

Leukaemia Risk and Ultrasound

Concerns arose in the early 1980s about potential links between ultrasound scans in pregnancy and potential increased risk of childhood leukaemia.

There has been little evidence that *in utero* diagnostic ultrasound tests are linked with an increased risk of childhood Acute Lymphocytic Leukaemia, ALL (Cartwright [1984](#), Kinnier [1984](#), Petridou [1997](#), Naumburg [2000](#), Shu XO [1994](#), [2002](#)), or Acute Non-lymphocytic Leukaemia, ANLL (Van Duijn [1994](#)), although Naumburg found a small increase in risk for ultrasound scans carried out in the second trimester of pregnancy. Dr Razum in Germany did a re-analysis of the Naumburg results and suggested that her data was consistent with the probability that a small proportion of cases of childhood leukaemia might be attributable to prenatal ultrasound exposure. Ultrasound exposure, *in vitro*, has been shown to cause membrane changes (Dinno MA [1989](#)), and some studies have shown an association between ultrasound exposure and left-handedness (Kieler H [1998](#), Salvesen [1999](#), [2002](#)), which could show that foetal development can be affected, possibly in ways that have not been looked at.

Although the risk levels are small and contested, ultrasound scans as a form of “baby TV” should not be routine, but be used for diagnostic or therapeutic use. There is concerning evidence of links between ultrasound scans and autism. The HPA states that there have been some reports suggesting possible neurological effects on the unborn child. The concern is that with souvenir scans the beam of ultrasound stays static over the baby's head for longer in order to get a sharp mug shot.

References:

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