

Fresh worry over breast implants

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Fears about the risks of silicone breast implants will be re-ignited by a review which suggests almost all will rupture within 20 years. Jeremy Laurance, Health Editor, says there are unanswered questions about the safety of the implants used by thousands of women.

Silicone breast implants, once described as a "timebomb ticking in women's chests", may turn out to be just that, a review of research, published in *The Lancet*, has concluded. There is evidence that the implants, used to boost the natural assets of American film stars Demi Moore and Melanie Griffiths and the British Page Three model Melinda Messenger, become weaker with age and more prone to leak.

One study found 11 per cent of women had a ruptured implant after eight years, half after 12 years and 95 per cent after 20 years. British experts said the findings were alarmist and took no account of improvements in the manufacture of implants over the past two decades. David Sharpe, consultant plastic surgeon and chairman of the Breast Special Interest Group of the British Association of Plastic Surgeons, said those made since 1989 had thicker walls, with a different construction. "It is complete nonsense to suggest almost all implants will rupture in 20 years."

Manufacturers say only 0.2 to 1.1 per cent of implants rupture but estimates reported to the US Food and Drugs Administration (FDA) have been higher. The authors of the re-

view, Lori Brown and colleagues from the Centre for Devices and Radiological Health at the FDA, say: "There is an emerging consensus that [the rate] is much higher than previously suspected." In Britain about 5,000 women a year have the implants, 60 per cent for cosmetic reasons and the remainder following surgery for breast cancer. In the US an estimated one to two million women have had them. The FDA banned silicone breast implants for cosmetic reasons in 1992, although they are still permitted for reconstructive purposes.

That ban was imposed not because the implants were known to pose a risk but because manufacturers failed to collect information on the issue, as they were legally required to do. A decision by the main manufacturers to set up compensation funds worth more than \$6bn for affected women was taken because they calculated it would save them tens of billions of dollars in legal costs, even if they were to win and not because they admitted liability.

UK government reviews in 1992 and 1994 declared the implants safe but a third review ordered by health minister Baroness Jay last summer and chaired by Sir Kenneth Calman, the Chief Medical Officer, is due to report in the New Year. The third review was prompted by renewed concerns over safety and over the advice given to women prior to receiving implants, a health department spokeswoman said. —*The News-The Independent*

Safe way to destroy weapons

Science & Tech.

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BRITISH scientists have developed a process which will help countries faced with the daunting task of destroying huge stockpiles of chemical weapons. Nations which have ratified the Chemical Weapons Convention will have 10 years to get rid of their chemical arsenals.

Incineration is the main way such chemicals are destroyed. But since this produces toxic pollutants and is potentially hazardous, experts have been looking for alternatives.

Now a British company has come up with a solution which is said to be both safe and environment friendly.

The Silver II process uses silver ions — charged atoms — and nitric acid to break the organic material from which chemical weapons are made down to harmless carbon dioxide, water and inorganic salts. This is either vented to the atmosphere, recycled or disposed of as industrial waste.

AEA Technology, based in Didcot, Oxfordshire, southern England, originally developed the system for the destruction of organic waste within the nuclear industry. It has been in use for several years at the Dounreay nuclear reprocessing plant in Scotland.

For destroying chemical warfare agents it has the advantage of operating at atmospheric pressure and at a relatively low temperature — both of which enhance safety.

Last year Silver II was demonstrated to the UK Army at the Ministry of Defence Chemical and Biological Defence Establishment at Porton Down, Wiltshire, western England. It is one of three civilian technologies being evaluated by the UK as potential alternatives to incineration. During the test Silver II successfully destroyed 15 litres of VX nerve agent and 18 litres of mustard gas.

A spokesman for AEA Technology said:

"There's certainly a lot of interest from the US in this process. There are a number of problems with incineration. Firstly dangerous chemicals like dioxins can be vented to the atmosphere, and you may well have pockets of material that do not get fully incinerated. Also, using heat inherently dangerous substances like this in itself a risk."

He said Silver II produced relatively little waste and in the long term was no more expensive than incineration. It was also possible to transport a self-contained Silver II plant to the weapons, instead of having to move the weapons to the disposal site. This would be useful when dealing with munitions found on old battlefields or training areas.

A total of 162 countries have signed the Chemical Weapons Convention and 74, including Britain, have ratified it. — LPS