

**US DEPARTMENT OF
DEFENSE (DoD) COMBINED
ACTIVE DUTY
EYE INJURY SUMMARY
CALENDAR YEAR 2005**

Approved for public release, distribution unlimited

2013



CY 2005 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>.

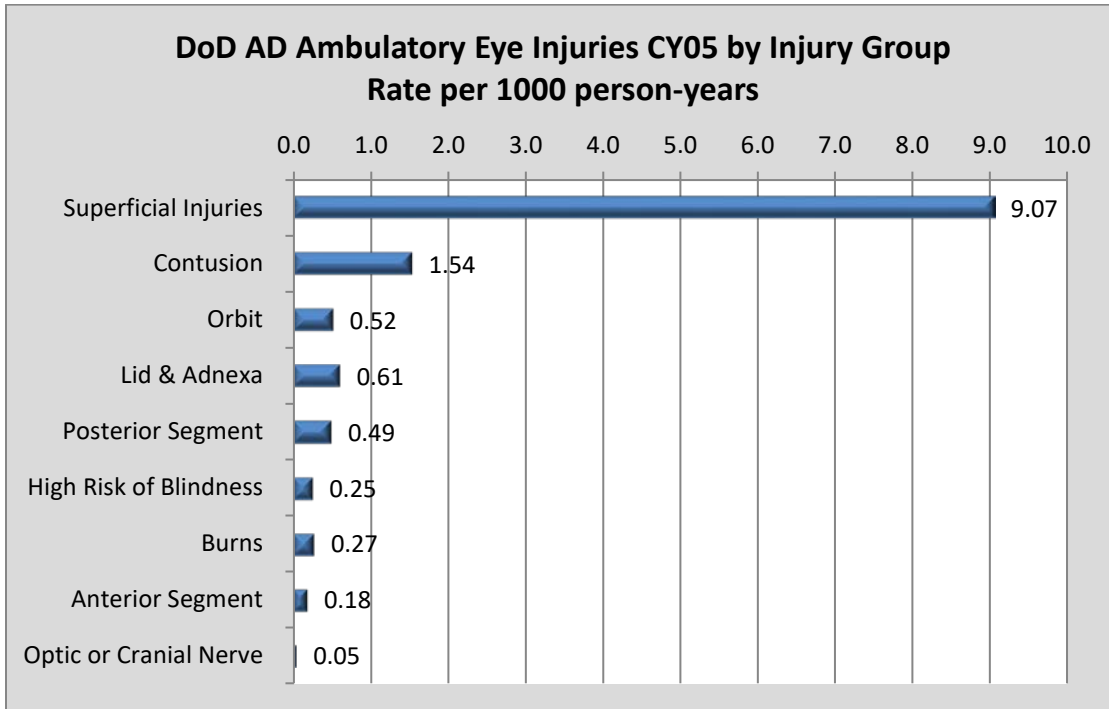
- 1) **Superficial:** all 918 series codes (superficial injury of eye and adnexa) and all 930 series codes (foreign body on external eye).
- 2) **Contusion:** all 921 series codes (contusion of eye and adnexa).
- 3) **Orbit:** All 802 series codes (fracture of face bones), 870.3 and 870.4 (penetrating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

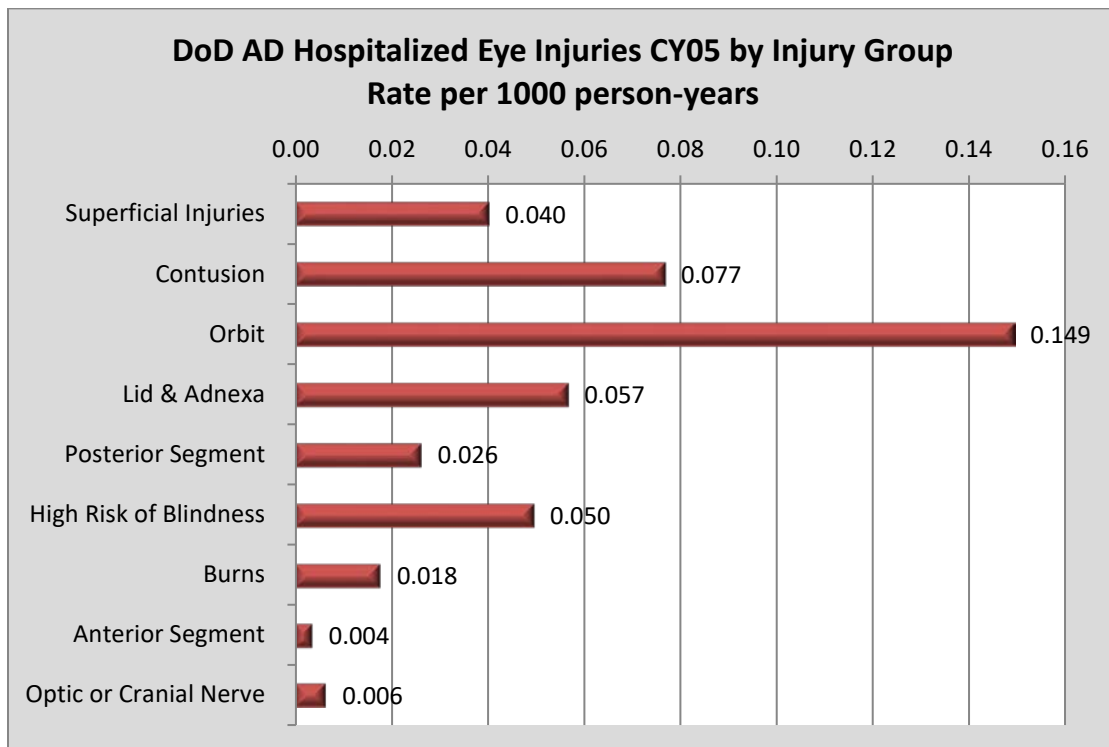
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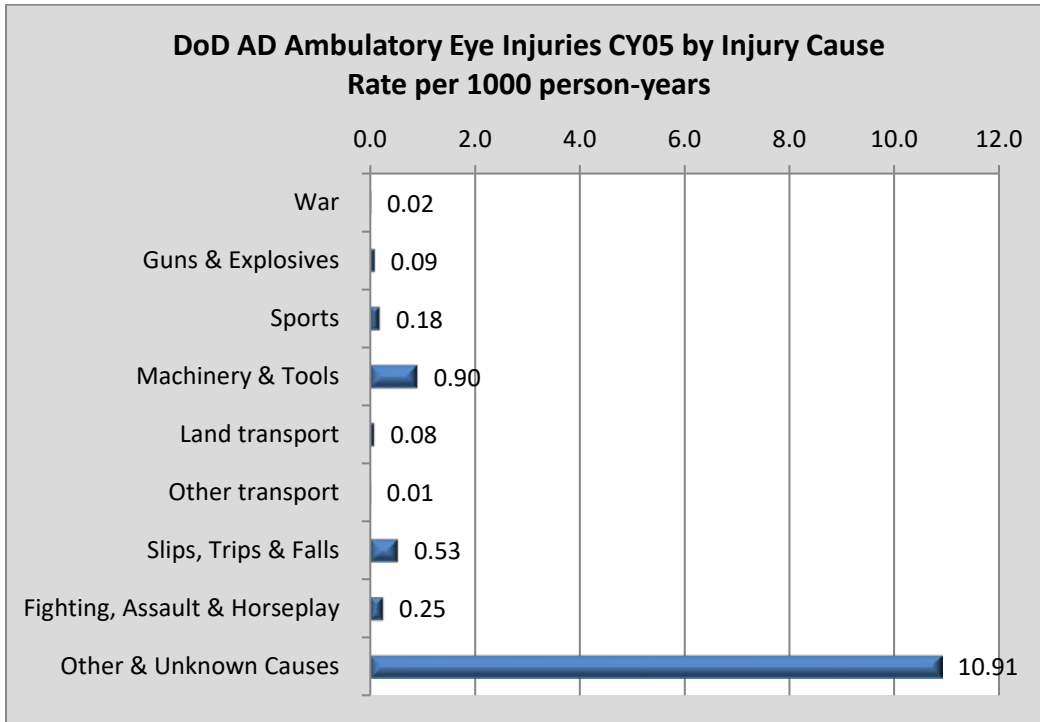
Please note the difference in scale between Ambulatory and Hospitalized graphs



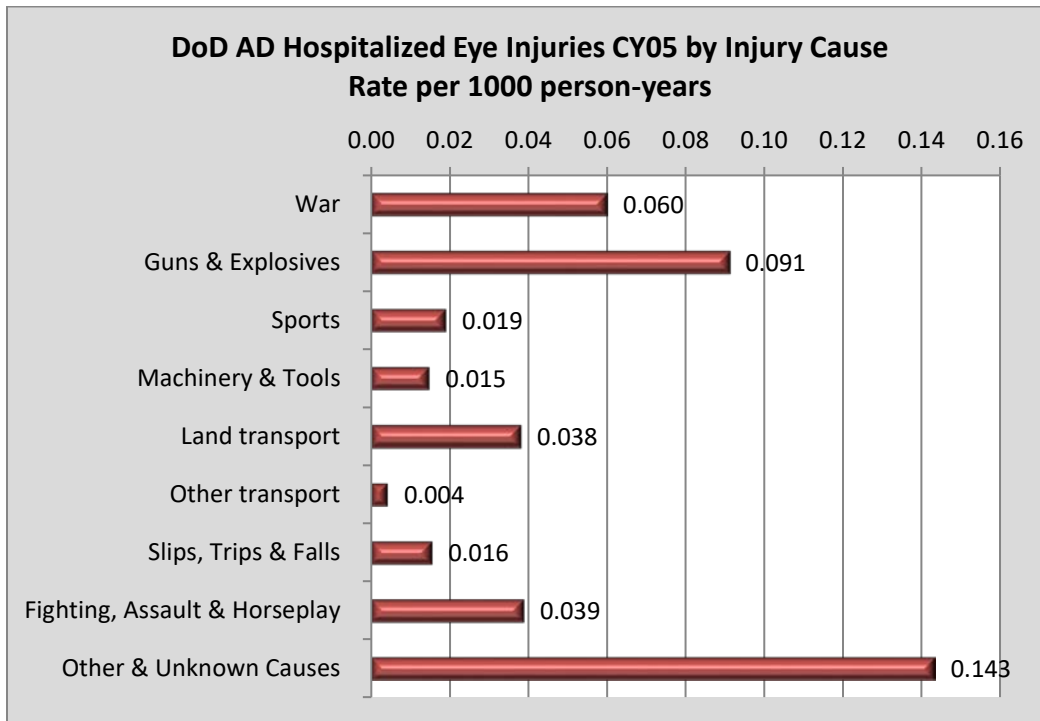
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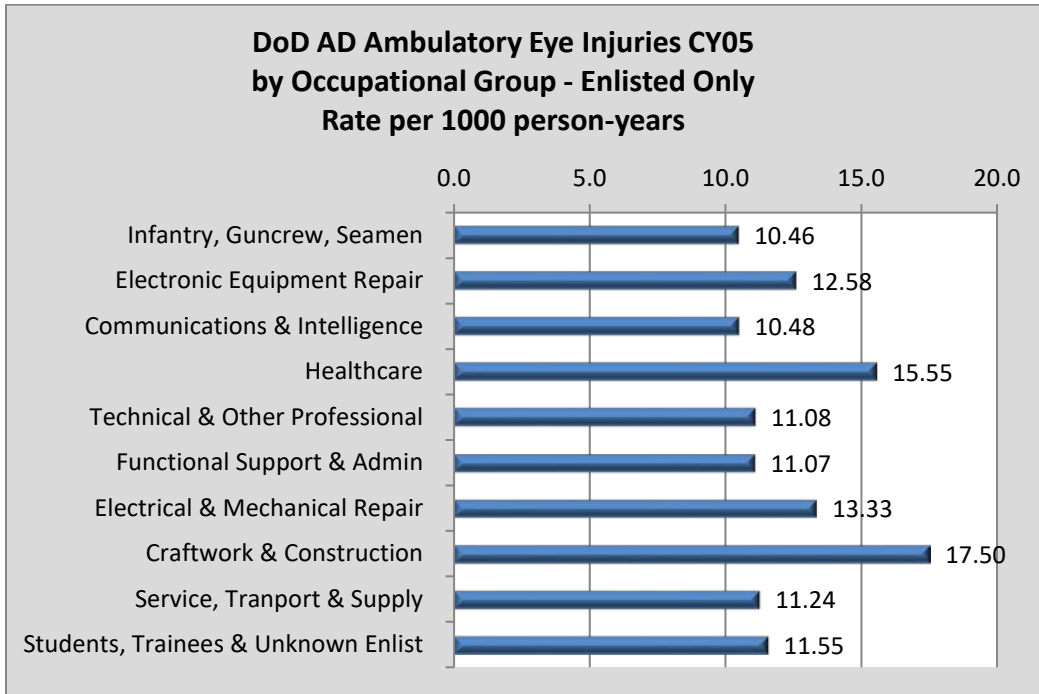
Please note the difference in scale between Ambulatory and Hospitalized graphs



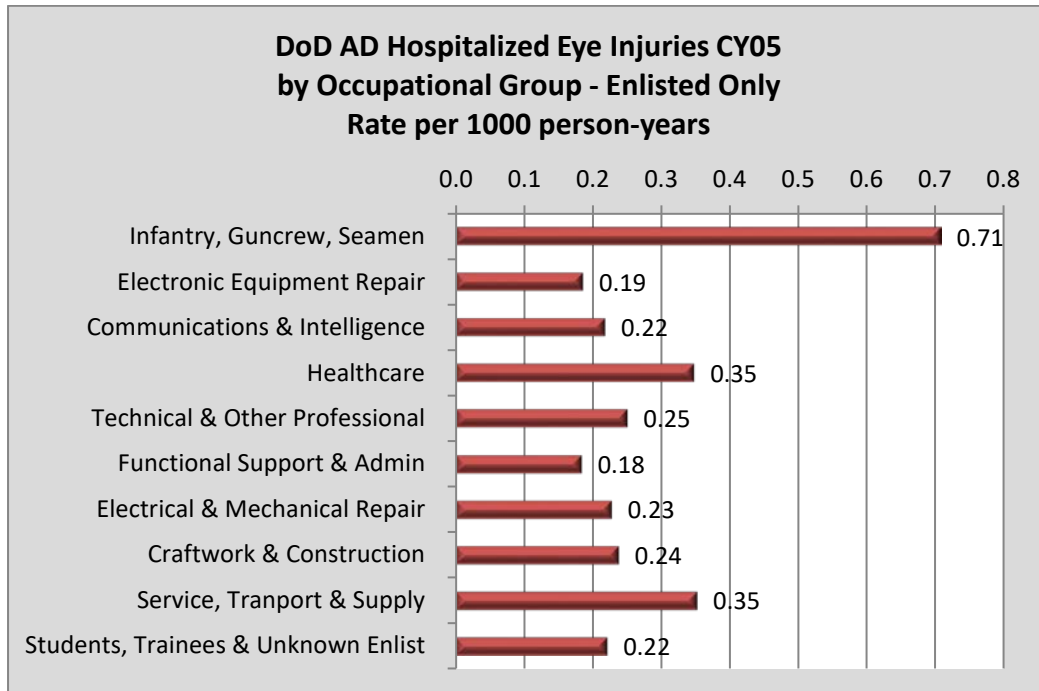
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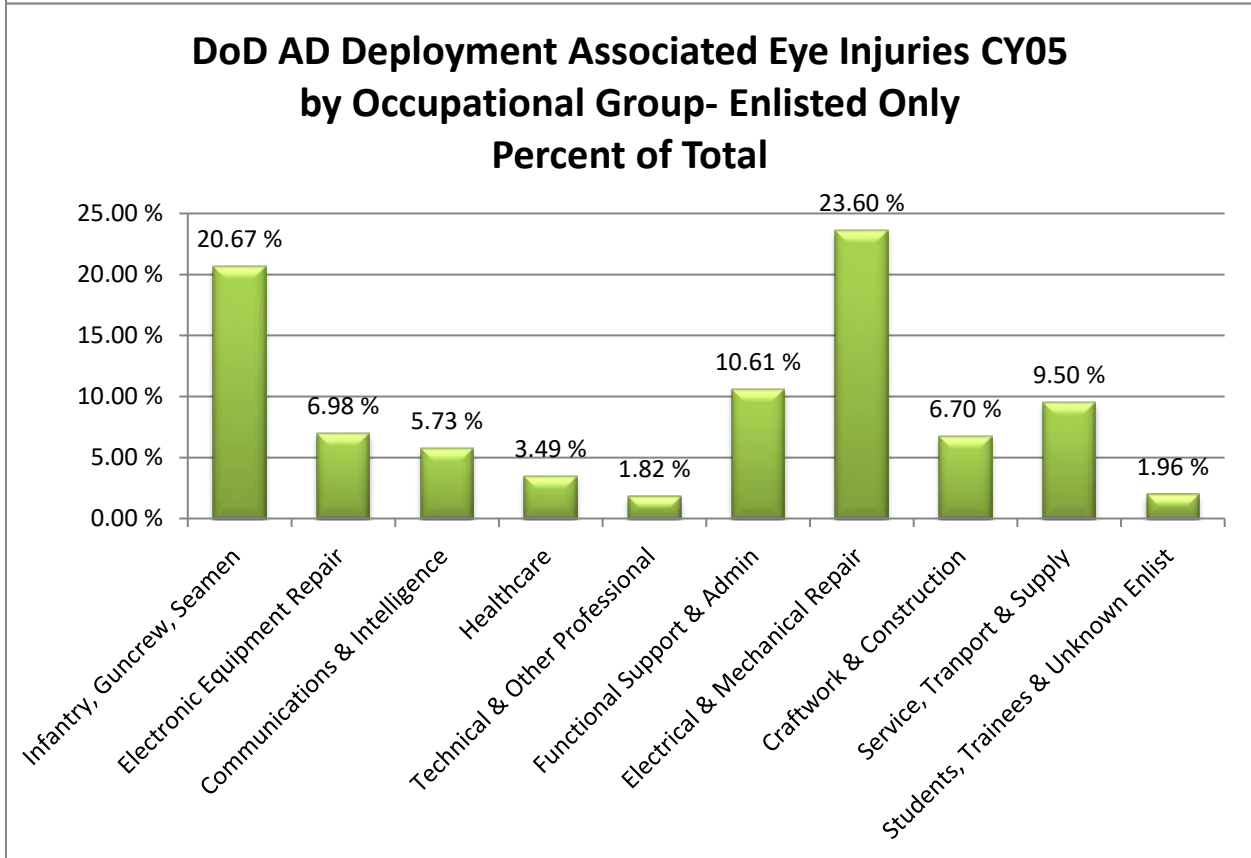
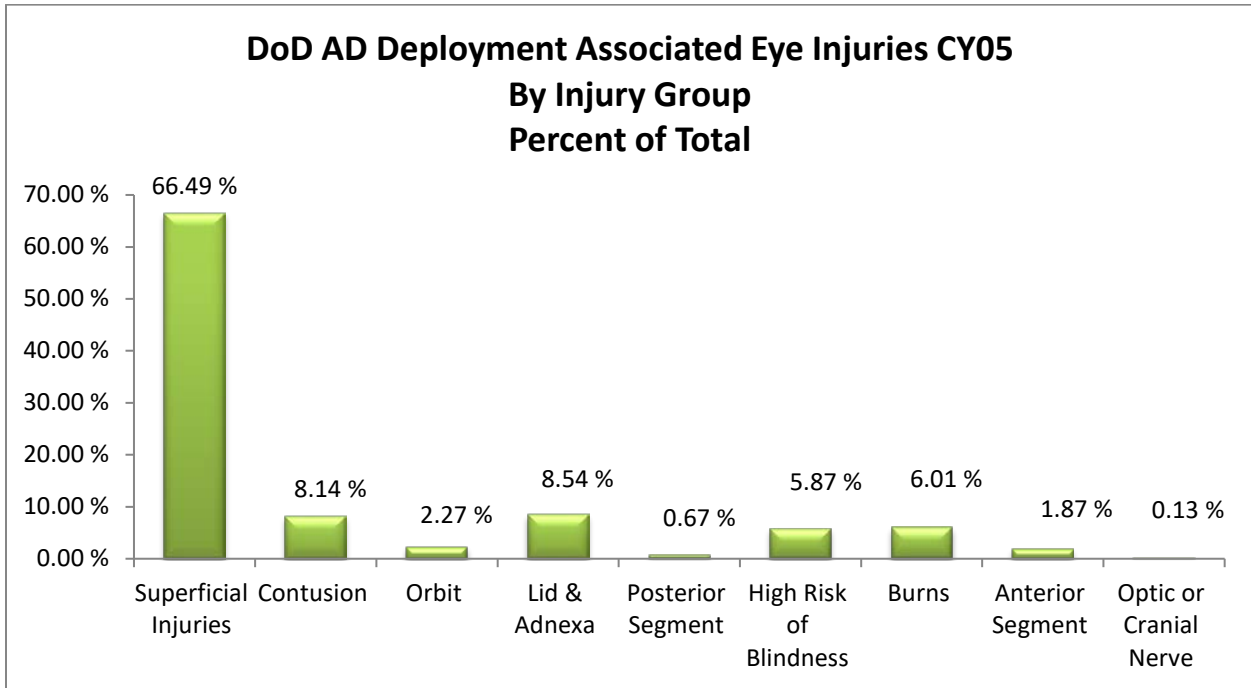
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	2005											
	Ambulatory MTF Visits				Deployment-Associated Healthcare				Hospitalizations			
	Primary		All Diagnoses		Primary		All Diagnoses		Primary		All Diagnoses	
	Count	Rate ¹	Count	Rate	Count	% total ³	Count	% total ³	Count	Rate	Count	Rate
ALL ACTIVE COMPONENT												
Total	14,824	10.47	17,133	12.10	683	100.00	716	100.00	121	0.09	417	0.29
Superficial Injuries	11,513	8.13	12,837	9.07	478	67.32	498	66.49	11	0.01	57	0.04
Contusion	1,715	1.22	2,162	1.54	56	7.89	61	8.14	38	0.03	108	0.08
Orbit	537	0.38	732	0.52	16	2.25	17	2.27	74	0.05	211	0.15
Lid & Adnexa	752	0.53	856	0.61	60	8.45	64	8.54	26	0.02	80	0.06
Posterior Segment	439	0.31	698	0.49	2	0.28	5	0.67	20	0.01	37	0.03
High Risk of Blindness	316	0.22	359	0.25	39	5.49	44	5.87	43	0.03	70	0.05
Burns	342	0.24	387	0.27	44	6.20	45	6.01	10	0.01	25	0.02
Anterior Segment	196	0.14	261	0.18	14	1.97	14	1.87	4	0.00	5	0.00
Optic or Cranial Nerve	35	0.02	64	0.05	1	0.14	1	0.13	6	0.00	9	0.01
Male	12,592	10.41	14,585	12.05	603	88.29	634	88.55	115	0.10	388	0.32
Female	2,232	10.85	2,548	12.39	80	11.71	82	11.45	6	0.03	29	0.14
War	10	0.01	22	0.02	not assessed ²				32	0.02	85	0.06
Guns & Explosives	111	0.08	125	0.09					54	0.04	129	0.09
Sports	233	0.16	261	0.18					22	0.02	27	0.02
Machinery & Tools	1,215	0.86	1,280	0.90					16	0.01	21	0.01
Land transport	68	0.05	109	0.08					9	0.01	54	0.04
Other transport	11	0.01	15	0.01					1	0.00	6	0.00
Slips, Trips & Falls	682	0.48	753	0.53					9	0.01	22	0.02
Fighting, Assault & Horseplay	241	0.17	349	0.25	25	0.02	55	0.04				
Other & Unknown Causes	13,274	9.38	15,442	10.91	64	0.05	203	0.14				
ENLISTED (all diagnoses combined)												
Enlisted	12,355	10.45	14,300	12.10	620	90.78	652	91.06	114	0.10	384	0.32
<20	873	6.70	1,047	8.03	33	4.83	34	4.75	13	0.10	35	0.27
20-24	4,595	9.84	5,388	11.54	315	46.12	329	45.95	62	0.13	210	0.45
25-29	2,813	11.83	3,252	13.67	128	18.74	135	18.85	19	0.08	65	0.27
30-34	1,707	11.28	1,928	12.74	80	11.71	85	11.87	11	0.07	45	0.30
35-39	1,408	11.49	1,588	12.96	43	6.30	47	6.56	6	0.05	13	0.11
>=40	959	13.15	1,097	15.05	21	3.07	22	3.07	3	0.04	16	0.22
E0-E4	6,146	10.13	7,216	11.89	405	59.30	422	58.94	80	0.13	263	0.43
E5-E9	6,209	10.79	7,084	12.32	215	31.48	230	32.12	34	0.06	121	0.21
Infantry, Guncrew, Seamen	1,905	8.76	2,275	10.46	137	20.06	148	20.67	44	0.20	154	0.71
Electronic Equipment Repair	1,120	10.94	1,287	12.58	49	7.17	50	6.98	8	0.08	19	0.19
Communications & Intelligence	990	8.98	1,156	10.48	37	5.42	41	5.73	10	0.09	24	0.22
Healthcare	1,086	13.50	1,251	15.55	23	3.37	25	3.49	11	0.14	28	0.35
Technical & Other Professional	349	9.71	398	11.08	10	1.46	13	1.82	3	0.08	9	0.25
Functional Support & Admin	1,765	9.52	2,052	11.07	74	10.83	76	10.61	5	0.03	34	0.18
Electrical & Mechanical Repair	2,877	11.68	3,284	13.33	165	24.16	169	23.60	22	0.09	56	0.23
Craftwork & Construction	740	15.99	810	17.50	45	6.59	48	6.70	1	0.02	11	0.24
Service, Transport & Supply	1,037	9.61	1,212	11.24	67	9.81	68	9.50	8	0.07	38	0.35
Students, Trainees & Unknown Enlist	486	9.76	575	11.55	13	1.90	14	1.96	2	0.04	11	0.22
Army	3,910	9.64	4,705	11.61	321	47.00	341	47.63	48	0.12	177	0.44
Navy	3,657	11.98	4,055	13.29	184	26.94	186	25.98	18	0.06	69	0.23
Air Force	2,900	10.35	3,351	11.96	94	13.76	100	13.97	19	0.07	39	0.14
Marine Corps	1,473	9.24	1,725	10.82	21	3.07	25	3.49	27	0.17	94	0.59
Coast Guard	415	13.11	464	14.65	0	0.00	0	0.00	2	0.06	5	0.16
OFFICER (all diagnoses combined)												
Officer	2,469	10.57	2,833	12.13	63	9.22	64	8.94	7	0.03	33	0.14
<20	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
20-24	209	8.19	240	9.41	6	0.88	6	0.84	1	0.04	7	0.27
25-29	478	9.16	547	10.48	18	2.64	18	2.51	2	0.04	8	0.15
30-34	492	9.69	564	11.11	14	2.05	14	1.96	1	0.02	8	0.16
35-39	540	11.63	614	13.23	10	1.46	11	1.54	0	0.00	4	0.09
>=40	750	12.78	868	14.79	15	2.20	15	2.09	3	0.05	6	0.10
O0-O3,W0-W3	1,464	10.19	1,677	11.67	44	6.44	45	6.28	4	0.03	27	0.19
O4-O10,W4-W5	1,005	11.17	1,156	12.85	19	2.78	19	2.65	3	0.03	6	0.07
General/Flag Ofc & Executives	22	9.62	27	11.81	0	0.00	0	0.00	1	0.44	1	0.44
Tactical Operations Off.	878	10.75	980	12.00	25	3.66	25	3.49	2	0.02	14	0.17
Intelligence Off.	111	9.09	124	10.15	2	0.29	2	0.28	0	0.00	1	0.08
Engineering & Maintenance Off.	382	11.48	442	13.28	13	1.90	13	1.82	0	0.00	1	0.03
Healthcare Off.	405	11.46	475	13.44	4	0.59	4	0.56	1	0.03	1	0.03
Scientists & Professional Off.	122	9.58	143	11.22	0	0.00	0	0.00	0	0.00	2	0.16
Administrative Off.	171	10.92	209	13.35	6	0.88	6	0.84	0	0.00	2	0.13
Supply & Logistics Off.	192	10.00	228	11.87	8	1.17	9	1.26	1	0.05	3	0.16
Students, Trainees & Unknown Off.	186	8.75	205	9.65	5	0.73	5	0.70	2	0.09	8	0.38
Army	683	8.48	850	10.56	48	7.03	48	6.70	2	0.02	16	0.20
Navy	783	14.70	851	15.98	6	0.88	6	0.84	0	0.00	4	0.08
Air Force	721	9.85	831	11.35	9	1.32	10	1.40	2	0.03	7	0.10
Marine Corps	173	9.17	186	9.85	0	0.00	0	0.00	3	0.16	6	0.32
Coast Guard	109	14.03	115	14.80	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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