Aristolochic Acids

Key Points

**What are aristolochic acids?**
(Pronounced a ris-ti lok-ik as-ids)
Aristolochic acids are a family of acids found naturally in the plants Aristolochia and Asarum, which grow throughout the United States and worldwide.

**How are aristolochic acids used?**
Plants containing aristolochic acids are often used as herbal medicines or in other botanical products in the United States and abroad. Aristolochic acids may be found as a contaminant in herbal products used to treat a wide variety of symptoms and diseases, such as arthritis, gout, and inflammation.

**What are the known human carcinogens?**

- Known human carcinogens
- Found in certain plants
- Used as herbal medicines

**What evidence is there that aristolochic acids cause cancer?**

**Human Studies**
Studies in humans show high rates of cancers of the urinary bladder or upper urinary tract, among individuals with kidney or renal disease who consumed botanical products containing aristolochic acids.

**Animal Studies**
The findings in humans are supported by laboratory animal studies showing oral exposure to aristolochic acids caused tumors in the forestomach and urinary tracts of various animal species.

**Mechanistic Studies**
There is mechanistic data showing that aristolochic acids are the agents in these products that are causing the cancer in humans and animals.

**How can I prevent exposure to this botanical?**
Do not use botanical products that contain aristolochic acids. For a full list, see the FDA website at [http://www.fda.gov/Food/DietarySupplements/Alerts/ucm095297.htm](http://www.fda.gov/Food/DietarySupplements/Alerts/ucm095297.htm)

Contact the manufacturer or distributor of a product, if you have any questions about its content.

**Where do I go for more information?**
National Toxicology Program [http://ntp.niehs.nih.gov/go/roc12candidates](http://ntp.niehs.nih.gov/go/roc12candidates)