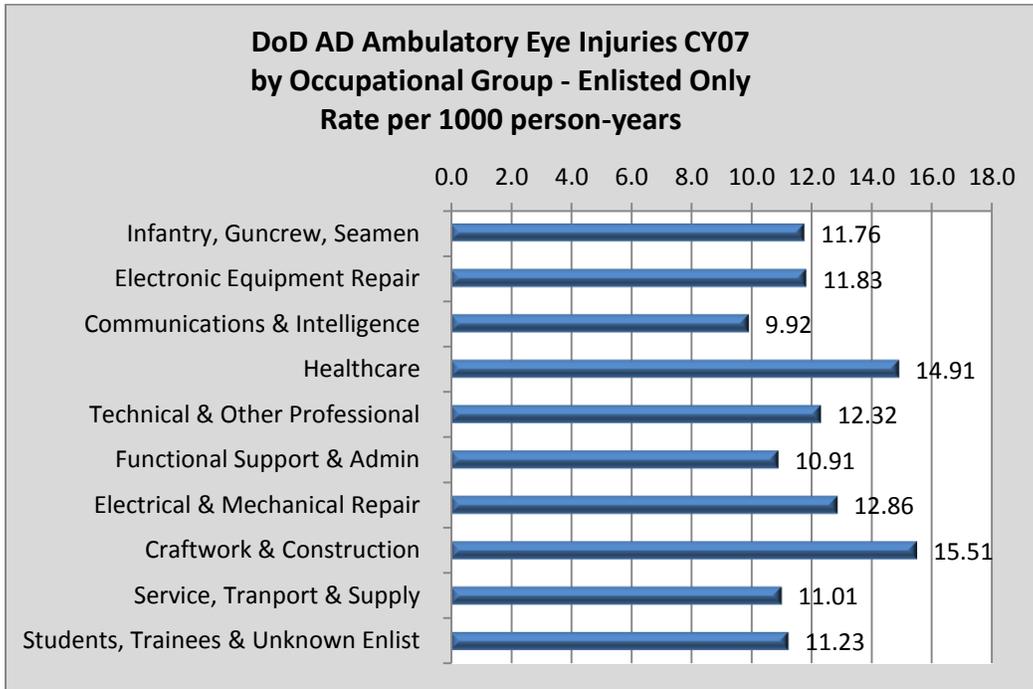
Please note the difference in scale between Ambulatory and Hospitalized graphs



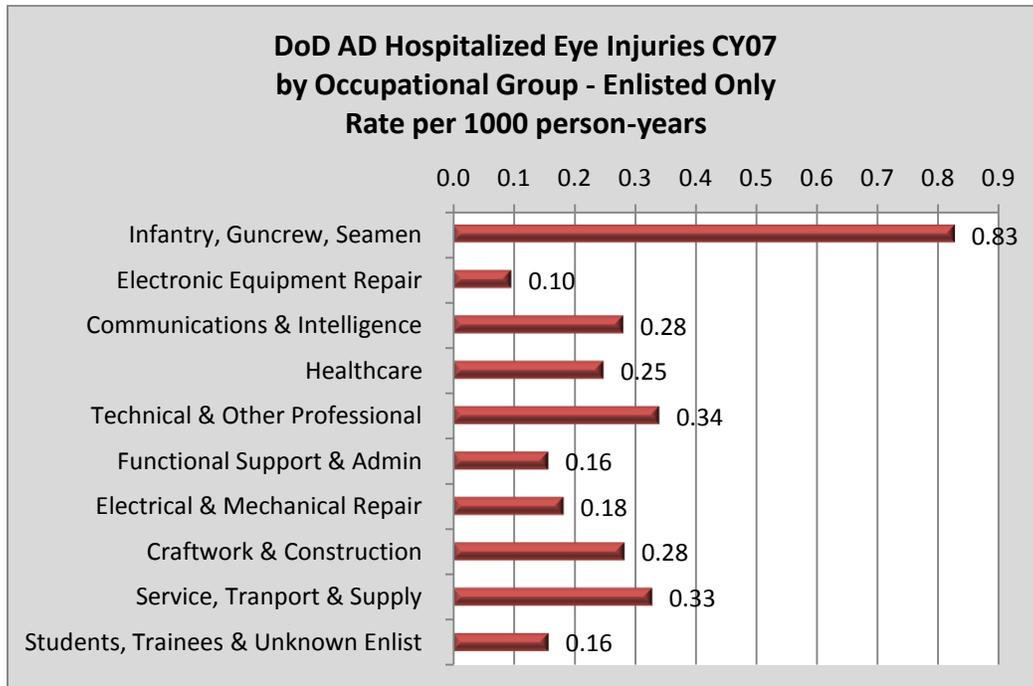
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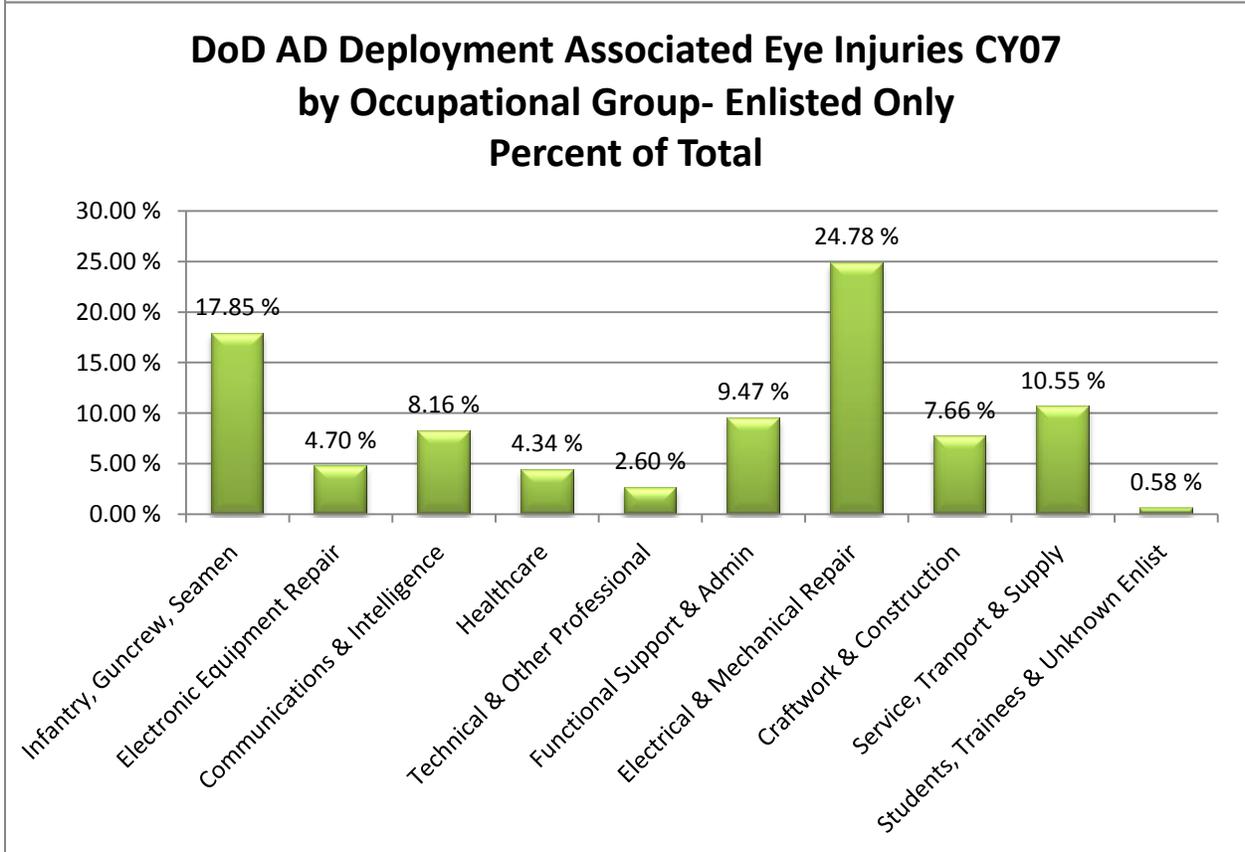
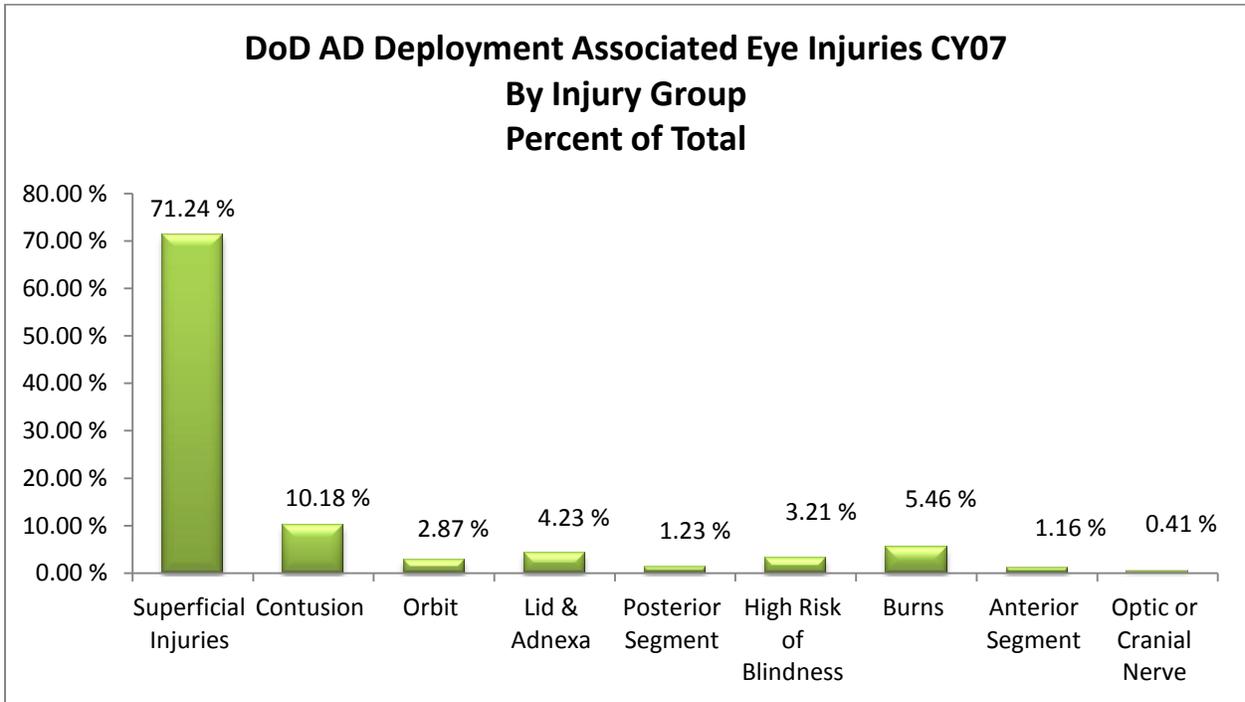
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	2007											
	Ambulatory MTF Visits				Deployment-Associated Healthcare				Hospitalizations			
	Primary		All Diagnoses		Primary		All Diagnoses		Primary		All Diagnoses	
	Count	Rate ¹	Count	Rate	Count	% total ²	Count	% total ²	Count	Rate	Count	Rate
ALL ACTIVE COMPONENT												
Total	13,759	9.82	16,502	11.78	1,267	100.00	1,384	100.00	89	0.06	412	0.29
Superficial Injuries	10,502	7.50	12,090	8.63	961	71.77	1,043	71.24	18	0.01	76	0.05
Contusion	1,967	1.42	2,510	1.81	130	9.71	149	10.18	25	0.02	102	0.07
Orbit	712	0.51	995	0.71	38	2.84	42	2.87	64	0.05	221	0.16
Lid & Adnexa	620	0.44	769	0.55	57	4.26	62	4.23	17	0.01	77	0.06
Posterior Segment	394	0.28	667	0.48	12	0.90	18	1.23	12	0.01	27	0.02
High Risk of Blindness	190	0.14	229	0.16	43	3.21	47	3.21	37	0.03	78	0.06
Burns	398	0.28	436	0.31	78	5.83	80	5.46	2	0.00	18	0.01
Anterior Segment	192	0.14	256	0.18	14	1.05	17	1.16	3	0.00	4	0.00
Optic or Cranial Nerve	47	0.03	83	0.06	6	0.45	6	0.41	2	0.00	6	0.00
Male	11,669	9.72	14,003	11.67	1,103	87.06	1,212	87.57	87	0.07	389	0.32
Female	2,090	10.43	2,499	12.47	164	12.94	172	12.43	2	0.01	23	0.11
War	14	0.01	23	0.02	not assessed²				31	0.02	106	0.08
Guns & Explosives	141	0.10	153	0.11					36	0.03	147	0.10
Sports	257	0.18	282	0.20					8	0.01	14	0.01
Machinery & Tools	1,280	0.91	1,358	0.97					31	0.02	33	0.02
Land transport	63	0.04	93	0.07					9	0.01	42	0.03
Other transport	7	0.00	9	0.01					0	0.00	5	0.00
Slips, Trips & Falls	667	0.48	741	0.53					9	0.01	33	0.02
Fighting, Assault & Horseplay	209	0.15	336	0.24					20	0.01	35	0.02
Other & Unknown Causes	12,384	8.84	15,040	10.74					36	0.03	194	0.14
ENLISTED (all diagnoses combined)												
Enlisted	11,680	9.98	14,007	11.97	1,143	90.21	1,255	90.68	85	0.07	380	0.32
<20	969	7.69	1,180	9.36	63	4.97	66	4.77	9	0.07	42	0.33
20-24	4,547	9.95	5,508	12.06	569	44.91	626	45.23	52	0.11	207	0.45
25-29	2,808	11.19	3,330	13.27	262	20.68	285	20.59	13	0.05	67	0.27
30-34	1,460	9.83	1,710	11.52	113	8.92	127	9.18	5	0.03	38	0.26
35-39	1,119	9.50	1,325	11.25	91	7.18	101	7.30	3	0.03	17	0.14
>=40	777	11.07	954	13.60	45	3.55	50	3.61	3	0.04	9	0.13
E0-E4	6,295	10.46	7,622	12.67	718	56.67	792	57.23	57	0.09	251	0.42
E5-E9	5,385	9.47	6,385	11.23	425	33.54	463	33.45	28	0.05	129	0.23
Infantry, Guncrew, Seamen	1,994	9.45	2,483	11.76	209	16.50	247	17.85	45	0.21	175	0.83
Electronic Equipment Repair	932	10.06	1,096	11.83	61	4.81	65	4.70	0	0.00	9	0.10
Communications & Intelligence	883	8.02	1,092	9.92	96	7.58	113	8.16	7	0.06	31	0.28
Healthcare	1,005	12.53	1,196	14.91	57	4.50	60	4.34	2	0.02	20	0.25
Technical & Other Professional	396	10.40	469	12.32	34	2.68	36	2.60	4	0.11	13	0.34
Functional Support & Admin	1,601	9.05	1,930	10.91	124	9.79	131	9.47	3	0.02	28	0.16
Electrical & Mechanical Repair	2,658	11.07	3,087	12.86	326	25.73	343	24.78	8	0.03	44	0.18
Craftwork & Construction	622	13.59	710	15.51	102	8.05	106	7.66	6	0.13	13	0.28
Service, Transport & Supply	1,007	8.97	1,236	11.01	126	9.94	146	10.55	8	0.07	37	0.33
Students, Trainees & Unknown Enlist	582	9.23	708	11.23	8	0.63	8	0.58	2	0.03	10	0.16
Army	4,411	10.35	5,415	12.71	730	57.62	819	59.18	51	0.12	219	0.51
Navy	2,525	8.94	2,948	10.44	231	18.23	236	17.05	10	0.04	49	0.17
Air Force	2,710	10.19	3,224	12.12	112	8.84	118	8.53	6	0.02	36	0.14
Marine Corps	1,534	9.40	1,865	11.42	69	5.45	81	5.85	16	0.10	73	0.45
Coast Guard	500	15.40	555	17.09	1	0.08	1	0.07	2	0.06	3	0.09
OFFICER (all diagnoses combined)												
Officer	2,079	9.02	2,495	10.82	124	9.79	129	9.32	4	0.02	32	0.14
<20	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
20-24	212	8.31	242	9.49	11	0.87	12	0.87	1	0.04	4	0.16
25-29	411	8.11	487	9.61	32	2.53	32	2.31	1	0.02	11	0.22
30-34	418	8.70	488	10.15	27	2.13	30	2.17	0	0.00	7	0.15
35-39	448	9.20	548	11.26	28	2.21	28	2.02	1	0.02	6	0.12
>=40	590	10.25	730	12.68	26	2.05	27	1.95	1	0.02	4	0.07
O0-O3,W0-W3	1,246	8.96	1,469	10.56	88	6.95	92	6.65	3	0.02	25	0.18
O4-O10,W4-W5	833	9.11	1,026	11.22	36	2.84	37	2.67	1	0.01	7	0.08
General/Flag Ofc & Executives	15	7.72	26	13.37	1	0.08	1	0.07	0	0.00	0	0.00
Tactical Operations Off.	636	7.74	756	9.20	44	3.47	48	3.47	3	0.04	18	0.22
Intelligence Off.	112	8.71	143	11.12	11	0.87	12	0.87	0	0.00	2	0.16
Engineering & Maintenance Off.	307	9.27	368	11.11	24	1.89	24	1.73	0	0.00	0	0.00
Healthcare Off.	368	10.48	437	12.44	17	1.34	17	1.23	0	0.00	5	0.14
Scientists & Professional Off.	127	9.81	163	12.59	3	0.24	3	0.22	1	0.08	1	0.08
Administrative Off.	144	10.03	169	11.78	7	0.55	7	0.51	0	0.00	1	0.07
Supply & Logistics Off.	160	9.04	192	10.85	14	1.10	14	1.01	0	0.00	2	0.11
Students, Trainees & Unknown Off.	210	10.32	241	11.85	3	0.24	3	0.22	0	0.00	3	0.15
Army	762	9.07	950	11.31	87	6.87	91	6.58	3	0.04	19	0.23
Navy	466	9.04	541	10.49	18	1.42	18	1.30	1	0.02	6	0.12
Air Force	610	9.03	725	10.73	12	0.95	12	0.87	0	0.00	4	0.06
Marine Corps	153	7.89	178	9.18	7	0.55	8	0.58	0	0.00	2	0.10
Coast Guard	88	11.02	101	12.65	0	0.00	0	0.00	0	0.00	1	0.13

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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