

Simple Steps to Reduce Arsenic Exposure in Areas of Suspected Arsenic Contamination of Soil

Porcupine Health Unit, Public Health Inspection Services, Health Hazard Awareness

What can I do to reduce my family's exposure to arsenic?

If you live in an area where arsenic is a concern, there are steps you can take to reduce your exposure to arsenic and other metals in soil and dust :

- Pay attention to and respect warning signs and fences asking you to stay off mine tailing areas.
- Cover bare soil with grass or other material.
- Keep children from playing in bare soil areas.
- Encourage children to play in paved or grass covered areas.
- Wash your hands and face or your children's, after working or playing outdoors and before eating.
- Remove outdoor shoes before entering the house.
- Wash soil laden clothes separately from other clothes.
- Damp-mop floors and wipe down counters, tables and window ledges regularly. Vacuum cleaners tend to stir up dust unless you use one with a HEPA (high efficiency particulate air) filter.
- Prevent pets from tracking contaminated soils into your home. Brush or wash pets to reduce dust particles prior to entering the home.

What can I do to reduce arsenic in my garden vegetables?

Although vegetables and fruits may take up very small amounts of arsenic into their roots or leaves, ingestion of particles of contaminated soil is generally more of a concern.

Most vegetables are sensitive to arsenic levels in soil and will fail to grow if arsenic levels are elevated.

Green beans, which are very sensitive to arsenic, are good indicators of arsenic in soil. If they grow well in a garden, it is unlikely that the uptake of arsenic in other vegetables will be high enough to pose a health risk.

Generally, inorganic arsenic is present in leaf and root-type vegetables, but not at levels high enough to cause concern.

The following are suggestions to reduce the amount of contaminated soil that you unintentionally swallow or breathe in while gardening or working around your home.

- Wear gloves while gardening.
- Add clean soils or soil supplements such as compost or mulch to reduce contaminants in garden soils.
- Consider establishing a raised bed using clean soils.
- Dampen soils with water before you garden to limit the amount of dust you inhale.
- Wash hands with soap and water after working in the garden and before eating produce from the garden.

- Do not compost unused plant parts, peelings, and parings for later use in a fruit and vegetable garden.
- Discard older or outer leaves of leafy vegetables during food preparation.
- Rough-surfaced crops like broccoli and lettuce can trap dust and must be washed thoroughly.
- Peel root vegetables as arsenic is preferentially stored in surface skin.
- Avoid tracking garden soil into the home on clothes, shoes or tools.
- Designate a pair of shoes and clothing solely for gardening and leave them outside the house in a shed.
- Do not use CCA (arsenic containing) treated lumber to build raised beds.

Sources:

1. *Arsenic in the Environment*, viewed on-line 05/12/2010 (<http://www.ene.gov.on.ca/publications/3792e01.php>)
2. *Safe Gardening, Safe Play, and a Safe Home*, viewed on-line 05/12/2010 (<http://www.atsdr.cdc.gov/sites/springvalley/svgardening.html>)

**For more information,
contact your local
health inspector
or call 1-800-461-1818.**

