Lead in the Garden?

Lead in the soil is a concern in East Helena, where smoke from the ASARCO lead smelter contaminated the ground with lead and arsenic over many decades.

Lead tends to accumulate in the top 3-6 inches of soil. It doesn't break down or leach out of the soil over time.

The smelter closed in 2001. Federal, state, and local officials have since worked hard to remove and replace contaminated soil in residential areas of East Helena.

But lead in the environment cannot be completely eliminated or contained. There's still some contaminated soil under the clean cover soil. Residents who have produce gardens in East Helena should take precautions to reduce their risk of lead exposure.

Generally, it's considered safe to use garden produce grown in soils with total lead levels less than 300 parts per million. Even at soil levels above 300 ppm, most of the risk is from lead-contaminated soil or dust getting onto plants rather than plants absorbing lead through their roots.

Studies show that lead doesn't concentrate in the fruiting parts of vegetable or fruit. But it can get on leafy vegetables and on the surface of root crops, like potatoes and carrots.

If you're planting a garden in East Helena and want to know if there's lead in your soil, call the Lead Education and Assistance Program, 457-8583. We'll check to see if your yard has been sampled or cleaned. If not, we'll sample the garden area for you.

More information

East Helena Lead Education and Assistance Program (LEAP)

306 East Main Street, Room 201
PO Box 1231
East Helena, MT 59635
(406) 457-8583

Lewis & Clark City-County Health Department
Lead Education and Assistance Program

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Gardening & Lead

A public health guide

Gardening in soil that may be contamined with lead can create special challenges. Follow these tips to make sure the produce you grow is healthy and safe to eat.

A publication of the
Lewis & Clark City-County
HEALTH DEPARTMENT

Gardening Safety Tips

Gardening and Your Health

Gardening is a great way to improve your health. It can encourage you and your family to eat more fruits and vegetables. And it can provide an opportunity for more physical activity.

If you're concerned about lead in your soil, that doesn't mean you have to give up on the idea of gardening. By taking a few precautions, you can still reap all the health benefits of this popular activity.

Siting Your Garden

First, give some thought to how and where you'll plant your garden.

To reduce exposure to lead in the soil, consider growing your crops in one of these ways:

- Dig out and dispose of the top 6 inches of soil, lay down a barrier of landscaping fabric, and fill the site with new, lead-free soil.
- Build raised beds using safe materials (don't use treated lumber, railroad ties, or old painted wood), lay down a barrier of landscaping fabric, and fill the beds with clean soil.
- Grow crops in containers filled with clean soil. Gardening centers offer many alternatives.
- Locate your garden as far as possible from busy streets or highways or old buildings. Traffic can spread dust contaminated with lead, and old buildings may shed lead paint.
- Consider siting your garden on land somewhere else, such as in a community garden. You can learn more about community gardens in the Helena area at http://helenagardens.org/.

Protecting Your Garden

These tips will help reduce the chances that the plants in your garden will absorb lead from the soil:

- Add organic materials, like compost, manure, leaves, or grass clippings, to your garden. Organic compounds bind lead and make it less available to contaminate plants.
- Add mulch to the garden to reduce dust and to prevent soil from splashing onto plants during irrigation or rainstorms.
- If someone nearby is removing paint or doing other home renovation, cover your entire garden with canvas to catch paint chips and dust. Remove after the work is completed.

Working in Your Garden

The most important thing to keep in mind while working in your garden is to avoid getting soil in your mouth or tracking it into your home.

- Wash hands, toys, or anything else that comes into contact with your garden soil.
- Wear gloves while gardening and when harvesting produce.
- Take gardening shoes off before entering your home, and avoid contact between gardening clothes and furniture.
- Encourage kids to play in areas other than the garden.

Enjoying Your Produce

- Wear gloves while harvesting your crops and wash hands after working in the garden.
- Wash produce thoroughly to remove soil completely.
- Keep preparation surfaces clean of soil.
- Throw away the outer leaves of leafy vegetables.
- Peel root crops, like carrots and beets, to remove the skin and any soil clinging to it.