Magnetic fields linked to rail cancers

Railway workers exposed to extremely low frequency magnetic fields have an elevated risk of certain blood cancers, new study findings suggest. In a study of more than 20,000 Swiss railway workers who were followed for 30 years, researchers found that certain workers' risk of myeloid leukaemia and Hodgkin's lymphoma climbed in tandem with their exposure to these fields. Train drivers, who had the greatest exposure, were nearly five times more likely to develop myeloid leukemia than station managers, the workers with the lowest exposure to magnetic fields. The study results, published online in the journal Occupational and Environmental Medicine, also revealed drivers were more than three times as likely to be diagnosed with Hodgkin's disease, a cancer of the lymph system. Drivers had the greatest exposure to low frequency magnetic fields, from spending long hours in train engine cabs. They had from 3- to 20-times the exposure of yard engineers, train attendants and station managers. The study authors noted that there was a large variation in the magnetic field strengths in different types of engines. They concluded the risk was to railway workers and not to the travelling public, recommending as a precautionary measure that new rolling stock should be designed to minimise magnetic field exposure. “Train passengers spend considerably less time in trains than the people with the occupations studied and their exposure levels and potential health risk are therefore negligible,” the researchers said.

- Dr Martiin Röösli and others. Leukaemia, brain tumours and exposure to extremely low frequency magnetic fields: cohort of Swiss railway employees, Occupational and Environmental Medicine, published online 24 May 2007; doi: 10.1136/oem.2006.030270 [abstract]. Scientific American. Global union prevent work cancer campaign.