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Food Wrap Linked to Prostate Cancer

by Jonathan Leake, Science Editor

A CHEMICAL used to make food wrapping and line tin cans could be the cause of surging prostate cancer rates in men, says a study. Bisphenol A is widely used in the food industry to make polycarbonate drinks bottles and the resins used to line tin cans, even though it is known to leach into food and has long been suspected of disrupting human sex hormones.

The new research suggests the small but constant level of bisphenol A entering people's diet has a particular impact on pregnant women, disastrously altering the development of unborn baby sons.

The chemical causes microscopic changes in the developing prostate gland but these are not apparent at birth. Instead, they show up years later when they lead to a range of prostate diseases, such as enlargement and cancer. The changes can also cause malformation of the urethra, the channel for urine.

In Britain, rates of the cancer have surged to about 27,000 new diagnoses and 10,000 deaths a year. It is now almost as big a killer as breast cancer in women.

Frederick vom Saal, professor of biological sciences at the University of Missouri, who led the study, warns: "During foetal life small amounts of such oestrogenic chemicals could permanently disrupt cellular control systems and predispose the prostate to disease."

In the study vom Saal and his colleagues fed tiny amounts of bisphenol A to pregnant mice. Another group of pregnant mice was fed similar amounts of ethinylestradiol, which is used in the contraceptive pill.

The researchers wanted to examine whether similar damage to the prostate occurred when women taking the pill accidentally become pregnant.

The results showed that even tiny amounts of both hormones — far lower relative to body size than what humans are exposed to — could disrupt development of the prostate gland.

About 2.8m tons of bisphenol is produced every year worldwide and it has been used in babies' drinks bottles and teats in addition to food packaging.

Roger Kirby, consultant urologist at St George's hospital, London, said the new research could help explain at least some of the reasons for the surge in prostate cancer rates.

"We are seeing more prostate cancer, and are also seeing it in younger people. So clearly there could be some environmental factor," he said.