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# LED Streetlights Are Good for the Earth, Bad for Humans and Wildlife



An American Medical Association report says the new energy-efficient lights can put people and animals at risk.



*A street with LED roadway lights. (Photo: Ryan Pyle/Getty Images)*



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John R. Platt covers the environment, wildlife, and

technology and for TakePart,  
*Scientific American*, *Audubon*,  
and other publications.



Communities around the country are switching out their old roadside lighting for energy-efficient LED lights, but some of those new lights might be putting both people and wildlife at risk, according to the American Medical Association.

A report from the AMA's [Council on Science and Public Health](#) found that LED lights that operate on bluer wavelengths—which appear white to the human eye—can create a disorienting glare for drivers. The bright lights can also disrupt natural circadian rhythms, during which, according to the report, “melatonin blood concentrations rise, body temperature drops, sleepiness grows, and hunger abates, along with several other responses.”

Studies have shown that white LED streetlights are five times more powerful at suppressing circadian rhythms than the high-pressure sodium lights they are replacing, the AMA noted. Studies have also found that residents in communities with



more powerful nighttime lighting have higher cases of obesity and impaired daytime functioning.

The lights also have an adverse effect on nocturnal wildlife. Scientists have found that migrating birds are attracted to unnatural lighting, which often results in injuries or death when they collide with reflections on buildings or other structures. High-intensity light pollution has also been linked to [low survival rates for hatchling sea turtles](#) and even to inhibited migration rates for salmon and other fish.

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“It is good to see a consistent message coming from the medical community, the astronomical community, ecologists, and many lighting designers that too much

anthropogenic light in the blue portion of the spectrum has adverse consequences at night,” said Travis Longcore, science director of the Urban Wildlands Group, whose research is cited in the AMA report.

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“The transition toward LED lighting should pay attention to all environmental and health factors, not only be driven by light efficiency,” said Fabio Falchi, coauthor of a study published last week in *Science Advances* that mapped out the [growing levels of light pollution around the world](#).

Despite the warnings, the 540 doctors who voted on the AMA’s report came out strongly in favor of LED lighting, citing their ability to help communities reduce energy costs and decrease their consumption of fossil fuels.

Still, the AMA report recommends that authorities choose LED lighting with the “lowest emission of blue light possible” and says all lighting should be shielded to minimize glare and its effect on local wildlife. “The new AMA guidance encourages proper attention to optimal design and engineering features when converting to LED lighting that minimize detrimental health and environmental effects,” AMA board member Maya Babu said in a statement.

Longcore said this suggests that filtered or amber lights would be the safest options.

The new guidelines come at an important time. Only about 10 percent of roadway lighting in the U.S. has been converted to LEDs to date, and several programs are trying to accelerate adoption of the new technologies. The AMA report also fills an important gap, as there are no national regulations or standards for highway lighting.

Instead, lighting is covered under state laws, according to a spokesperson for the Federal Highway Administration.

The American Association of State Highway and Transportation Officials, which provides links on its website to several [state resources on roadside LED lighting](#), declined to comment on the AMA's proposals, saying it had not had enough time to study them.

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