Diagnostic Ultrasound, the cheapest tool of its kind, has the reputation of being among the safest methods of medical imaging. *Getting harmful is a matter of thresholds.* For instance cavitation occurs when Ultrasound is used for treatments. But diagnostic Ultrasound is different. Common sense tells that a temperature rise of 4 degrees Celsius would be harmful. Animal studies have shown that with increasing exposure time (several minutes for 2 degrees or so), even a smaller rise would suffice [1]. Uncertainties about local fluctuations, or about the operator not being knowledgeable enough have been suggested. *Epidemiological studies could directly inform if the prenatal ultrasound exposure is associated with postnatal outcomes.* What is known is that the hypothesis of the harmful effects of Ultrasound is based on a chain of inconsistent epidemiological studies. These can live on because of the delicate subject of pregnancy health care.

The hypothesis comes from a Norwegian Randomized Controlled Trial (RCT) [2], the unorthodoxy of which was to fail in confirming initial doubts of increasing Dyslexia and then turning to split data by sex and to present a final doubt of an increase of left-handedness in boys. To make sure, they tested five other traits. Our own RCT study [3] failed to confirm the association between prenatal ultrasound exposure and left-handedness: ODDS RATIO = 1.12, CI = (0.89-1.41). Another side in the failure is however a tendency of Randomized Controlled Trials on humans to get compromised, for ethical reasons. Much of the power was lost. Most importantly the hypothesis was not confirmed. - A meta-analysis of Ultrasound effects has been reproduced by Salvesen [4].

Final summary: Ultrasound cannot be regarded harmful because real neurological defects are not involved. As a rule left-handedness should be regarded normal.