

A HEALTHIER FUEL OPTION

Many Americans are taking a fresh look at health and wellness issues and are exploring new ways for their families to live better, healthier lives. Choosing ethanol-blended fuels is a simple way for Americans to improve human health and better the environment for their families and neighbors. Ethanol has a major role to play in securing cleaner air, cleaner water, and healthier soils.

Tailpipe emissions such as carbon monoxide, hydrocarbons, nitrogen oxides, and fine particulate matter are linked to a number of health issues, including lung disease and respiratory conditions, heart problems, cancer, and other illnesses. Adding ethanol to gasoline dilutes and displaces the most harmful gasoline components—like sulfur, benzene, toluene, and xylene—that are major contributors to smog formation. Because oxygen-rich ethanol is a cleaner-burning fuel, its use directly lowers the emissions that create urban haze and poor air quality.

The Hormel Institute, in collaboration with the University of Minnesota and the University of Illinois Chicago, found that increasing the use of ethanol reduces carcinogenic exposure, thereby decreasing cancer risk for American families.

Switching from E10 to E15 reduces:



Particulate matter

18%



Carbon monoxide

17%



Hydrocarbon gases

5-8%



Nitrogen oxide

3%

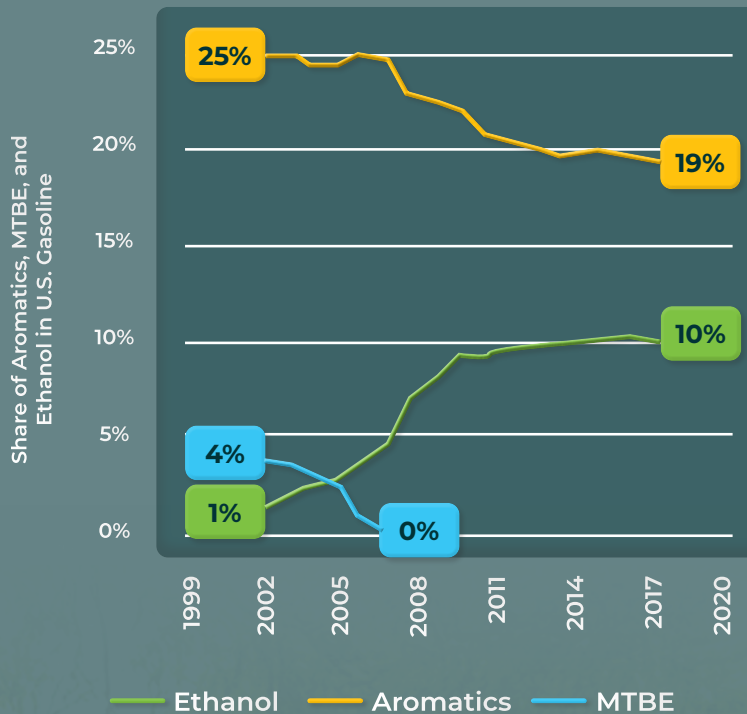
Source: UC Riverside



“It is essential to reduce exposure to the products from burning fossil fuels to prevent breast cancer. We are studying if reducing BTEX exposure will reduce susceptibility to PAH induced breast cancer. One way to reduce BTEX compounds is to reduce exposure by adding ethanol to gasoline.”

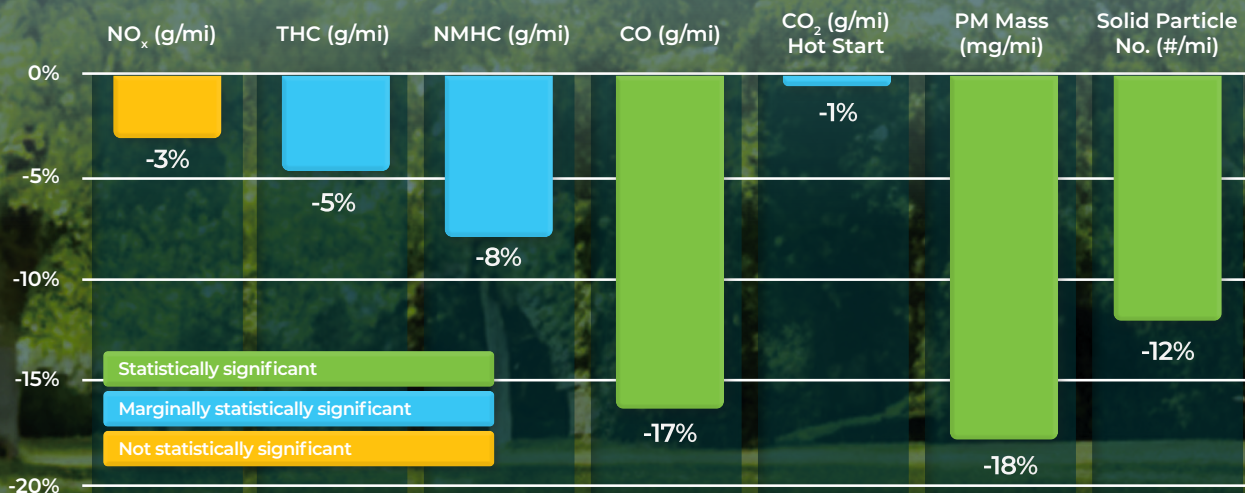
— Dr. Leena Hilakivi-Clarke, The Hormel Institute. BTEX refers to benzene, toluene, ethylbenzene and xylene; PAH refers to polycyclic aromatic hydrocarbons.

MORE ETHANOL MEANS LESS HARMFUL AROMATICS AND MTBE



Source: U.S. Environmental Protection Agency

E15 VS. E10: CHANGES IN EMISSIONS



Source: University of California, Riverside CE-CERT

Notes: Statistical significance based on least square means; NO_x, THC, NMHC, CO, CO₂ and PM Mass results are weighted based on cold-start, hot-start, and hot-running emissions.