

Policy Statement

Policy statements and clinical policies are the official policies of the American College of Emergency Physicians and, as such, are not subject to the same peer review process as articles appearing in the journal. Policy statements and clinical policies of ACEP do not necessarily reflect the policies and beliefs of *Annals of Emergency Medicine* and its editors.

Autonomous Self-Driving Vehicles

Originally approved January 2019

0196-0644/\$-see front matter

Copyright © 2019 by the American College of Emergency Physicians.

Autonomous Self-Driving Vehicles

[Ann Emerg Med. 2019;73:e85.]



More than 100 Americans die daily in motor vehicle crashes, and many more are injured or severely disabled. Worldwide, the death toll is well over 1 million annually. Innovations in autonomous vehicle technology have the potential to significantly reduce transportation-related injuries while improving access to health care for vulnerable populations and reducing the cost and time spent on transportation.

Decades of analysis of conventional automobile crashes have led to incremental improvements in safety. Because the lessons learned from smart vehicle near misses and incidents can be more readily analyzed and disseminated, the advent of these technologies will accelerate this quality improvement process. When fully mature, the technology piloting autonomous vehicles will operate with the encoded equivalent of centuries of human driving experience. Eventually, these transportation systems will be much safer than the vehicles of today.

Injuries involving self-driving cars have garnered public attention because of the novelty of the incidents and the technology involved. Incomplete reporting has the potential to sour public opinion and delay by years the advent of smart transportation systems. Unlike previous innovations such as seat belts and air bags, increased vehicle autonomy will be accompanied by a complex and inevitable shift in liability from drivers to product manufacturers and service providers, potentially endangering the development and widespread availability of this potentially lifesaving technology.

Given the significant societal benefits of mature autonomous vehicle technology, the American College of Emergency Physicians (ACEP):

- Encourages a coordinated effort by advocacy groups, transportation companies, vehicle manufacturers, federal and state agencies, and the medical community to leverage autonomous vehicle technology to reduce the injury and death associated with transportation
- Urges its members to provide a leadership role in defining public policy, developing guidelines, and securing adequate funding for enhancement and implementation of autonomous transportation systems, as well as performing and evaluating outcomes research to determine the public health effect of this new technology
- Supports the exploration of strategies to define and mitigate liabilities
- Encourages state governments and local municipalities to actively oversee and promote the prudent use and fielding of appropriately tested autonomous driving systems on public roads
- Applauds the innovative efforts of lawmakers and the National Highway Traffic Safety Administration to update the regulatory framework to facilitate the development of driverless technologies while maximizing public safety

Originally approved January 2019

<https://doi.org/10.1016/j.annemergmed.2019.02.036>