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# Scientists urge shell clear-up to protect civilians

Royal Society spells out dangers of depleted uranium

**Paul Brown, environment correspondent**

**Thursday April 17, 2003**

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Hundreds of tonnes of depleted uranium used by Britain and the United States in Iraq should be removed to protect the civilian population, the Royal Society said yesterday, contradicting Pentagon claims it was not necessary.

The society's statement fuels the controversy over the use of depleted uranium (DU), which is an effective tank destroyer and bunker buster but is believed by many scientists to cause cancers and other severe illnesses.

The society, Britain's premier scientific institution, was incensed because the Pentagon had claimed it had the backing of the society in saying DU was not dangerous.

In fact, the society said, both soldiers and civilians were in short and long term danger. Children playing at contaminated sites were particularly at risk.

DU is left over after uranium is enriched for use in nuclear reactors and is also recovered after reprocessing spent nuclear fuel. There are thousands of tonnes of it in stores in the US and UK.

Because it is effectively free and 20% heavier than steel, the military experimented with it and discovered it could penetrate steel and concrete much more easily than conventional weapons. It burns at 10,000C, incinerating everything as it turns to dust.

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As it proved so effective, it was adopted as a standard weapon in the first Gulf war despite its slight radioactive content and toxic effects. It was used again in the Balkans and Afghanistan by the US.

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DU has been suspected by many campaigners of causing the unexplained cancers among Iraqi civilians, particularly children, since the previous Gulf war. Chemicals released in the atmosphere during bombing could equally be to blame.

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Among those against the use of DU is Professor Doug Rokke, a one time US army colonel who is also a former director of the Pentagon's depleted uranium project, and a former professor of environmental science at Jacksonville University. He has said a nation's military personnel cannot wilfully contaminate any other nation, cause harm to persons and the environment and then ignore the consequences of their actions. He has called on the US and UK to "recognise the immoral consequences of their actions and assume responsibility for medical care and thorough environmental remediation".

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The UN Environment Programme has been tracking the use of DU in the Balkans and found it leaching into the water table. Seven years after the conflict it has recommended the decontamination of buildings where DU dust is present to protect the civilian population against cancer.

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Up to 2,000 tonnes of DU has been used in the Gulf, a large part of it in cities like Baghdad, far more than in the Balkans. Unep has offered to go to Iraq and check on the quantities of DU still present and the danger it poses to civilians.

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Professor Brian Spratt, chairman of the Royal Society working group on depleted uranium, said that a recent study by the society had found that the majority of soldiers were unlikely to be exposed to dangerous levels of depleted uranium during and after its use on the battlefield.

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"However, a small number of soldiers might suffer kidney damage and an increased risk of lung cancer if substantial amounts of depleted uranium are breathed in, for instance inside an armoured vehicle hit by a depleted uranium penetrator."

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He said the study also concluded that the soil around the impact sites of depleted uranium penetrators may be heavily contaminated, and could be harmful if swallowed by children for example.

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"In addition, large numbers of corroding depleted uranium penetrators embedded in the ground might pose a long-term threat if the uranium leaches into water supplies.

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"We recommend that fragments of depleted uranium penetrators should be removed, and areas of contamination should be identified and, where necessary, made safe."

He added: "We also recommend long-term sampling, particularly of water and milk, to detect any increase in uranium levels in areas where depleted uranium has been used. This provides a cost-effective method of monitoring sensitive components in the environment, and of providing information about uranium levels to concerned local populations."

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