

## Study: Depleted uranium could damage DNA

DOD officials say exposure not a health risk to troops

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Mideast edition, Saturday, April 15, 2006

WASHINGTON — Depleted uranium, used to harden vehicles and armor-piercing munitions, might cause damage to DNA in ways previously not understood by health officials, according to a recently released study from Northern Arizona University.

The research could again raise questions about the military's use of depleted uranium, a practice Defense Department officials insist does not present health risks to troops. The dense metal is a by-product of the nuclear fuel enrichment process.

Theories connecting Gulf War Syndrome to radiation exposure from uranium-laced battlefields have persisted for years. Defense Department studies show no lingering exposure danger, officials said.

A 2004 study by the Defense Department concluded that the health risks from inhaling airborne particles of depleted uranium are "very low" in combat situations.

But the new study, conducted by biochemist Diane Stearns shows that, separate from any radiation risks, cells exposed to uranium can bond with the heavy metal particles. That biochemical reaction can cause genetic mutations, which in turn can curtail cell growth and potentially cause cancer.

Stearns said the research is too preliminary to prove that uranium-treated ammunition can cause harmful side effects.

"But it does raise the question of whether we're testing for the right things when we look at the health effects," she said. "If we're not seeing radioactivity in people being tested, maybe that's not what we should be looking for."

If bullets coated with DU are used on a battlefield, their impact on a target could potentially send miniature metal fragments into the air. Stearns said her work shows the long-term effects on what those particles could do to the human cellular system have not been fully researched.

A statement from the Defense Department on Friday said the department has investigated the toxic properties of uranium as a heavy metal, and that no evidence exists to show that Gulf War veterans have suffered any chromosomal or genetic damage from DU exposure.

"(Stearns') studies add another piece to the puzzle, but there is already a lot of information in this area," the statement said.

Past studies reviewed by the Pentagon have shown that uranium at high levels can cause kidney damage in animal experiments, but have not shown a link between the lower levels of exposure from DU munitions and veterans' health.

A Baltimore Veterans Affairs Medical Center research team has been tracking 80 soldiers from the first Gulf War whose vehicles were peppered with DU rounds during combat, all of whom had some inhalation exposure to the heavy metal.



**Rep. Jim McDermott, D-Wash., has called for an independent study of the health risks posed by depleted uranium.**

Officials said that, to date, none of them has developed kidney problems or uranium-related cancers. In addition, the group has fathered 68 children, none of whom has birth defects.

Still, Rep. Jim McDermott, D-Wash., has been petitioning for more extensive testing on DU for more than a year, and recently called on Congress to renew discussions on the issue at a rally featuring Physicians for Social Responsibility and the punk-rock group Anti-Flag.

“All I’m really asking for is an independent study,” he said in an interview earlier this month. “It’s clear this issue about the health effects is out there and floating around. But it’s also clear the Pentagon does not want to study it.”

Last summer, McDermott introduced legislation which would mandate a series of research projects on the material’s effects on troops, civilians and the environment. The bill hasn’t moved since then.

A Defense Department spokeswoman said a number of independent groups — including the United Nations, researchers from the New England Journal of Medicine, and the Rand Corporation — have all published studies in recent years supporting the Pentagon’s conclusion that depleted uranium munitions are not a health risk for U.S. troops.

Misinformation about the supposed dangers continues to be a problem, the spokesman said, despite the department’s own extensive testing of troops.

Since May 2003, 2,122 troops who served in Iraq and Afghanistan and who may have been exposed to DU have undergone radiation screenings. Only eight showed elevated levels, all of whom were still within prescribed health standards, and all of them had munitions fragments in their body at the time.

Defense officials said they have no plans to phasing out the use of DU munitions or a ban on its use.

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