



## ADVICE TO CHIROPRACTORS ON THE IONISING RADIATION (MEDICAL EXPOSURE) REGULATIONS 2000

1. In 1997 the Council of the European Union (EU) issued a directive that came into force in the United Kingdom on 13 May 2000 through the provisions of the Ionising Radiation (Medical Exposure) Regulations 2000 [IR(ME)R]. Details of the enforcement agencies are as follows

England

IRMER Notifications Officer  
Healthcare Commission  
Finsbury Tower  
103-105 Bunhill Row  
LONDON EC1Y 8TG  
Tel: 020 7972 3891

Scotland

Dr Arthur Johnston  
Medical Division, Scottish Executive  
St Andrews House  
Waterloo Place  
EDINBURGH EH1 3DG  
Tel: 0131 244 2779

2. The purpose of the directive is to lay down the general principles for the protection of individuals in relation to radiographic exposure. The provisions of IR(ME)R apply to exposures of patients as part of their medical diagnosis and treatment, occupational health surveillance, health screening, research and medico-legal procedures. All chiropractors need to be aware of IR(ME)R and must comply with the relevant requirements.
3. IR(ME)R define four duty holders
  - the employer who provides the framework for radiation protection for the patient with the provision of standard operating procedures and ensures that clinical audit is carried out
  - the practitioner who justifies the individual medical exposure
  - the referrer who provides sufficient relevant clinical information on the patient to enable a justification of the medical exposure
  - the operator who undertakes the practical aspects of the medical exposure.
4. Within the National Health Service the above four groups are usually different people, the employer being the NHS, the practitioner being the radiologist, the referrer being the clinician and the operator being the radiographer. **Chiropractors may perform all four duties and therefore may have much wider responsibilities in this regard than other health professionals.**

5. **Section 4 – Procedures and protocols.** Written protocols for every type of standard radiological practice must be established for each piece of equipment. Chiropractors must define the exposures to deliver the optimised dose for their equipment.
6. Member states have to ensure that recommendations concerning referral criteria for radiographic exposure for health care purposes including radiation doses are available to referrers. The fifth edition of the Royal College of Radiologists publication "Making the best use of a Department of Clinical Radiology" has been adopted by the EU as the basis of European referral guidelines.
7. The General Chiropractic Council endorses these guidelines as the basis of good practice in chiropractic radiology. This has considerable implications for chiropractors: it is particularly relevant in terms of measurements prior to treatment. Chiropractors will need to justify any radiographs taken to undertake measurements that are not covered by the radiology guidelines, with particular reference to how the measurements affect treatment. The legislation also identifies the obligation to use non-radiation based imaging procedures where appropriate and possible. Chiropractors must consider whether they should be referring patients for MRI instead of undertaking radiographs in many clinical situations. There is also in the Regulations an obligation to undertake audit of the radiation exposures and in particular the justification process.
8. **Section 6 - Justification.** The Regulations divide the key people in the justification process into the referrer and the practitioner and it is quite clear that both should be involved in the justification process. The referrer requests the investigation and the practitioner authorises the investigation. Both have a responsibility in the justification process of the investigations, the referrer by providing appropriate medical records and clear diagnostic reasons for the investigation, and the practitioner by justifying the value and appropriateness of the investigation. The exposure is carried out under the clinical responsibilities of the practitioner. **In the majority of cases chiropractors will be both the referrer and the practitioner.** They thus have a double liability for the justification process.
9. The principle of justification is that medical exposures shall show sufficient benefit so that the potential diagnostic and therapeutic benefit is greater than the individual detriment that the exposure might cause. The key requirement of this section is that each individual medical exposure should be justified in advance.
10. In order to justify a medical exposure as showing sufficient net benefit, the practitioner must give appropriate weight to the following matters
  - the specific objectives of the exposure and the characteristics of the individual involved
  - the total potential diagnostic or therapeutic benefits, including the direct health benefits to the individual and the benefits to society, of the exposure
  - the individual detriment that the exposure may cause
  - the efficacy, benefits and risk of available alternative techniques having the same objective but involving no or less exposure to ionising radiation

11. In the case of a female of childbearing age, the practitioner must enquire if she is pregnant, or breastfeeding if relevant. It is the employer's responsibility to ensure that procedures are in place to ensure this. It would not normally be justifiable for any chiropractic radiograph to be undertaken if pregnancy cannot be excluded.
12. **Section 7 - Optimisation.** All doses due to radiographic exposure for health care purposes should be kept as low as reasonably practicable, consistent with obtaining required diagnostic information. Member states are required to promote the establishment and use of diagnostic radiation dose reference levels for radiodiagnostic examinations. Chiropractors will be required to define what their dose reference levels are for the optimisation of exposures and these should be within nationally recognised levels. The optimisation process should include the selection of equipment, consistent production of adequate diagnostic information and the practical aspects of quality assurance and quality control. In this section it is particularly pertinent that chiropractors should ensure that their equipment is appropriate and that the exposure delivered is adequate to provide an examination of adequate quality, but keeping the radiation dose within the reference levels. The Regulations require the employer to ensure that a clinical evaluation of the diagnostic outcome for each exposure is recorded.
13. **Section 10 - Equipment.** The directive requires that member states shall take such steps as they may consider necessary with a view to avoiding unnecessary proliferation of radiological equipment. Member states shall ensure that all radiological equipment is kept under strict surveillance regarding radiation protection and an up to date inventory shall be available to the competent authorities. Section 10 of IR(ME)R 2000 covers the requirement for an inventory. Under separate regulations, the holder of the radiological installation (ie the employer) must ensure that acceptance testing is carried out. An appropriate quality assurance programme is also required. This is a requirement of the holder of the radiological installation, i.e. the employer but again, this is likely to be the chiropractor. **The chiropractor is likely to be responsible therefore for all stages of this process. Even when chiropractors are not the employer, the GCC Standard of Proficiency requires them to ensure that the relevant regulations are complied with.**
14. **Section 11- Training.** The Regulations require that practitioners and those involved in identifying x-ray exposures have adequate theoretical and practical training for the purpose of radiological practices. Appropriate requirements are included in the GCC's Indicative Syllabus for Degrees in Chiropractic and the provision is assessed as part of the process of recognition of qualifications under the provisions of the Chiropractors Act 1994. Section 4 of IR(ME)R requires the employer to ensure practitioners and operators undertake appropriate continuing education and training after qualification.

## **Further advice and services**

Chiropractors may wish to refer to the Royal College of Radiologists publication "Making the best use of a Department of Clinical Radiology", referred to above, and the Department of Health regulations available at [www.legislation.hmso.gov.uk/si/si2000/20001059.htm](http://www.legislation.hmso.gov.uk/si/si2000/20001059.htm).

Guidance is also available from the British Chiropractic Association (BCA).

The BCA Guidelines provide a wealth of technical information but they must be read in conjunction with all of the above advice from the GCC and the forthcoming Joint Health and Safety Executive and Health Department's guidance.

The BCA also provides access for its members to an audit service for chiropractors in respect of radiological equipment and practice.