



Spring Valley, Washington, D.C. Community Newsletter - August, 2002

Newsletter No. 2

The Agency for Toxic Substances and Disease Registry (ATSDR) is pleased to provide the Spring Valley community with updates regarding our activities. As stated in the February 2002 newsletter, ATSDR will update local residents every 6 months on its activities related to the Spring Valley site.

We are pleased to announce the development of the ATSDR Spring Valley Web site, which will also provide you with information regarding our past and present activities. We continue to value and welcome your opinions and comments regarding what you would like to see included in future newsletters.

Robert C. Williams, PE, DEE
Assistant Surgeon General
Director, Division of Health Assessment and Consultation

In 2001, ATSDR conducted an Exposure Investigation of the Spring Valley community. Here are answers to questions we received from community members.

Questions and Answers Regarding ATSDR's Exposure Investigation

What Is an Exposure Investigation?

An exposure investigation collects information on specific human exposures to hazardous substances in the environment. For the Spring Valley site, ATSDR is collecting data on people's exposure to elevated levels of arsenic in soils in their yards. The U.S. Army Corps of Engineers and partners have established a 20 parts per million (ppm) remediation level for residential yards in Spring Valley.

Why Conduct an Exposure Investigation?

An exposure investigation provides useful information to help determine whether a health hazard exists. It may tell us if significant exposures have occurred, those being exposures that exceed what is normally found in the human population.

What Were the March 2002 Exposure Investigation Findings?

On December 7, 2001, ATSDR staff met with the Spring Valley Scientific Advisory Panel to discuss an exposure investigation proposal for the Spring Valley community. On January 23, 2002, ATSDR held a public meeting to discuss the investigation with the community. ATSDR then conducted the investigation during March 13-15, 2002.

Residents who lived at the 20 homes with the highest soil composite concentrations of arsenic in their soil were invited to participate. Thirty-two people (23 adults and 9 children) from 13 homes volunteered to participate. ATSDR staff collected urine and hair samples from the participants, as well as house dust samples from their homes. The urine samples were analyzed for both inorganic forms of arsenic and total arsenic. These two separate analyses can help to distinguish between dietary sources of arsenic (from fish and shellfish) and environmental sources of exposure. ATSDR gave participants their individual test results and presented a summary of the findings to the Scientific Advisory Panel on May 29, 2002. The summary is available on the Spring Valley Web site. ATSDR will release a report about the findings later this year.

Arsenic in Urine

Individuals had their urine tested for inorganic arsenic (which could be coming from naturally-occurring arsenic in the soil or contaminated soil and dust) and total arsenic (which could come from all sources — food, water, air, soil, and dust).

ATSDR measures arsenic in urine in parts per billion (ppb). Urine arsenic levels, which are a good measure of recent arsenic exposure, were low in the people tested.

Only four individuals tested had detectable levels of inorganic arsenic in their urine, ranging from 10 ppb to 15 ppb. Levels of inorganic arsenic below 20 ppb usually indicate no significant exposure.

All individuals tested had total urinary arsenic levels between 0 and 210 ppb. This value range is what one might expect in the general population. The total urinary arsenic is mostly organic arsenic from food sources and is much less toxic than inorganic arsenic.

Arsenic in Hair

Individuals also had their hair tested for arsenic. Hair arsenic testing is not as accurate as urine testing, but allows us to look at arsenic exposure during the past months or years (depending on the length of the hair). ATSDR measures arsenic in hair in parts per million (ppm). The hair arsenic levels found during the Spring Valley testing show low levels of exposure and would not be expected to cause any health problems.

All individuals tested had hair arsenic levels between 0 ppm and 0.73 ppm. The average level was 0.1 ppm. Levels below 1 ppm usually indicate no significant exposure.

Arsenic in Household Dust

Household dust was tested in 13 homes. Interpreting the significance of household dust levels is difficult. However, it is apparent from the hair and urine tests that these levels do not appear to be causing elevated arsenic levels, or any increased health risks, to individuals in these homes.

Levels of arsenic in household dust ranged from 0 ppm to 63 ppm.
The average level of arsenic in household dust was 9.9 ppm.

What's Next?

ATSDR is conducting another exposure investigation beginning this month. This investigation again focuses on residences with the highest soil arsenic levels. The District of Columbia Department of Health (DCDOH) is helping ATSDR collect urine samples. The purpose of this investigation is to determine whether people are being exposed to arsenic in the soil during remediation in the Spring Valley area and to retest during summer months to determine if any higher exposures were indicated.

What Else Is ATSDR Doing?

Elevated arsenic concentrations have been detected in soils at and around American University in Washington, D.C. People living and working in the Spring Valley neighborhood have expressed concern that chemical exposures have led to illnesses in the community. In response, ATSDR is reviewing the scientific literature to see if existing data suggest a plausible relationship between site contaminants, including chemical warfare agents, and self-reported illnesses. The self-reported illnesses are those reported by residents to the D.C. Department of Health Hotline.

ATSDR will release the review findings in a health consultation planned for release in 2003.

Additional Information Related to Arsenic

A major source of elevated arsenic levels in Spring Valley surface soils is from chemical warfare agents tested there during World War I. Area-wide soil sampling results show that other breakdown products of the chemical warfare agents did not remain in the surface soils; however some arsenic did stay in the soil.

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For more information about other ATSDR activities, visit ATSDR's [Internet homepage](#).

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