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WQA PRESS RELEASE

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NEW STUDY: ARSENIC IN DRINKING WATER ACCELERATES TUMOR GROWTH

Lisle, Illinois USA — August 9, 2005 A recent study on the effects of environmental arsenic at the University of Oklahoma Health Sciences Center indicates that arsenic in drinking water can both stimulate the growth of cancerous tumors and cause them to spread faster.

While researchers still do not know whether arsenic in drinking water increases the overall incidence of tumors, the study shows that arsenic levels as low as four parts per billion can stimulate blood vessel growth, and levels as low as 10 ppb cause tumors to expand. Many previous studies have linked arsenic ingestion and cancer — especially skin and bladder cancers.

This report comes at a time when water systems across the US are struggling to conform to a new current federal arsenic standard of 10 parts per billion (ppb) by January 23, 2006. The previous standard had been 50 ppb. In the state of Oklahoma alone, it will cost between \$55 billion and \$163 billion to replace or upgrade the 25 systems to address the lower arsenic standard.

When water containing arsenic is ingested, the arsenic reacts with oxygen to create “free radicals” — highly reactive molecules — that stimulate the growth of blood vessels. More blood vessels result in an increase in blood supply to any tumors, which then grow faster and larger.

Some scientists have suggested that even the new standard of 10 ppb¹ is too high, and California considered setting the cap at 4 ppb².

Existing, proven POU/POE home products (point of use/point of entry) can reduce arsenic levels in water to below 4 ppb (see page 2).

For Arsenic (+3) WQA recommends treatment with:

- Chemical Oxidation/Disinfection followed by Arsenic (+5) treatment technologies

For Arsenic (+5) you can treat water with:

- Iron-based or iron-doped arsenic treatment media
- Anion Exchange
- Activated Alumina
- Reverse Osmosis
- Distillation
- Electrodialysis
- Other specialty media for arsenic treatment

For Arsenic (organic complexed) treat water with:

- Carbon Filtration.

NOTE! Not all parts of the country have naturally occurring arsenic in the water. Consumers should check with a water treatment specialist³ and/or their municipal water system operators or county extension office. WQA urges those on private wells to have their water tested for arsenic and other possible contaminants.

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1. <http://www.wqa.org/sitelogic.cfm?ID=1532>
2. <http://www.wqa.org/sitelogic.cfm?ID=1122>
3. <http://www.wqa.org/members.cfm>