

Fact Sheet

Revised May 2017

Connecticut Department of Public Health
Environmental Health Section
Lead Poisoning Prevention & Control Program

Lead in Artificial Turf

Children who play on artificial turf surfaces may be exposed to lead dust released from turf fibers. Read this fact sheet to decide if you should test your artificial turf surface.

What is lead?

Lead is a toxic heavy metal. It's most common use was as an additive in paint made before 1978. It is still widely used in many commercial products.

Exposure to lead usually occurs through:

- inhalation and
- ingestion

Exposure to lead can cause mental and physical health problems in children and adults.



How are children exposed to lead?

Children can be exposed to lead from many different sources.

Environmental sources:

- Lead-based paint
- Lead dust from homes built before 1978
- Lead contaminated soil
- Lead contaminated water

Other sources:

- Food and food containers (especially imported)
- Folk remedies (Azarcon, Greta, Ayurvedic)
- Imported cosmetics (Kohl, Surma)
- Toys, furniture, jewelry, other household objects
- Occupational/hobby sources
- Lead found in manufactured products

How can lead affect the body?

No amount of lead in the body is safe. Many children do not show signs of lead poisoning. If signs are present, they may include vomiting, upset stomach, irritability and restlessness.

Lead can:

- damage the brain or nervous system
- interfere with growth
- cause learning disabilities
- cause speech, language and behavior problems
- cause seizures, unconsciousness and even death

Background on lead in artificial turf

In 2007, testing at a recreational artificial turf field in NJ showed that dust from the degraded turf fibers had high levels of lead. Since then, testing done in NJ as well as several other states, found high levels of lead in many varieties of artificial turf products, including products used in children's play areas in daycare settings and products sold for residential and landscaping uses.

Lead is added to the coloring of some synthetic turf products to make the turf more vibrant and durable. Some conditions such as age, weathering, exposure to sunlight, and wear and tear may cause the surface of the turf to become worn and small particles of lead can be released.

How can children be exposed to lead from artificial turf?

Children playing on artificial turf can be exposed when lead dust from worn turf fibers gets on their hands or on toys and then gets into their bodies through hand-to-mouth behavior. Young children are more at risk because they are more likely to put their hands and toys into their mouths.

**For more information on lead in turf,
please call the
State of Connecticut
Department of Public Health
Lead Poisoning Prevention
and Control Program
at 860-509-7299
or visit our website
at www.ct.gov/dph/lead.**

How do I know if the artificial turf at my child care program has lead in it?

The only way for you to know if artificial turf has lead in it is to have it tested. The artificial turf surfaces at your child care program should only be tested by a licensed lead consultant. Please visit our website for a list of licensed lead consultants as well as the testing protocol:

<http://www.ct.gov/dph/lead>

What do the results mean?

The Connecticut Department of Public Health recommends:

Bulk Sampling:

- If the concentration is less than ($<$) 300 milligrams per kilogram, no further action is necessary.
- If the concentration is greater than or equal to (\geq) 300 milligrams per kilogram, perform surface wipe testing to determine the dust lead loading on the turf surface.

Surface wipe testing:

- If the wipe testing results are greater than or equal to (\geq) 40 micrograms per square foot and children are likely to have frequent or prolonged contact with the turf (e.g., day care settings), restrict access by children or replace the turf with a product containing less than ($<$) 300 milligrams per kilogram.

Additional resources

Connecticut Department of Public Health

- www.ct.gov/dph

Centers for Disease Control and Prevention

- www.cdc.gov

Agency for Toxic Substances & Disease Registry

- www.atsdr.cdc.gov

Consumer Product Safety Commission

- www.cpsc.gov