

**US DEPARTMENT OF
DEFENSE (DoD)
ACTIVE DUTY
EYE INJURY SUMMARY
CALENDAR YEAR 2002**

Approved for public release, distribution unlimited

2013



CY 2002 DEPARTMENT OF DEFENSE (DOD) COMBINED ACTIVE DUTY (AD) EYE INJURY 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 data not available from 2000-2004](#)
- 6) [2002 Combined DoD Eye Injury complete statistics](#)



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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>.

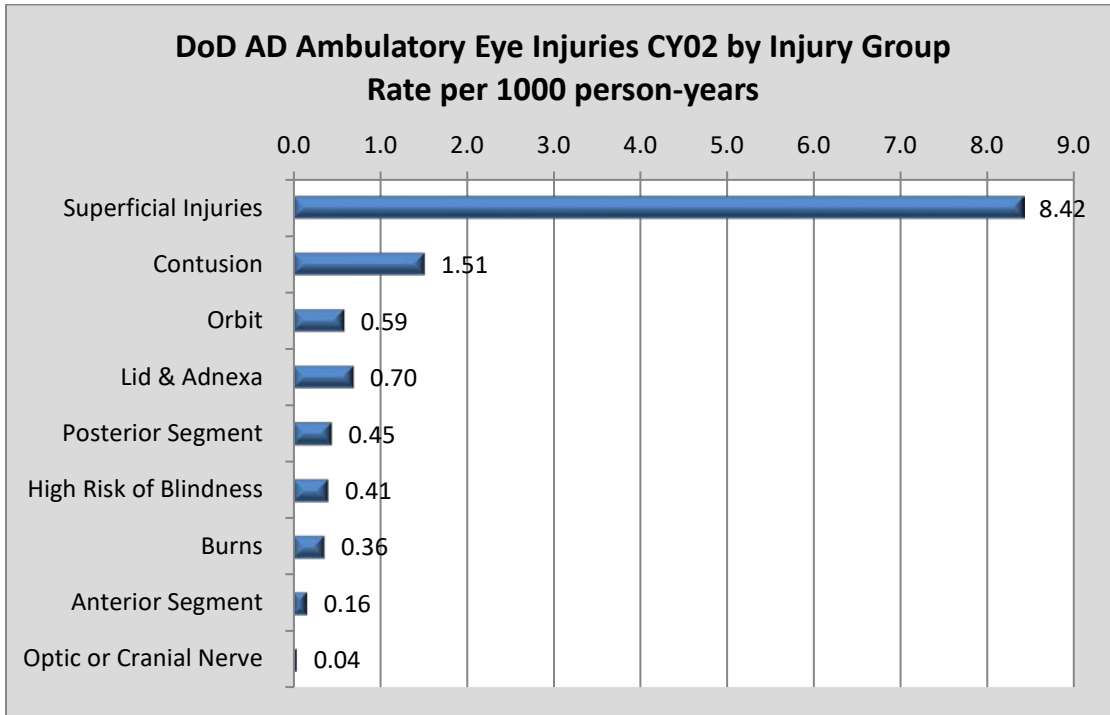
- 1) **Superficial:** all 918 series codes (superficial injury of eye and adnexa) and all 930 series codes (foreign body on external eye).
- 2) **Contusion:** all 921 series codes (contusion of eye and adnexa).
- 3) **Orbit:** All 802 series codes (fracture of face bones), 870.3 and 870.4 (penetrating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

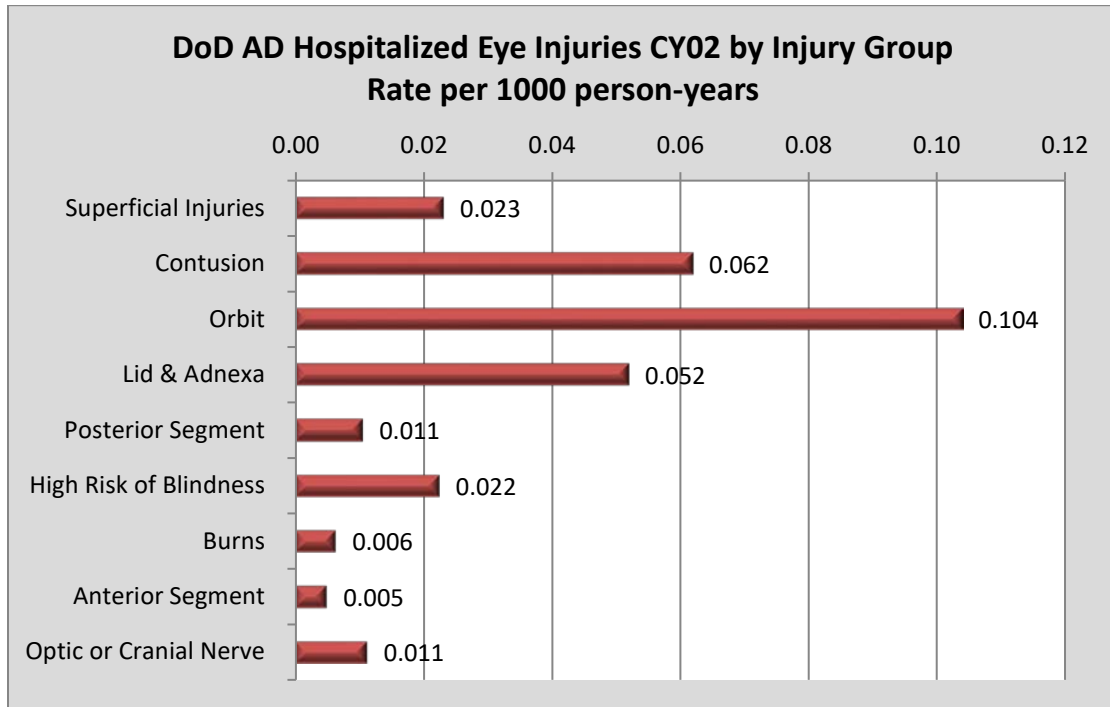
[Return to Introduction Page](#)



**CY 2002 DEPARTMENT OF DEFENSE (DOD) COMBINED ACTIVE DUTY (AD)
EYE INJURY SUMMARY**



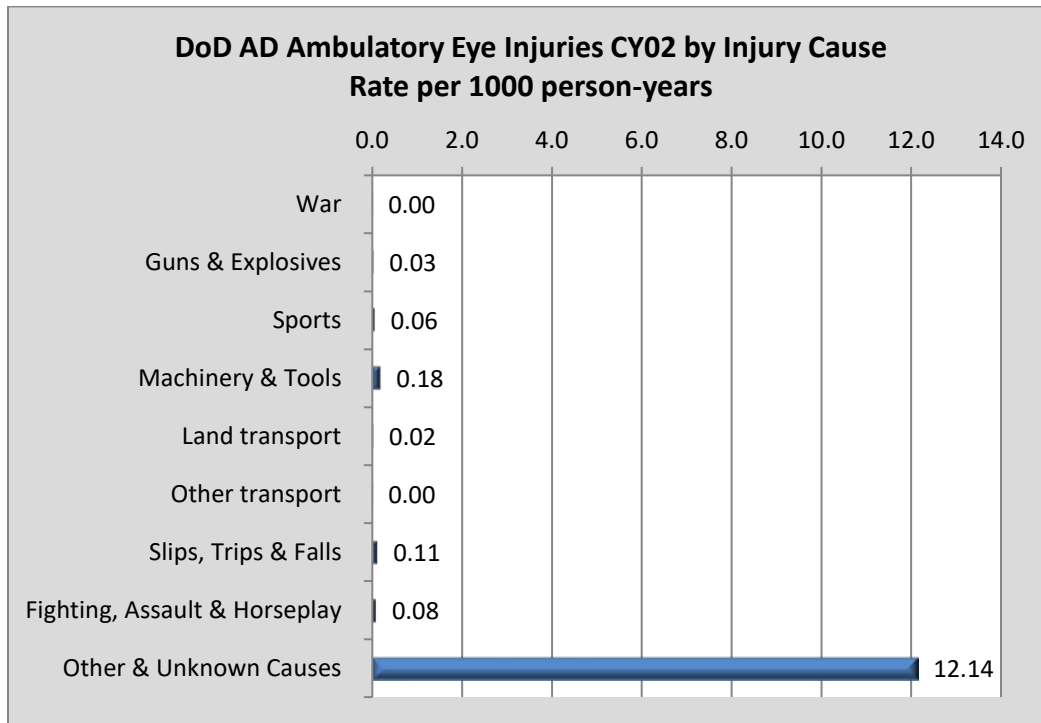
Please note the difference in scale between Ambulatory and Hospitalized graphs



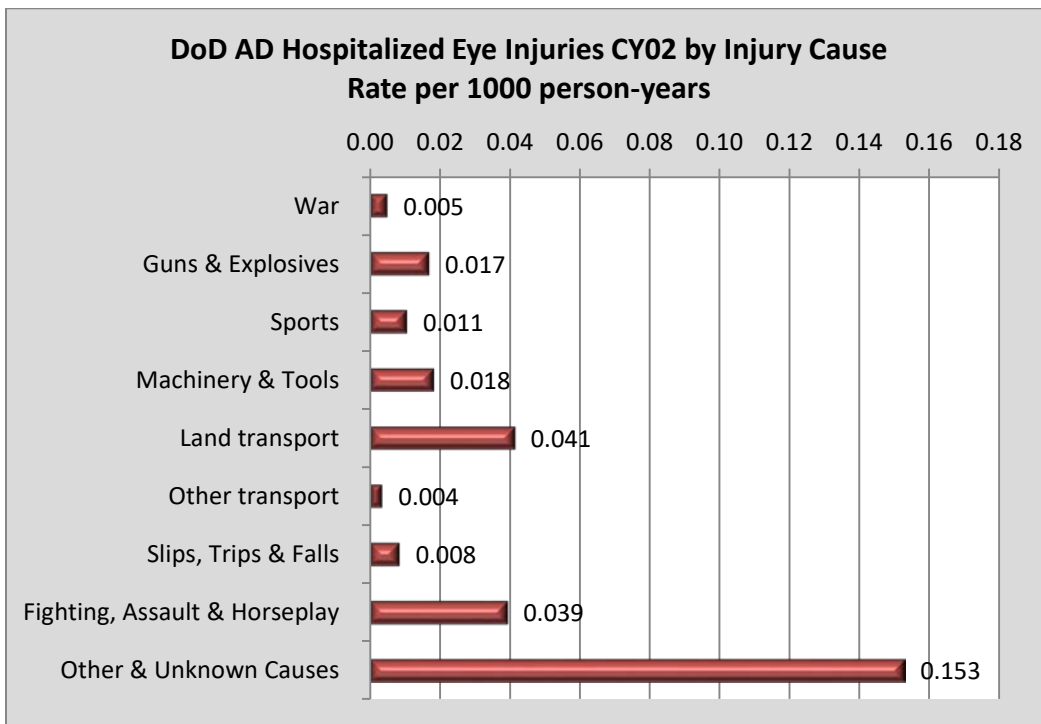
[Return to Introduction Page](#)



**CY 2002 DEPARTMENT OF DEFENSE (DOD) COMBINED ACTIVE DUTY (AD)
EYE INJURY SUMMARY**



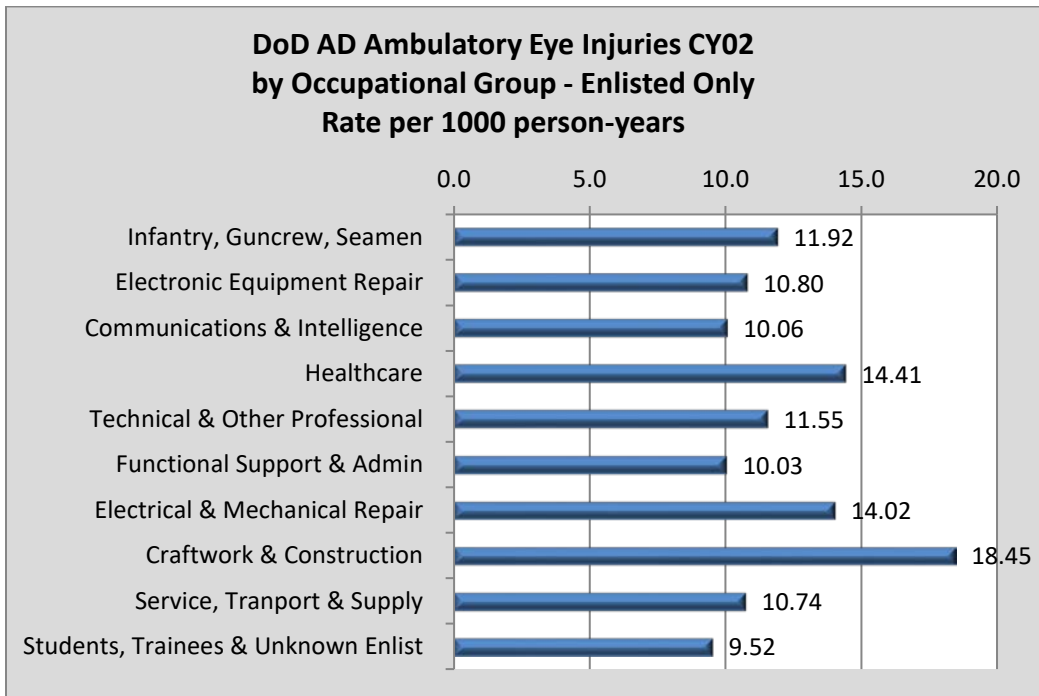
Please note the difference in scale between Ambulatory and Hospitalized graphs



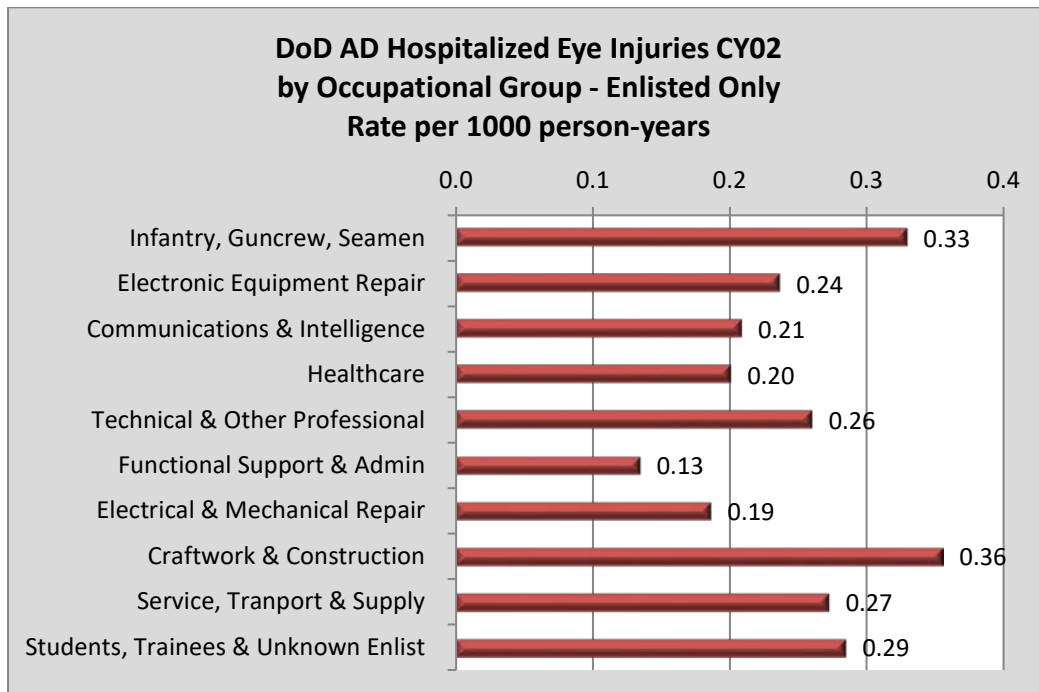
[Return to Introduction Page](#)



**CY 2002 DEPARTMENT OF DEFENSE (DOD) COMBINED ACTIVE DUTY (AD)
EYE INJURY SUMMARY**



Please note the difference in scale between Ambulatory and Hospitalized graphs



[Return to Introduction Page](#)



CY 2002 DEPARTMENT OF DEFENSE (DOD) COMBINED ACTIVE DUTY (AD) EYE INJURY SUMMARY

	2002											
	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	15,019	10.53	16,819	11.80	-	-	-	-	102	0.07	301	0.21
Superficial Injuries	11,127	7.80	12,004	8.42	-	-	-	-	13	0.01	33	0.02
Contusion	1,759	1.24	2,150	1.51	-	-	-	-	43	0.03	88	0.06
Orbit	648	0.46	838	0.59	-	-	-	-	54	0.04	148	0.10
Lid & Adnexa	865	0.61	990	0.70	-	-	-	-	20	0.01	74	0.05
Posterior Segment	451	0.32	635	0.45	-	-	-	-	10	0.01	15	0.01
High Risk of Blindness	501	0.35	578	0.41	-	-	-	-	27	0.02	32	0.02
Burns	479	0.34	515	0.36	-	-	-	-	6	0.00	9	0.01
Anterior Segment	191	0.13	231	0.16	-	-	-	-	6	0.00	7	0.00
Optic or Cranial Nerve	42	0.03	64	0.04	-	-	-	-	3	0.00	16	0.01
Male	12,921	10.64	14,461	11.91	-	-	-	-	98	0.08	281	0.23
Female	2,098	9.91	2,358	11.14	-	-	-	-	4	0.02	20	0.09
War	0	0.00	1	0.00	not assessed ²				7	0.00	7	0.00
Guns & Explosives	34	0.02	37	0.03					15	0.01	24	0.02
Sports	68	0.05	81	0.06					13	0.01	15	0.01
Machinery & Tools	253	0.18	263	0.18					24	0.02	26	0.02
Land transport	23	0.02	30	0.02					14	0.01	59	0.04
Other transport	3	0.00	5	0.00					0	0.00	5	0.00
Slips, Trips & Falls	144	0.10	161	0.11					5	0.00	12	0.01
Fighting, Assault & Horseplay	80	0.06	121	0.08					28	0.02	56	0.04
Other & Unknown Causes	15,458	10.84	17,306	12.14					76	0.05	218	0.15
ENLISTED (all diagnoses combined)												
Enlisted	12,781	10.67	14,312	11.95	-	-	-	-	96	0.08	278	0.23
<20	1,186	7.31	1,342	8.28	-	-	-	-	10	0.06	38	0.23
20-24	5,144	11.42	5,841	12.97	-	-	-	-	53	0.12	150	0.33
25-29	2,408	11.10	2,672	12.32	-	-	-	-	14	0.06	41	0.19
30-34	1,635	10.50	1,791	11.50	-	-	-	-	11	0.07	23	0.15
35-39	1,496	10.37	1,636	11.35	-	-	-	-	6	0.04	18	0.12
>=40	912	13.27	1,030	14.99	-	-	-	-	2	0.03	8	0.12
E0-E4	6,922	10.94	7,861	12.42	-	-	-	-	66	0.10	197	0.31
E5-E9	5,859	10.37	6,451	11.41	-	-	-	-	30	0.05	81	0.14
Infantry, Guncrew, Seamen	2,088	10.43	2,385	11.92	-	-	-	-	27	0.13	66	0.33
Electronic Equipment Repair	1,103	9.68	1,231	10.80	-	-	-	-	7	0.06	27	0.24
Communications & Intelligence	986	8.95	1,108	10.06	-	-	-	-	8	0.07	23	0.21
Healthcare	1,041	13.08	1,147	14.41	-	-	-	-	7	0.09	16	0.20
Technical & Other Professional	357	10.33	399	11.55	-	-	-	-	3	0.09	9	0.26
Functional Support & Admin	1,731	8.98	1,934	10.03	-	-	-	-	10	0.05	26	0.13
Electrical & Mechanical Repair	3,120	12.66	3,457	14.02	-	-	-	-	16	0.06	46	0.19
Craftwork & Construction	798	16.72	881	18.45	-	-	-	-	7	0.15	17	0.36
Service, Transport & Supply	974	9.49	1,102	10.74	-	-	-	-	4	0.04	28	0.27
Students, Trainees & Unknown Enlist	583	8.31	668	9.52	-	-	-	-	7	0.10	20	0.29
Army	4,233	10.51	4,756	11.80	-	-	-	-	49	0.12	111	0.28
Navy	3,601	11.16	3,963	12.28	-	-	-	-	27	0.08	76	0.24
Air Force	3,105	10.73	3,514	12.14	-	-	-	-	10	0.03	39	0.13
Marine Corps	1,472	9.58	1,667	10.84	-	-	-	-	9	0.06	47	0.31
Coast Guard	370	12.59	412	14.02	-	-	-	-	1	0.03	5	0.17
OFFICER (all diagnoses combined)												
Officer	2,238	9.83	2,507	11.01	-	-	-	-	6	0.03	23	0.10
<20	0	0.00	0	0.00	-	-	-	-	0	0.00	0	0.00
20-24	170	7.08	193	8.04	-	-	-	-	1	0.04	2	0.08
25-29	425	8.34	480	9.42	-	-	-	-	1	0.02	3	0.06
30-34	466	9.34	515	10.32	-	-	-	-	1	0.02	9	0.18
35-39	475	10.33	526	11.44	-	-	-	-	0	0.00	3	0.07
>=40	702	12.33	793	13.93	-	-	-	-	3	0.05	6	0.11
O0-O3,W0-W3	1,288	9.29	1,438	10.37	-	-	-	-	3	0.02	15	0.11
O4-O10,W4-W5	950	10.66	1,069	12.00	-	-	-	-	3	0.03	8	0.09
General/Flag Ofc & Executives	19	9.78	23	11.84	-	-	-	-	0	0.00	0	0.00
Tactical Operations Off.	832	10.15	908	11.08	-	-	-	-	1	0.01	7	0.09
Intelligence Off.	94	8.14	107	9.26	-	-	-	-	0	0.00	2	0.17
Engineering & Maintenance Off.	335	10.59	376	11.88	-	-	-	-	0	0.00	2	0.06
Healthcare Off.	382	10.27	438	11.78	-	-	-	-	2	0.05	6	0.16
Scientists & Professional Off.	93	8.52	112	10.26	-	-	-	-	0	0.00	0	0.00
Administrative Off.	128	8.76	146	9.99	-	-	-	-	1	0.07	3	0.21
Supply & Logistics Off.	180	9.03	204	10.24	-	-	-	-	2	0.10	3	0.15
Students, Trainees & Unknown Off.	175	9.71	193	10.70	-	-	-	-	0	0.00	0	0.00
Army	589	7.60	661	8.53	-	-	-	-	2	0.03	15	0.19
Navy	784	14.39	841	15.44	-	-	-	-	1	0.02	1	0.02
Air Force	603	8.56	715	10.15	-	-	-	-	2	0.03	5	0.07
Marine Corps	192	10.50	215	11.76	-	-	-	-	0	0.00	1	0.05
Coast Guard	70	9.88	75	10.58	-	-	-	-	1	0.14	1	0.14

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](#)



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