

### **Men behind most unexplained infertility cases**

A study of 239 couples with unexplained fertility, published in the journal *Reproductive Biomedicine Online*, found high sperm DNA damage in 80 per cent of the couples trying to conceive. Currently, some 50,000 couples require fertility treatment in the UK every year, but up to one third of these are diagnosed with unexplained or idiopathic infertility, as tests are unable to find a cause for the problem. The researchers from Queen's University Belfast said the discovery will lead to better treatment for couples, saving them time, money and heartache.

For almost one third of couples, until now, there has been no obvious cause for infertility and these couples are given the diagnosis of 'unexplained fertility'. In our study we have now had a breakthrough which explains the cause of infertility for many of those couples. The study is also the first to show that the chances of having a baby after IVF is closely related to the amount of DNA damage a man has in each of his sperm. (TheFamilyGP.com)

### **Exposure to pollution may reduce fertility**

Couples with high levels of certain chemicals in their bodies took about 20% longer to conceive compared with those with lower exposures, says the study from the National Institutes of Health. That type of delay is similar to the effects of other factors known to reduce fertility, such as smoking, obesity and older age, according to the findings, published today in *Environmental Health Perspectives*. PCBs, or polychlorinated biphenyls, were widely manufactured from 1929 to 1979, with hundreds of uses, such as coolants and lubricants in electrical equipment, according to the Environmental Protection Agency. Although they're no longer manufactured, PCBs still may be present in older products, such as caulking, oil-based paint, floor finish and insulation. PCBs persist for years in the environment — in soil, water and the food chain — as well as in body fat, the EPA says. PCBs also are found in breast milk.

Researchers tried to contact more than 424,000 households, in order to find 500 couples who were going to try to conceive a baby within the next two months. The study followed the couples for a year, and followed women through the end of any pregnancies. Only 0.1% of couples contacted were planning to try to conceive in that time. Scientists asked couples to provide blood and urine samples before conceiving, as well as keep daily diaries, undergo frequent interviews and pregnancy tests.

Researchers measured levels of 63 environmental chemicals. Virtually everyone had detectable levels of PCBs and a breakdown product of the banned pesticide DDT, Louis says. The couple's chances of conceiving each month then were calculated and showed that the likelihood of a pregnancy fell by about 20% among men and women with high exposure to certain types of PCBs. Other environmental pollutants also were related to a lower chance of conceiving. Women with high levels of a flame retardant also had a 20% lower chance of conceiving. Men with high levels of a breakdown product of the pesticide DDT also had a 17% lower rate of conception, the study says. DDT has been banned in the USA since 1972, but is still used in other countries. (Liz Szabo, USA TODAY).

### **Cell phone exposure during pregnancy related to fetal brain development problems in babies**

Avoiding cell phone exposure during pregnancy may be a necessity in protecting your unborn child, according to Yale School of Medicine. According to a recent study, cell phone radiation may lead to brain development problems including hyperactivity in children amongst other things. "This is the first experimental evidence that fetal exposure to radiofrequency radiation from cellular telephones does in fact affect adult behavior," said senior author Dr. Hugh S. Taylor, professor and chief of the Division of Reproductive Endocrinology and Infertility in the Department of Obstetrics, Gynecology & Reproductive Sciences.

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A control group case study using pregnant mice exposed to an active but muted and silenced cell phone revealed more “hyperactive and had reduced memory capacity” in their offspring. The study measured brain electrical activity in adult mice exposed to the radiation as fetuses against those not exposed. Dr. Taylor’s study reveals that the development of neurons in the fetus pre-frontal cortex region is adversely effected, when exposed to cell phone use during pregnancy.

The dangers behind cell phone use are nothing new. Exposure to “radio frequency” (RF) has been a concern for almost 20 years. More concerning is the possible exposure to RF near the fetus. The results of the control study group revealed that even using an active phone around a fetus can be dangerous to the unborn child. Arguments can be made that the subjects used (mice) against the bombardment of frequency’s received (cell phones) was not in proportion, but the concern still exists.

If a muted, silenced cell phone can actively emit RF’s then it can still expose a fetus to the dangers caused through contact. The concern over whether or not this frequency can cause irreversible brain damage should be enough to eliminate the use of or exposure to cell phones during pregnancy. Quick Tips for Wellness: The safest way to protect your unborn child is to avoid cell phone exposure during pregnancy.

(<http://medicine.yale.edu/publications/medicineat Yale/may2012/news/advance/12479>)

\*These news in reproductive medicine were compiled and modified from the web site of the American Society for Reproductive Medicine