International Association for Hearing Accessibility

IAHA Position on Neck Loops and Cardiac Pacemakers

IAHA recognises a concern expressed by some medical professionals of a potential for interference with cardiac pacemakers from the magnetic field that exists in very close proximity to the wiring of a neck loop. The concern is that during exposure to very high magnetic fields, a pacemaker's rhythm could theoretically be affected.

This is a very specific scenario and quite different from normal installations and relates to the fact that the neck loop itself is in very close proximity to the pacemaker.

While it has been difficult to find objective evidence of instances of pacemaker malfunction due to neck loops, we support the precautionary approach recommended by pacemaker manufacturers and clinicians for people with cardiac pacemakers.

Users should maintain a 15 cm (6 inch) distance between the pacemaker and the neck loop cable. Individuals may want to reposition the loop so that it is located on the opposite shoulder from the implant site to maintain the recommended separation.

'Ear hook' or 'silhouette' coils that hook over the ear are an alternative to neck loops for generating the required localised magnetic field for a hearing instrument, and they ensure adequate separation from a pacemaker.

Medtronic also provides additional advice in the event that interference were experienced with their devices 'It should be noted that in the event a cardiac pacemaker is affected, if the neck loop is turned off or moved away the implanted device will resume its normal mode of operation.[1]

[1] Medtronic CRDM Technical Support International West Standard Letter, Electromagnetic Interference (EMI), DOC001758 version 2.0