



# Lead

## Frequently Asked Questions

### What is lead?

Lead (Pb) is a heavy metal. When inhaled, lead enters the bloodstream through the lungs and can cause a variety of health problems in humans.

### How does lead get in the air?

Large sources such as lead smelters and coal-fired power plants have heated processes where lead is used directly or contained within the fuel used and then small particles of lead are included in the exhaust as it is carried up and out of the chimney or stack.

### How much lead is in the air in Florida?

The U.S. Environmental Protection Agency (EPA) has established a National Ambient Air Quality Standard for the daily average concentration of lead to protect against exposure. It was changed in 2008 from a quarterly average to a rolling three-month average and lowered from 1.5  $\mu\text{g}/\text{m}^3$  to 0.15  $\mu\text{g}/\text{m}^3$ . All areas of the state are currently in compliance with the standard.

### What are the sources of lead?

The highest air concentrations of lead are usually found near lead smelters. In Florida, the largest source of lead is a battery recycling facility in the Tampa area. There are also a variety of industrial facilities such as coal-fired power plants in the state that have a small amount of lead emissions. Piston-engine aircraft contribute a small amount as well when operating with aviation fuel which still contains lead. EPA's 1971 regulations required the removal of lead from motor vehicle gasoline. With that change, the levels of lead in the air decreased significantly across the state. The graph below of a Miami-Dade County monitoring site demonstrates that reduction in airborne lead. Lead monitoring is now concentrated on areas with high emissions from industrial facilities.

