#### WHAT IS LEAD?

Lead is a naturally occurring metal that can be hazardous to human health, especially for children under 6 years of age



# WHY IS LEAD A CONCERN?

- 1 in 20 children in Detroit is lead poisoned
- Children with blood lead levels higher than 10 µg/dL\* have lead poisoning
- Lead poisoning can cause learning and speech problems, hyperactivity and nerve damage that cannot easily be reversed and are likely to last a lifetime
- The effects of lead poisoning cannot always be seen
- A healthy diet high in vitamin C & D, calcium, zinc and iron can help reduce lead poisoning
- Children become lead poisoned by eating dust, dirt, and paint that contain lead
- All children under 6 should be tested yearly

### WHY IS THERE LEAD IN THE SOIL?

- Lead is found naturally in the soil in low amounts
- Most houses built before 1978 have leaded paint inside and outside
- Soil (mainly in large cities) may have high lead levels because of heavy industry and exhaust from leaded gas (banned in 1986)

# FOR MORE INFORMATION CONTACT:



Shawn P. McElmurry, Ph.D., P.E. Civil and Environmental Engineering (313) 577-3876 www.cee.eng.wayne.edu

Mary O. Dereski, Ph.D.
Institute of Environmental Health Sciences
Family Practice and Public Health Sciences
(313) 577-5597

www.iehs.wayne.edu



1418 Michigan Avenue Detroit, MI 48216 (313) 285-1249 www.detroitagriculture.org



CLEARCorps/Detroit
11148 Harper Avenue
Detroit, MI 48213
(313) 924-4000
www.clearcorpsdetroit.org/
Brochure designed by CLEARCorps/Detroit



<sup>\*</sup>  $\mu$ g/dL = microgram lead per deciliter of blood

# WHERE CAN LEAD BE FOUND IN YOUR YARD?

- Lead may be found in the top 4 inches of soil around your yard
- Soil lead is found in highest amounts near the walls of buildings, especially if they were painted prior to 1978
- Soil lead levels can be higher close to roads

# WHERE IS LEAD IN THE GARDEN?

- Lead is not usually found in the fruit of the plant like cucumbers, tomatoes, or strawberries
- Lead is most often found in the root of plants like carrots, beets, turnips, potatoes
- Soil with lead can collect on leafy vegetables (collards, kale, turnip greens) especially those close to the ground

# WHEN SHOULD YOU BE WORRIED?

When your yard has a soil testing level of

- Below 100 ppm\*: safe range, no action needed
- 100-400 ppm\*: level of concern, use Best Gardening Practices
- 400-2,000 ppm\*: NO gardening before contacting a professional gardening group like The Greening of Detroit
- Above 2000 ppm\*: gardening of any kind is NOT recommended
- \* ppm = Parts-Per-Million = 1 milligram Pb per kilogram soil (mg/kg) (Concentration of Lead from soil test)

### BEST GARDENING PRACTICES

### **Yearly Upkeep**

- Treat soil with lead free compost
- Till soil as deeply as possible (at least 4 in.)
- Plant your garden away from buildings, garages and the street
- Keeping your soil pH above 6.5 will help limit the amount of lead entering plants



### **Before/During Gardening**

- · Wear gloves and wash up after gardening
- Keep a layer of mulch around plants to stop soil from splashing onto leaves during rain
- Do not eat or smoke while gardening
- Wet the soil before working in the garden to keep soil dust down
- Keep children under 6 years old out of gardens with soil lead levels above 100 ppm\* because they may eat dirt

### After Harvesting/Before Eating

- Wash all vegetables with soap and water or a vinegar water mixture (1 part vinegar to 9 parts water)
- Throw away outer leaves of leafy vegetables, and wash inner leaves well
- Peel and wash root vegetables well (if your soil lead levels are higher than 400 ppm\* you should not plant root crops before consulting a professional gardening group)

#### CLEANING UP AFTER GARDENING

- Wash hands after working in the garden
- Remove shoes/boots before coming into your home
- · Keep a separate set of clothes for gardening
- Wash gardening clothes separately

# GET YOUR SOIL TESTED!

The suggested local source is the professional gardening group **The Greening of Detroit** (see back)

www.detroitagriculture.org

**Other Resources** 

Michigan Dept. of Community Health

www.michigan.gov/mdch
University of Massachusetts

Soil and Plant Tissue Testing Laboratory www.umass.edu/soiltest

Accurate Analytical testing LLC www.accurate-test.com