

Asthma linked to power lines

Exposure to magnetic fields increases risk

CHICAGO: Children whose mothers had high exposure to electromagnetic fields while pregnant may have an increased risk of developing asthma, US researchers said in a study that adds to an ongoing debate.

Many prior studies have failed to consistently show that chronic exposure to electromagnetic fields – from power lines and appliances such as microwaves ovens, hair dryers and vacuum cleaners – are harmful to human health.

But many of these studies required people to estimate their exposure levels over several years, says Dr De-Kun Li, senior research scientist at the Kaiser Permanente in Oakland, California, whose study appears in *Archives of Paediatrics & Adolescent Medicine*.

To get a more conclusive answer, Li designed a so-called prospective study in which 801 pregnant women wore monitors that measured their exposure to magnetic fields for 24 hours.

These monitors measured their exposure to low-frequency magnetic fields from electronics such as microwaves, hair dryers, fans, coffee grinders and fluorescent light bulbs, power lines, and transformer stations.

It did not monitor exposure to higher frequency electromagnetic fields generated by cellphones or cellphone towers.

The team used medical records to follow the women's children for 13 years. During the follow-up, 130 children, or 20.8% of study par-

This really needs to be studied.

– DR DE-KUN LI

ticipants, developed asthma.

They then compared exposure levels during pregnancy to rates of asthma and found that children whose mothers had the highest exposure levels – within the top 10% of women in the study – were 3.5 times more likely to develop asthma than those who were in the bottom 10%.

The risk for children whose exposure was somewhere in the middle – between 10% and 90% – was 75% higher than for those in the lowest exposure group.

For the average population, Li said, children of women whose exposure levels were in the range of the bottom 10% in the study would have about a 13.6% absolute risk of developing asthma. Women whose exposure was in the highest range would have about a 33% risk of having children who developed asthma over the 13-year study period.

Some 13% of children under age 18 have asthma, which is caused by malfunction of the respiratory organs and the immune system.

Li said it is not clear why exposure to power lines might increase the risk of asthma, but he said there are several possibilities.

"This really needs to be studied," Li said. — Reuters