



## Lead in Urban Soil

There are challenges to gardening in the city, and one of the biggest issues for urban gardeners is lead in soils. Lead is a dull, grayish-white heavy metal, which is soft, workable, and incredibly useful. Until relatively recently, medicines, paints, and gasoline all contained lead compounds. Stained glass windows, car batteries, and fishing weights all depend on lead. As useful as lead may be, the stuff is also a health hazard. Although adults can be affected by lead, children, especially those under 6, are at the highest risk of serious lead poisoning, any lead at all in the body is a concern.

The most common way people get lead poisoning is not from eating contaminated crops but rather from eating or breathing dust or soil containing lead, or from absorbing lead through their skin, especially through cuts or breaks. Children under 6 are at the highest risk because they often play in or eat dirt, and their bodies absorb more lead than adults' bodies do. Safe gardening around suspected high-lead soil involves avoiding breathing in or ingesting dust and dirt and being careful when working with the soil itself.

### Suggestions:

- **Garden on your ground, not in it.** Build raised beds and fill them with clean soil and compost. Keep your soil covered, both in your growing beds and around them to reduce the risk of water from a hose or rainwater splashing soil on plants or on yourself.
- **Keep your soil pH neutral or slightly alkaline (between 6.5 to 7.0).** Lead in acidic soils is far more bioavailable than in neutral to alkaline soils. The easiest way to raise the pH is to add.
- Amend your soil **with lots of compost.** High levels of organic material help bind up toxic metals. There's no such thing as too much compost, either.
- Supplement your soil with **rock phosphate** or fish bone meal. Phosphate binds to organic lead. The lead will still remain in your soil, but your body won't absorb it.

### Handling Roots, Leaves, and Fruits Grown in Urban Soil

- Plant more fruiting crops, such as tomatoes, squash, peppers, okra, cucumbers, peas, or beans. These plants accumulate the least amount of lead.
- Wash greens and leafy parts of plants thoroughly, preferably outside in the garden first. Remove and discard the outer leaves.
- Root crops take up the most lead (though still a negligible amount). Wash root vegetables with a water-vinegar solution; remove the skin before eating.