**Motor neurone risk may be higher for pilots and welders: Workers exposed to electromagnetic fields are more likely to develop most common form of the disease**

* **Repeated exposure to low-frequency electromagnetic fields could increase risk**
* **ALS - the most common form of MND - causes weakness and wasting in the limbs**
* **Experts at Utrecht University in the Netherlands studied thousands of people**

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Workers exposed to electromagnetic fields in their jobs could be at risk of developing motor neurone disease, research suggests.

Aeroplane pilots, welders, electricity network engineers and factory workers may be more likely to develop amyotrophic lateral sclerosis (ALS) – the most common form of the disease.

Anyone who is repeatedly exposed to low-frequency electromagnetic fields – even tailors and seamstresses who lean over sewing machines all day – could be at risk.

ALS causes weakness and wasting in the limbs and people only tend to live for two to five years from first experiencing symptoms.

Aeroplane pilots may be more likely to develop amyotrophic lateral sclerosis (ALS)

Experts at Utrecht University in the Netherlands tracked 58,279 men and 6,573 women for 17 years.

Some 76 men and 60 women died of ALS during the study.

The researchers found that high levels of electromagnetic field exposure were largely confined to the men, and depended on their jobs.

Those whose jobs had exposed them to high levels of extremely low frequency electromagnetic fields were more than twice as likely to develop ALS as those who had never been exposed through their work, the study suggested.

The researchers, writing in the journal Occupational & Environmental Medicine, stressed their study had only demonstrated a trend, and had not proven cause and effect.

But study leader Professor Roel Vermeulen said: ‘Those whose jobs had exposed them to high levels of extremely low-frequency magnetic fields were more than twice as likely to develop ALS as those who had always been exposed to only background levels through their work.

‘Jobs with relatively higher extremely low-frequency electromagnetic field levels are for example electric line installer, repairers and cable jointer, welders, sewing machine operators and aircraft pilots.

‘These are essentially jobs where workers are placed in close proximity to appliances that use a lot of electricity.’

He said the effect of the environment appeared to be ‘substantial’, adding: ‘The present study adds evidence to previous studies that have suggested that extremely low-frequency electromagnetic fields is related to ALS risk.’

Professor Neil Pearce, from the London School of Hygiene and Tropical Medicine, said: ‘This study has much better information on exposure to magnetic fields than previous studies.

Welders, electricity network engineers and factory workers could also be at higher risk

‘It shows that the increased risk of ALS in electrical workers is most likely due to magnetic field exposure, rather than to electrical shocks.’

Professor Christian Holscher, from Lancaster University, said the results should be interpreted with caution, adding: ‘The effect of extremely low-frequency magnetic fields on ALS development is not clear.

‘The trend is only just statistically significant, and with such low numbers, it may well be a false positive.’

Brian Dickie, director of research development at the Motor Neurone Disease Association, said: ‘Any such effect is a very subtle one.

‘It does not mean that exposure causes motor neurone disease.’

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