

Head Injuries from Domestic Violence: A National Picture, 2018–2022

National estimates reveal the hidden burden of head trauma among survivors presenting to U.S. emergency departments.

Key messages

- Nearly 900,000 emergency department visits for DV/IPV occurred over the study period; more than half involve injuries to the head, face, or neck.
- Females aged 20–34 face the highest risk, with head injury rates exceeding 200 per 100,000 five to seven times higher than those of males of the same age.
- Most survivors are treated and released, but injuries often include internal trauma, fractures, and concussions.
- Because head trauma can lead to long-term disability, law enforcement, attorneys, and social services must recognize its prevalence and context.
- These findings highlight the need for urgent policy, clinical, and prevention strategies that prioritize traumatic brain injury in DV/IPV response.

Background and context

Domestic and intimate partner violence is a major public health and moral crisis, affecting millions of individuals annually. While the physical, psychological, and economic harms of DV/IPV are well documented, the role of traumatic head injury has been under-recognized in both clinical practice and policy debates. Head, face, and neck injuries carry lifelong consequences, from concussion and chronic pain to cognitive and psychological impairment. Policymakers, healthcare leaders, and advocates need to act now to integrate head injury surveillance and care into DV/IPV response strategies, given the high prevalence and disproportionate burden among women, particularly those of reproductive age.

Details of the research

This analysis used nationally representative data from the National Electronic Injury Surveillance System – All Injury Program (NEISS-AIP), covering the years 2018–2022.

Summary of the research questions addressed here:

- RQ1: What is the national burden of DV/IPV-related emergency department visits, and what proportion involves head and facial injuries?
- RQ2: What is the magnitude and distribution of head and facial injuries among DV/IPV survivors?
- RQ3: How do injury patterns and risks vary across age and sex groups?

RQ1: What is the national burden of DV/IPV-related emergency department visits, and what proportion involves head and facial injuries?

- From Table 1, DV/IPV accounted for an estimated 888,279 ED visits nationally during the study period (95% CI: 630,834–1,145,724).
- Of these, 517,769 cases (58.3%) involved head, face, or neck injuries, while 370,510 (41.7%) involved non-head injuries.
- This means that nearly 3 in 5 DV-related ED visits involve head trauma, underscoring the centrality of craniofacial injuries in the acute health burden of IPV survivors.

RQ2: What is the magnitude and distribution of head and facial injuries among DV/IPV survivors?

• Head and/or face injuries are greater among women survivors of domestic violence (81.9%, 424,358 cases; 95% CI: 303,471–545,245), though men also account for nearly one in five cases (18.0%, 93,392 cases; 95% CI: 56,642–130,141).

- The age distribution (Table 1) highlights concentration of head and facial injuries in young to mid-adult survivors: Ages 20–26: 195,068 cases (22.0%); Ages 27–34: 258,887 cases (29.2%), and Ages 35–44: 207,678 cases (23.4%).
 - Together, these three groups account for ~75% of all DV-related head injuries, indicating a heavy burden in early to mid-adulthood.
- Most survivors of head injuries from domestic violence are treated and released from the emergency department (87%), but the injuries themselves are often severe.
- Internal injuries (29%), contusions and abrasions (28%), and lacerations (17%) are the leading diagnoses, with nearly one in ten cases involving fractures.
- Most incidents occurred at home (87%+) and were due to being struck or hit (92.2% of primary causes).

RQ3: How do injury patterns and risks vary across age and sex groups?

Table 2 shows striking disparities in rates per 100,000 population (Figure 1):

- For women, the highest risk is in young adulthood between the ages of 20 and 34 (20–26 years: 223 per 100,000; 27–34 years: 233 per 100,000). These rates are more than 10 times higher than for women aged 45 and older.
- For men, rates are consistently lower than for women, but peak at ages 27 to 44 (27–34 years: 47 per 100,000; 35–44 years: 36 per 100,000). Risk is substantially reduced in older age groups, similar to women.
- When aggregated, female survivors experience a head injury rate nearly 5 times higher than males (97.6 vs. 20.4 per 100,000).
- This sex disparity is evident across nearly all age categories but is most pronounced in the 20–34-year range, where female rates exceed male rates by 5–7 fold.

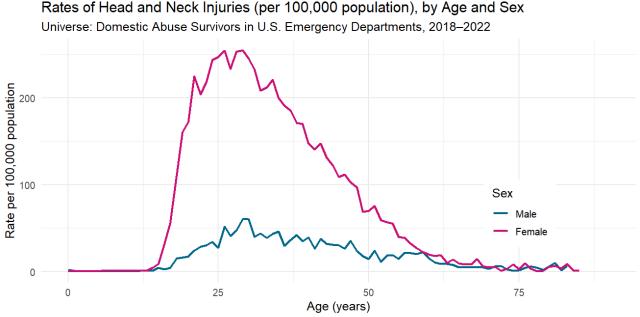
Implications of the research

These findings confirm that head injury is not incidental, but central to the lived experience of DV/IPV survivors. For policymakers, this means that strategies to address domestic violence must explicitly consider traumatic brain injury and its long-term consequences.

Prevention and intervention programs must be resourced not only to reduce the incidence of violence, but also to ensure that survivors receive appropriate screening, treatment, and follow-up care for head trauma.

- At a systems level, the evidence points to the need for integrated approaches: linking emergency departments, social services, and community-based DV advocates to identify and respond to survivors at the highest risk.
- Because most DV-related head injuries are treated and released, survivors may leave the hospital without comprehensive screening, documentation, or referral for brain injury.

 Policymakers and practitioners — including hospitals, attorneys, and victim service agencies — should consider policies that require standardized screening and referral pathways so that injuries are not missed and survivors can access appropriate medical, legal, and social supports.



Source: National Electronic Injury Surveillance System - All Injury Program (NEISS-AIP), 2018-2022; U.S. Census Bureau Population Estimates.

Figure 1. Rate of Injuries to Head & Neck Among Survivors of Domestic Abuse by Age and Sex

Recommendations

- Integrate head injury screening into all DV/IPV protocols in healthcare, law enforcement, and social services.
- Prioritize resources for women aged 20–34, the demographic at with the highest risk of DV-related head trauma.
- Support cross-sector partnerships (healthcare, social work, criminal justice, advocacy groups) to ensure survivors with head injuries receive both immediate treatment and long-term support.

References and further reading

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About us

The Investigating Spatial Structures in Urban Environments (ISSUE) Lab at The Ohio State University conducts cutting-edge research at the intersection of public health, law, and social work, with a focus on violence-related harm and structural inequality. Using advanced statistical and geospatial methods, we translate research into policy, practice, and prevention strategies to protect vulnerable populations and promote equity.

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Methodology

This study analyzed data from the National Electronic Injury Surveillance System – All Injury Program (NEISS-AIP), a nationally representative surveillance system maintained by the U.S. Consumer Product Safety Commission and the Centers for Disease Control and Prevention. NEISS-AIP collects detailed information on injury-related visits from a stratified probability sample of U.S. hospital emergency departments, allowing weighted national estimates. We restricted the sample to cases of physical assault and sexual assault explicitly identified as related to an intimate partner between 2018 and 2022. Head, face, neck, and related injuries to the facial area were determined using NEISS body part codes. Survey weights were applied to calculate national counts and proportions, and U.S. Census denominators were used to produce population-based rates per 100,000 by age and sex. All analyses accounted for the NEISS complex survey design to ensure nationally valid estimates. Because NEISS-AIP is nationally representative, these findings reflect the U.S. population of DV/IPV survivors treated in EDs, not just a subset of hospitals



Table 1. National estimates of DV-related ED visits and head injury characteristics, 2018–2022.

Domain	Category	Unweighted Count	Weighted Count	Proportion	95% CI Lower	95% CI Upper
Population Estimates	of Domestic Violence Survivo	or Injuries				
Intent	Assault	17,018	888,279	100%	630,834	1,145,724
Body Part	Head Injury	10,004	517,769	58.29%	362,601	672,936
	Non-Head Injury	7,014	370,510	41.71%	265,142	475,877
Characteristics of Dor	nestic Violence Survivors wit	h Head Injury				
Sex	Male	1,858	93,392	18.04%	56,642	130,141
	Female	8,145	424,358	81.96%	303,471	545,245
Age Group (Recode)	<12	41	1,145	0.13%	577	1,714
	13–19	1,195	46,179	5.20%	34,183	58,176
	20–26	3,859	195,068	21.97%	139,277	250,859
	27–34	4,835	258,887	29.16%	178,330	339,444

	35–44	3,837	207,678	23.39%	145,583	269,772
	45–54	2,005	111,258	12.53%	78,472	144,044
	55–64	946	51,627	5.82%	36,829	66,424
	65+	289	15,963	1.80%	11,813	20,113
Treatment Year	2018	1,879	110,215	21.29%	74,779	145,652
	2019	1,825	105,320	20.34%	70,874	139,767
	2020	1,859	102,166	19.73%	67,226	137,106
	2021	1,953	99,552	19.23%	63,239	135,865
	2022	2,487	100,497	19.41%	75,624	125,370
Treatment Month	January	843	42,408	8.19%	29,408	55,408
	February	790	38,585	7.45%	27,774	49,396
	March	839	42,099	8.13%	29,238	54,961
	April	790	40,718	7.86%	28,118	53,318
	May	882	46,020	8.89%	30,685	61,355
	June	915	45,437	8.78%	31,508	59,365
	July	983	53,186	10.27%	36,102	70,270
	August	837	45,838	8.85%	30,413	61,262

	September	811	42,406	8.19%	29,677	55,134
	October	822	44,209	8.54%	29,924	58,495
	November	754	38,282	7.39%	26,647	49,917
	December	737	38,562	7.45%	26,501	50,623
Disposition	Treated/released	8,766	452,040	87.31%	326,836	577,243
	Transfd/released	130	7,524	1.45%	4,692	10,356
	Hospitalized	465	22,626	4.37%	13,030	32,222
	Observation	142	7,116	1.37%	217	14,015
	AMA/LWBS	500	28,444	5.49%	8,017	48,871
Diagnosis	Burn scald	19	500	0.10%	117	884
	Burn chemical	28	1,285	0.25%	653	1,917
	Amputation	3	70	0.01%	0	175
	Burn thermal	6	381	0.07%	0	839
	Concussion	403	21,469	4.15%	15,873	27,066
	Contusn abr	2,699	144,917	27.99%	101,913	187,922
	Crushing	1	26	0.01%	0	77
	Dislocation	3	171	0.03%	0	418

	Foreign body	3	163	0.03%	0	369
	Fracture	918	47,090	9.10%	32,072	62,107
	Hematoma	295	13,677	2.64%	7,170	20,185
	Laceration	1,724	89,934	17.37%	51,697	128,170
	Dental injury	96	4,576	0.88%	1,776	7,375
	Nerve damage	1	113	0.02%	0	333
	Internal injury	2,961	149,718	28.92%	105,067	194,369
	Puncture	48	2,241	0.43%	844	3,637
	Strain/sprain	234	13,936	2.69%	10,190	17,682
	Haemorrhage	38	1,740	0.34%	864	2,617
	Other	495	24,380	4.71%	15,001	33,759
	Avulsion	7	363	0.07%	0	750
	Derma/conjunct	21	999	0.19%	205	1,794
Reason	Altercation	2,326	123,279	88.27%	75,832	170,726
	Robbery/burglary	14	828	0.59%	259	1,397
	Drug-related	3	68	0.05%	0	166
	Sexual assault	104	5,248	3.76%	2,149	8,346

	Oth specified	210	10,238	7.33%	6,869	13,608
Location	Home	293	15,454	5.84%	9,892	21,015
	Street	412	22,158	8.37%	14,823	29,493
	Public	2	224	0.08%	0	533
	Mobile	3	145	0.05%	0	345
	Industry	9	509	0.19%	109	909
	School	14	769	0.29%	226	1,312
	Sports	29	1,337	0.15%	721	1,953
Race/Ethnicity	White Nh	2,080	156,966	47.12%	104,227	209,705
	Black Nh	2,658	130,301	39.11%	42,432	218,170
	Hispanic	656	35,907	10.78%	12,221	59,594
	Asian Nh	58	3,290	0.99%	1,173	5,406
	Am Ind Nh	31	2,350	0.71%	330	4,370
	Other Nh	84	4,315	1.30%	219	8,412
Primary Cause	MV-occupant	59	2,914	0.56%	1,385	4,443
	Pedestrian	42	2,311	0.45%	1,196	3,425
	Oth transport	5	371	0.07%	19	722

	Fall	62	3,026	0.58%	1,733	4,319
	Struck by/ag	9,173	477,379	92.24%	337,379	617,380
	Cut/pierce	344	17,113	3.31%	8,236	25,990
	Overexertion	1	98	0.02%	0	290
	Fire/burn	80	3,430	0.66%	1,695	5,164
	Inhalatn/suff	48	2,497	0.48%	1,433	3,560
	Dog bite	1	24	0.00%	0	71
	Oth bite/sting	143	6,644	1.28%	3,669	9,619
	Firearm gunshot	33	1,316	0.25%	289	2,343
	BB/pellet gunshot	2	176	0.03%	0	418
	Oth specified	5	217	0.04%	0	521
Immediate Cause	MV-occupant	59	2,914	0.56%	1,385	4,443
	Pedestrian	42	2,311	0.45%	1,196	3,425
	Oth transport	5	371	0.07%	19	722
	Fall	728	40,589	7.84%	26,962	54,216
	Struck by/ag	8,440	435,954	84.24%	308,941	562,967
	Cut/pierce	371	18,661	3.61%	9,157	28,164

Ove	rerexertion	1	98	.02%	0	290
Fire	e/burn	84	3,856	0.75%	1,991	5,722
Poi	isoning	1	96	0.02%	0	284
Inh	nalatn/suff	70	3,468	0.67%	2,118	4,817
Dro	own/near drown	1	23	0.00%	0	69
Dog	og bite	1	24	0.00%	0	71
Oth	h bite/sting	155	7,421	1.43%	4,021	10,822
Fire	earm gunshot	34	1,323	0.26%	296	2,350
BB/	/pellet gunshot	3	272	0.05%	0	579
Oth	h specified	3	135	0.03%	0	330
Notes Estimates are only for known domains						

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Table 2. Head Injury Rates among DV Victims by Age and Sex based on Population Estimates

Female	·			
		Weighted Injuries	Population	Rate per 100,000
<12		90	16,954,135	0.53
13–19		23,859	44,545,699	53.56
20–26		101,816	45,636,970	223.10
27–34		125,892	54,102,237	232.69
35–44		103,370	64,049,818	161.39
45-54		48,683	60,780,416	80.10
55–64		15,584	64,855,543	24.03
65+		4,947	93,183,634	5.31
	Total	53,030	55,513,557	97.59
Male				
<12		151	17,293,881	0.87
13–19		2,856	40,029,499	7.13
20–26		14,580	47,914,629	30.43
27-34		26,306	56,107,939	46.88
35–44		23,455	65,628,873	35.74
45-54		13,436	61,239,335	21.94
55–64		9,475	62,568,333	15.14
65+		3,068	65,559,742	4.68
	Total	11,665	52,042,779	20.35