

Robotic Macroliability

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Machines acting in the physical world

Smart homes

Robots!

Drones

Automated vehicles

Connected vehicles

Robosurgery

Connected medical devices

Cyberphysical systems

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...An already dangerous world

10 Leading Causes of Injury Deaths by Age Group Highlighting Unintentional Injury Deaths, United States - 2014

Rank	Age Groups										Total
	<1	1-4	5-9	10-14	15-24	25-34	35-44	45-54	55-64	65+	
1	Unintentional Suffocation 991	Unintentional Drowning 388	Unintentional MV Traffic 345	Unintentional MV Traffic 384	Unintentional MV Traffic 6,831	Unintentional Poisoning 8,334	Unintentional Poisoning 8,116	Unintentional Poisoning 11,009	Unintentional Poisoning 7,013	Unintentional Fall 27,044	Unintentional Poisoning 47,037
2	Homicide Unspecified 119	Unintentional MV Traffic 293	Unintentional Drowning 125	Suicide Suffocation 225	Homicide Firearm 3,587	Unintentional MV Traffic 5,856	Unintentional MV Traffic 4,308	Unintentional MV Traffic 5,024	Unintentional MV Traffic 4,554	Unintentional MV Traffic 6,373	Unintentional MV Traffic 33,736
3	Homicide Other Spec, Classifiable 83	Homicide Unspecified 149	Unintentional Fire/Burn 80	Suicide Firearm 174	Unintentional Poisoning 3,492	Homicide Firearm 3,260	Suicide Firearm 2,830	Suicide Firearm 3,953	Suicide Firearm 3,910	Suicide Firearm 5,367	Unintentional Fall 31,959
4	Unintentional MV Traffic 61	Unintentional Suffocation 170	Homicide Firearm 88	Homicide Firearm 115	Suicide Firearm 2,270	Suicide Firearm 2,829	Suicide Suffocation 2,057	Suicide Suffocation 2,321	Unintentional Fall 2,558	Unintentional Unspecified 4,590	Suicide Firearm 21,334
5	Undetermined Suffocation 40	Unintentional Fire/Burn 117	Unintentional Other Land Transport 36	Unintentional Drowning 109	Suicide Suffocation 2,910	Suicide Suffocation 2,402	Homicide Firearm 1,835	Suicide Poisoning 1,795	Suicide Poisoning 1,529	Unintentional Suffocation 3,592	Suicide Suffocation 11,407
6	Unintentional Drowning 29	Unintentional Pedestrian Other 107	Unintentional Unspecified 34	Unintentional Fire/Burn 83	Unintentional Drowning 307	Suicide Poisoning 800	Suicide Poisoning 1,274	Unintentional Fall 1,349	Suicide Suffocation 1,809	Unintentional Poisoning 1,983	Homicide Firearm 10,948
7	Homicide Suffocation 26	Homicide Other Spec, Classifiable 73	Unintentional Homicide Other Land Transport 19	Unintentional Other Land Transport 81	Suicide Poisoning 363	Undetermined Poisoning 575	Undetermined Poisoning 637	Homicide Firearm 1,132	Unintentional Suffocation 698	Adverse Effects 1,554	Suicide Poisoning 6,808
8	Unintentional Natural Environment 17	Homicide Firearm 47	Unintentional Pedestrian, Other 18	Unintentional Suffocation 33	Homicide Cut/Pierce 314	Homicide Cut/Pierce 430	Unintentional Fall 404	Undetermined Poisoning 820	Undetermined Poisoning 639	Unintentional Fire/Steam 1,161	Unintentional Suffocation 6,080
9	Undetermined Unspecified 16	Unintentional Struck by or Against 38	Unintentional Poisoning 16	Unintentional Poisoning 22	Undetermined Poisoning 229	Unintentional Drowning 399	Unintentional Drowning 363	Unintentional Suffocation 452	Homicide Firearm 538	Suicide Poisoning 1,028	Unintentional Unspecified 5,848
10	Unintentional Fire/Burn 15	Unintentional Natural Environment 22	Unintentional Firearm (Other) 14	Homicide Cut/Pierce 19	Unintentional Other Land Transport 177	Unintentional Fall 285	Homicide Cut/Pierce 313	Unintentional Drowning 442	Unintentional Unspecified 530	Suicide Suffocation 880	Unintentional Drowning 3,408

Data Source: National Center for Health Statistics (NCHS), National Vital Statistics System
Produced by: National Center for Injury Prevention and Control, CDC using WISQOATS™



including

- 5,000 workplace-injury deaths
- 20,000 home-injury deaths
- 40,000 traffic deaths
- 100,000 medical-error deaths (up to 440,000)

<http://www.bls.gov/iif/oshwc/cfoi/cfchoo13.pdf>

<https://www.propublica.org/article/how-many-die-from-medical-mistakes-in-us-hospitals>

http://www.iccsafe.org/cs/CTC/Documents/guards/resource/guards_Moss_SOHSIA-2004report.pdf

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Jaco A. Riis, *A Ten Years' War: An Account of the Battle with the Slum in New York* (1900), gutenberg.org

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"Algorithmic Liability: Robots, Drones, Trolleys, and More"