

**UPDATE: Threat to MRI**

**Uncertainty regarding scientific basis for occupational exposure limits set in EU  
Physical Agents Directive 2004/40/EC (EMF)**

We would like to bring to your attention the recent acceptance by both ICNIRP (International Commission on Non-Ionizing Radiation Protection) and the European Commission that the assumptions forming the scientific basis for the limits set in EU Physical Agents Directive (EMF) 2004/40/EC may not be correct.

On February 14-16, 2007 Dr. Steven Keevil attended in Milan, the ICNIRP workshop on "Current Trends in Health and Safety Risk Assessment of Work-related Exposure to EMFs", on behalf of the European Society of Radiology. ICNIRP Guidelines of 1998 are the basis upon which the EU Physical Agents Directive 2004/40/EC (EMF) set occupational exposure limits to electromagnetic fields.

During this workshop, statements by the Chairman of ICNIRP and by the European Commission representatives acknowledged the uncertainty regarding scientific basis of Directive 2004/40/EC. According to Professor Vecchia, Chairman of ICNIRP, the limits in the intermediate frequency range (500-1000 Hz) 'can be questioned' and Mr. Herbillon from the European Commission acknowledged that the suggestion that there were 'solid effects' at 500-1000 Hz was 'perhaps not right'.

These statements contradict the premise that the Directive 2004/40/EC protects workers against "established health effects". The balance of risks to workers against risks to patients is vital in respect of this Directive as MRI workers are exposed to these intermediate frequency ranges.

The MRI medical community has always maintained that there are no established health effects in switched gradient frequencies below the levels at which MRI manufacturers limit exposure for patient safety. However, until now their opinion has not been accepted by the European Commission.

Consequently, the clinical and research use of MRI is threatened by this legislation. It is an example of unnecessary and burdensome legislation being introduced to address concerns which can be avoided through responsible guidance to medical and service personnel. Prof. Vecchia acknowledged that the problem was caused by 'converting recommendations into legal limits'.



## European Society of Radiology

The deadline for the implementation of the Directive is April 2008. The European Commission policy officer, Mr. Herbillon, acknowledged that 'we are now in a system' and 'it is not easy to change'. Member States are already implementing the Directive, many ignorant of the social and economic implications of the legislation as these were never investigated by the European Commission.

The European Society of Radiology requests that, as a matter of urgency, the European Commission

1. Informs the Member States of the unintended consequences of the Directive, notably Ministries of Health as well as implementing ministries and agencies. They must be informed of the expert study into the impact of the Directive on MRI, and encouraged to delay implementation until these results are known (expected in October 2007).
2. Proposes an amendment to the legislation introducing a derogation for MRI.

With best regards,

A handwritten signature in black ink, appearing to be 'N. Gourtsoyiannis', written in a cursive style.

Prof. N. Gourtsoyiannis  
ESR President

A handwritten signature in black ink, appearing to be 'G. Krestin', written in a cursive style.

Prof. G.P. Krestin  
ESMRMB President

Vienna, February 26, 2007