

# WIND ENERGY AND HEALTH

More than 54,000 wind turbines are in operation in the United States today, safely generating electricity for our nation. Wind energy is one of the healthiest forms of energy generation in the world because it releases no greenhouse gases, soot, or carbon into the atmosphere; it also does not consume valuable freshwater or produce water pollution. Apex wind projects are built in full compliance with local, state, and federal safety regulations to protect the health and welfare of landowners, maintenance teams, and others.

## Key Findings from Health Impact Studies

Government- and university-sponsored studies around the world have repeatedly confirmed that modern, properly sited wind turbines pose no threat to public health. A growing number of studies reviewed by independent experts on wind energy and health have reached the same conclusion. A recent

Canadian study examined potential impacts of wind turbine sound among people living in close proximity to wind energy facilities. Based on self-reported data from those living near turbines, the study found no evidence that wind turbine sound has any effect on sleep, illnesses, chronic health conditions, perceived stress, or quality of life.<sup>1</sup>

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**The World Health Organization, which classifies diseases, does not recognize wind turbine syndrome, nor does any other medical institution.**

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## Wind Turbine Sound

The sound of wind turbine blades passing through the air is often described as a “whoosh.” If properly constructed at approved setback distances, the sound does not result in any health concerns. Scientific evidence confirms that this sound is not detrimental and that any low-frequency or infrasound waves produced are not harmful to those nearby.<sup>2</sup> Noise from wind turbines, including low-frequency noise and infrasound, is similar to noise from many other natural and human-made sources. There is no reliable or consistent evidence that proximity to wind farms directly causes health effects.<sup>3</sup>



“... infrasound emitted by wind turbines is minimal and of no consequence ... Further, numerous reports have concluded that there is no evidence of health effects arising from infrasound or low frequency noise generated by wind turbines.”<sup>4</sup>

## Shadow Flicker

This term refers to the shadows cast by wind turbine blades as they rotate in front of the sun. By positioning wind turbines at a carefully calculated angle and distance from dwellings, Apex ensures that most homes in a project experience no shadowing at all. For those that do, shadowing should occur for no more than a few minutes per day, on average. Shadowing does not occur on cloudy or foggy days.

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**The risk of ice striking a home 984 feet from a turbine is extremely low—researchers estimate that if it happens at all, it is only likely to occur once every 625 years.**

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While some have claimed that shadow flicker can create risk of seizures in photosensitive individuals, scientific evidence suggests that shadow flicker does not pose a risk of inducing seizures in people with photosensitive epilepsy.<sup>4</sup>

1. Health Canada, “Wind Turbine Noise and Health Study: Summary of Results,” <https://www.canada.ca/en/health-canada/services/environmental-workplace-health/noise/wind-turbine-noise/wind-turbine-noise-health-study-summary-results.html>.
2. Journal of Occupational and Environmental Medicine, “Wind Turbines and Health-MIT,” November 2014.
3. Australian Government, National Health and Medical Research Council, “Evidence on Wind Farms and Human Health,” February 2015.
4. Frontiers in Public Health, “Wind Turbines and Human Health,” June 2014.