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MRI Safety

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Medical Physicist, 의학물리사의 현황

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The role of medical physicists has become indispensable in modern medicine, bridging advanced technology with clinical practice to ensure both efficacy and safety in patient care. In the United States, the medical physics profession is firmly established with a standardized educational pathway, board certification system, and clear scope of practice across radiation oncology, diagnostic imaging, nuclear medicine, and MR safety. This system not only supports high-quality patient care but also guarantees professional recognition and accountability.

In contrast, Korea has made significant progress in radiation oncology and nuclear medicine, where medical physicists are formally recognized and contribute actively to patient safety and treatment optimization. However, the presence of medical physicists in MRI practice remains limited. While MRI plays an increasingly central role in diagnosis, therapy planning, and interventional procedures, systematic involvement of medical physicists is still underdeveloped in Korea.

Given the complexity of MR imaging, the potential for patient safety risks, and the necessity of image quality assurance, expanding the role of medical physicists into MR domains is both timely and essential. International collaboration, structured training programs, and certification systems tailored to MRI can help close the current gap.

While it may be difficult to present a perfect example or a definitive pathway, this presentation aims to provide a brief overview of the current status of medical physicists in the USA and Korea, with the hope of sparking discussion on how best to integrate their expertise into MRI practice in the future.

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