Silicone Breast Implants

Silicone has been used in many biomedical applications, most notable as breast implants. Controversy developed in the 1990s around claims that the silicone gel in breast implants was responsible for a number of systemic health problems, including autoimmune diseases. However, many studies have reported that women with silicone breast implants are no more likely to develop systemic illness than women without breast implants.

Existing studies have not analyzed the rate of rupture past 10 years (and those studies are small and excluded women who had removed implants because of rupture). In addition, no study has examined the long-term effects of rupture at 10, 20, 30 years and beyond (although implants have been used since the 1960s).

Silicone implants do rupture, and it has been documented that silicone can migrate after rupture. Nonetheless, because of the studies that did not find conclusive evidence of systemic problems, both Health Canada and the FDA have recently approved the use of silicone implants. The FDA has placed conditions on its approval - notably that manufacturers inform women that silicone implants are not lifetime devices, and women must be 22 years old or older, to receive implants for augmentation purposes. The FDA also is requiring a 10 year study with a large number of women, and has recommended that women follow up with regular MRIs to detect possible rupture.