

2020



ASMIRT

MRI Level 1

Your profession. Your future.

Australian Society of Medical Imaging and Radiation Therapy
Contact us at info@asmirt.org or call us on +61 3 9419 3336

asmirt.org



There are a number of protected titles for medical radiation practice. They include:

Medical Radiation Practitioner (MRP)

Diagnostic Radiographer (DR)

Medical Imaging Technologist (MIT)

Radiographer

Nuclear Medicine Scientist (NMS)

Nuclear Medicine Technologist (NMT)

Radiation Therapist (RT).

For the purposes of our documentation we use the broad descriptor Medical Radiation Practitioner (MRP) recognising that it covers a range of areas of practice.



info@asmirt.org
www.asmirt.org
PO Box 16234,
Collins Street West,
VIC 8007, Australia
+61 3 9419 3336



Contents

Magnetic Resonance Imaging

Introduction 4

Credentiailling of the MRI Practitioner 4

Legislation 4

Certification Policies 5

Certification Eligibility 5

 Level 1 Application 5

 Level 1 Renewal 6

 Level 2 Application 7

 Level 2 Renewal 7

 Level 2 Application Procedures 8

 Signatory on Part B of Level 1 and Level 2 Certification Applications 11

Certification Length 11

Certification Renewals 11

 Extensions 12

 Certification Entitlements 12

Certification Procedures 12

 Assessments 13

 Incorrect Applications 13

 Extension Applications 13

 Current Application Forms 13

MRI Level 1 Certification Part A: Theoretical Component – Written Examination 14

MRI Level 1 Certification Examination 15

 Examination Venues 15

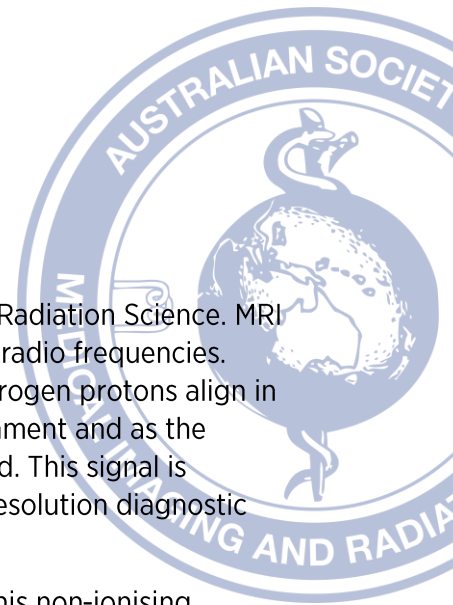
 Examination Supervisor 15

 Special Consideration 15

 Supporting Documentation 16

FAQs 17





Magnetic Resonance Imaging

Introduction

Magnetic Resonance Imaging (MRI) is an imaging modality within Medical Radiation Science. MRI employs the use of high strength homogenous magnetic fields and pulsed radio frequencies. When the human body is placed within this magnetic field, processing hydrogen protons align in the field direction. Radio frequency waves are introduced to alter this alignment and as the hydrogen protons realign with the main magnetic field, a signal is produced. This signal is received by radiofrequency coils and converted via a computer into high resolution diagnostic images.

The ability to create anatomical, pathological and functional images with this non-ionising radiation modality has led to rapid expansion and development of this modality. The increasing availability and constant evolution of MRI has intensified the community and professional demand for high levels of technology and professional standards.

The MRI practitioner is required to make decisions regarding the nature and extent of individual procedures and, when requested, to provide medical practitioners with informed opinions regarding the results of these procedures. The MRI practitioner is responsible for the welfare of patients whilst they are in their care and must be familiar with all emergency procedures associated with MRI.

The ASMIRT supports that all MRI performed on humans whether in clinical or research centres be undertaken by MRI practitioners that have undertaken ASMIRT certification.

Certification of the MRI Practitioner

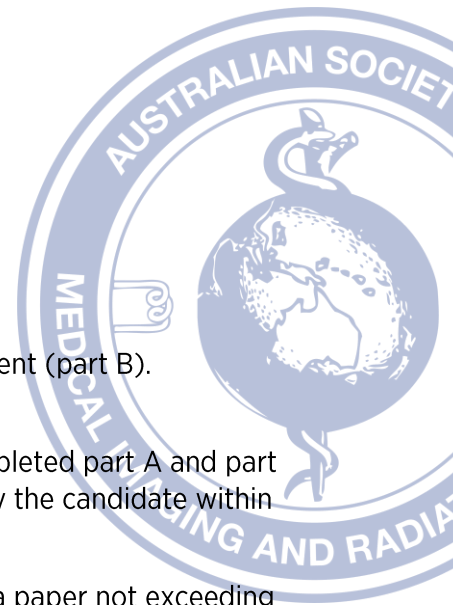
In early 1997, an initial steering committee of radiographers practicing MRI, under the auspices of the then Australian Institute of Radiography (AIR) began formulating certification levels for those radiographers working in this imaging modality. In January 1998, this clinical specialist committee became a formal advisory panel of the AIR, under the Memorandum and Articles of Association of this body, and in September of that year the first Level 1 Certification examinations were conducted throughout Australia. The first Level 2 Certifications were awarded in March 1999. In 2019, the ASMIRT Board created Committees and reference groups comprising of volunteers who are the experts in particular areas of interest and expertise that the Board utilise to assist when advocating for the profession and patients, and to better assist and inform our members. As such the Education Committee and MRI reference group (MRIRG) was formed.

The ASMIRT Education Committee and MRI reference Group now sets and maintains the standards for certification of MRI practitioners.

Legislation

There is currently no legislative requirement to be registered as an MRI practitioner in Australia, however it is recommended that MRI practitioners possess a specific level of training or experience prior to operating MRI equipment. ASMIRT recommends that any radiographer undertaking MRI holds Level 1 Certification





Certification Policies

Certification Eligibility

Level 1 Application

Level 1 Certification comprises a theoretical (part A) and a clinical component (part B). Certification is valid for a 3-year period.

MRI Level 1 Certification is awarded to persons who have successfully completed part A and part B components. Both part A and part B components must be completed by the candidate within a 3-year period.

Part A – Theoretical Component. Is a written examination, which involves a paper not exceeding 165 multiple-choice questions covering topics such as: Safety, Patient Screening, Equipment, Pulse sequences, Basic theory of MRI, MRI Anatomy and Pathology.

For further information regarding the MRI Level 1 Certification Examination, please see Page 13 of this document.

Part B – Clinical Component. Requires the candidate’s supervisor to acknowledge completion of 300 clinical MRI examinations. These 300 examinations must have taken place within a 12-month period. This period must have occurred within the 3 years prior to application submission.

Table 1.

MRI Level 1 Certification Requirements.

	Eligibility Requirements	Time to Acquire	Certification Duration	Extension
Level 1 Application	Part A - Undertake Level 1 Certification Examination. Part B - Complete 300 clinical MRI examinations.	Part A and Part B must be completed within a 3-year period. Application submission must occur within 3-years of sitting Part A examination.	3-year expiry for Level 1 Certification.	N/A
Level 1 Application Lapsed	If application submission does not occur within 3 years of undertaking Level 1 Certification Examination, applications must re-sit Level 1 Certification Examination.			





Level 1 Renewal

Renewal of Level 1 Certification requires completion of the clinical component only. Clinical component requires the candidate’s supervisor to acknowledge completion of 900 clinical MRI examinations. These 900 examinations must have taken place within a 3-year period (minimum of 300 clinical MRI examinations per year). This 3-year period must have occurred immediately prior to application submission.

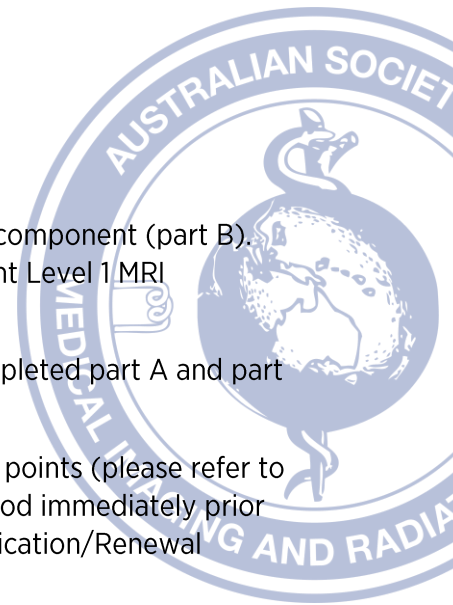
Renewal submissions must be received by the Secretariat no later than 6 months after expiry of previous MRI Level 1 Certification. If this timeline is not adhered to, Certification will be deemed as expired, and participants will be required to reapply and complete both part A and part B components again.

Table 2.

MRI Level 1 Certification Renewal Requirements.

	Eligibility Requirements	Time to Acquire	Certification Duration	Extension
Level 1 Renewal	Complete 900 clinical MRI examinations.	900 clinical MRI examinations must be completed within a 3-year period. A minimum of 300 clinical MRI examinations must be completed every 12-months within this 3-year period. This 3-year period must have occurred immediately prior to application submission.	As for Level 1 Application. 6-month grace period for lapsed Level 1 Certification.	Apply before Level 1 Certification expiry.
Level 1 Renewal Lapsed	Re-sit Level 1 Certification Examination. Complete 300 clinical MRI examinations.	Must be completed within a 3-year period.	As for Level 1 Application.	N/A





Level 2 Application

Level 2 Certification comprises a points component (part A) and a clinical component (part B). To be eligible to apply for Level 2 Certification, applicants must hold current Level 1 MRI Certification. Certification is valid for a 3-year period.

MRI Level 2 Certification is awarded to persons who have successfully completed part A and part B and have had 3 years full-time equivalent MRI experience.

Part A – Points Component. Evidence of accrual of 100 MR-related Level 2 points (please refer to MRI Level 2 Points Table). The points must be accrued over the 3-year period immediately prior to application date. The points must be submitted on the MRI Level 2 Application/Renewal Points Accrual Log on page 3 of the Application Form or can be found at

https://www.asmirt.org/asmirt_core/wp-content/uploads/ASMIRT-MRI-Certification-Level-2-Renewal-July-2023.pdf

Part B – Clinical Component. Requires the candidate’s supervisor to acknowledge completion of 1000 clinical MRI examinations. These 1000 examinations must have taken place within a 3-year period. This period must have occurred immediately prior to application submission.

Table 3.

MRI Level 2 Certification Requirements.

	Eligibility Requirements	Time to Acquire	Certification Duration	Extension
Level 2 Application	Part A – Accrue 100 MR-Related Level 2 Points. Part B – Complete 1000 clinical MRI examinations.	Part A and B must be completed over the 3-year period immediately prior to application submission.	3-year expiry for Level 2 Certification.	N/A

Level 2 Renewal

Renewal of Level 2 Certification requires completion of a points component (part C) and a clinical component (part D).

Part C – Points Component. Evidence of accrual of 45 MR-related Level 2 points (please refer to Renewal MRI Level 2 Points Table). The points must be accrued over the 3-year period immediately prior to application date. The points must be submitted on the MRI Level 2 Application/Renewal Points Accrual Log at https://www.asmirt.org/asmirt_core/wp-content/uploads/ASMIRT-MRI-Certification-Level-2-Renewal-July-2023.pdf

Part D – Clinical Component. Requires the candidate’s supervisor to acknowledge completion of 1000 clinical MRI examinations. These 1000 examinations must have taken place within a 3-year period. This period must have occurred immediately prior to the application.

Renewal submissions must be received by the Secretariat no later than 6 months after expiry of previous MRI Level 2 Certification. If this timeline is not adhered to, Level 2 MRI Certification will be deemed as expired. Participants have the opportunity to submit a renewal for Level 1 MRI Certification Renewal within 6 months of MRI Level 2 expiry.



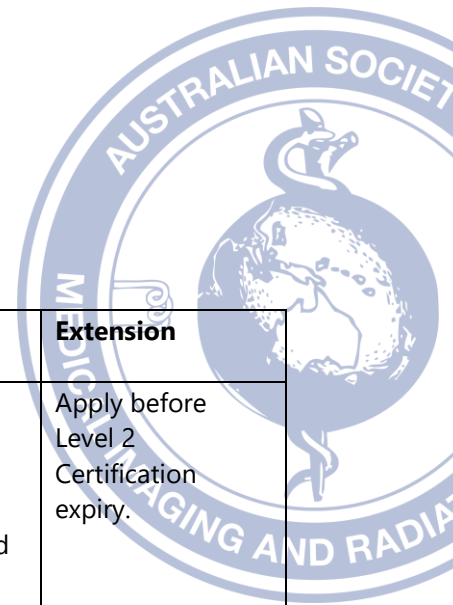


Table 4.

MRI Level 2 Certification Requirements.

	Eligibility Requirements	Time to Acquire	Certification Duration	Extension
Level 2 Renewal	<p>Part C – Accrue 45 MR-Related Level 2 Points.</p> <p>Part D – Complete 1000 clinical MRI examinations.</p>	<p>Part C and D must be completed over the 3-year period immediately prior to application submission.</p>	<p>As for Level 2 Application.</p> <p>6-month grace period for lapsed Level 2 Certification.</p>	<p>Apply before Level 2 Certification expiry.</p>
Level 2 Renewal Lapsed	<p>Revert back to MRI Level 1 Certification for 6 months. Applicants must reapply for MRI Level 1 Certification Renewal within this 6-month period.</p> <p>If renewal is not received, applicants will be required to re-sit the MRI Level 1 Certification Examination.</p>			

Application Procedures

MRI Level 2 Certification/Renewal Applications should be submitted electronically to mri@asmirt.org .

The documentation must contain scanned copies/electronic versions of:

1. Application Form
2. Completed MRI Level 2 Application/Renewal Points Accrual Log
3. Accurately numbered Folders with labelled and referenced Files/ Documents within each folder
 - 1) Clinical Experience
 - 2) MRI Education Courses (see example framework below)
 - 3) MRI Presentations
 - 4) Attendance MRI Conference
 - 5) Publications
 - 6) Other related Post-Graduate Courses
 - 7) Other Related MRI Activities

For example: Create Folder numbered as above.

2. MRI Education Courses

2.1 Tertiary post grad MRI course- University Masters in MRI (Insert degree name), Units passed (academic transcript)

2.2- Minor Course- give examples

3. MRI Presentations

3.1 Major International Conference – RSNA 2023



3.2 Minor Conference - RADAIM 2019

Any submitted Documentation that is not clearly labelled and identified will not be considered.

All original documentation must be retained by the applicant for the duration of the entire certification program and any renewal periods.

Points claimed by the applicant will be allocated at the discretion of the education committee. Evidence of all points claimed must be documented on submission.

Only current Application Forms and Points Accrual Log will be accepted. Forms are available at <https://www.asmirt.org/certification/> .

Applicants who submit hard copies will be asked to resubmit electronically.

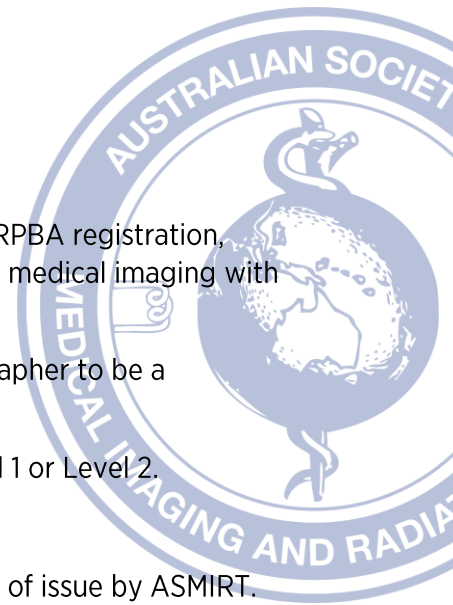




Figure 1.

Process of Application for MRI Level 1 and 2 Certification.





Signatory on Part B of Level 1 and Level 2 Certification Applications

The Supervisor MRI Radiographer is defined as a practitioner who holds MRPBA registration, appropriate radiation licenses and has a minimum of 5 years' experience in medical imaging with at least 2 years of full time equivalent supervisory MRI experience.

These criteria are the minimum requirements for a Supervisor MRI Radiographer to be a signatory on Part B of Level 1 and Level 2 Certification applications.

Supervisors are preferably practitioners who hold MRI certification at Level 1 or Level 2.

Certification Length

Level 1 and Level 2 Certification certificates have a 3-year expiry from date of issue by ASMIRT. Renewed Level 1 and Level 2 Certification certificates will coincide with the original date of issue and will also have a 3-year expiry.

Practitioners who pass the theoretical written examination (part A) have a 3-year period to apply for their MRI Level 1 Certification.

Certification Renewals

Notification of a forthcoming Certification expiry will be emailed 4 months prior to the expiry date. This email will contain a link to the MRI policies and procedures/renewal guidelines and application form. Renewals will only be sent to practitioners who are current financial members of ASMIRT (this includes Voting Members and CPD subscribers) and is dependent on a registered email address being maintained by the member.

If the practitioner fails to return the renewal application form for Level 1 or 2 Certification, a final notice will **NOT** be issued. Practitioners must ensure that their details are current and up to date in their member profile. Please note renewal notices are not sent to non-ASMIRT members, nor non-ASMIRT CPD subscribers.

If practitioners neglect to renew their Certification for Level 1 or 2 within 6 months of the expiry date, their certification will be deemed lapsed.

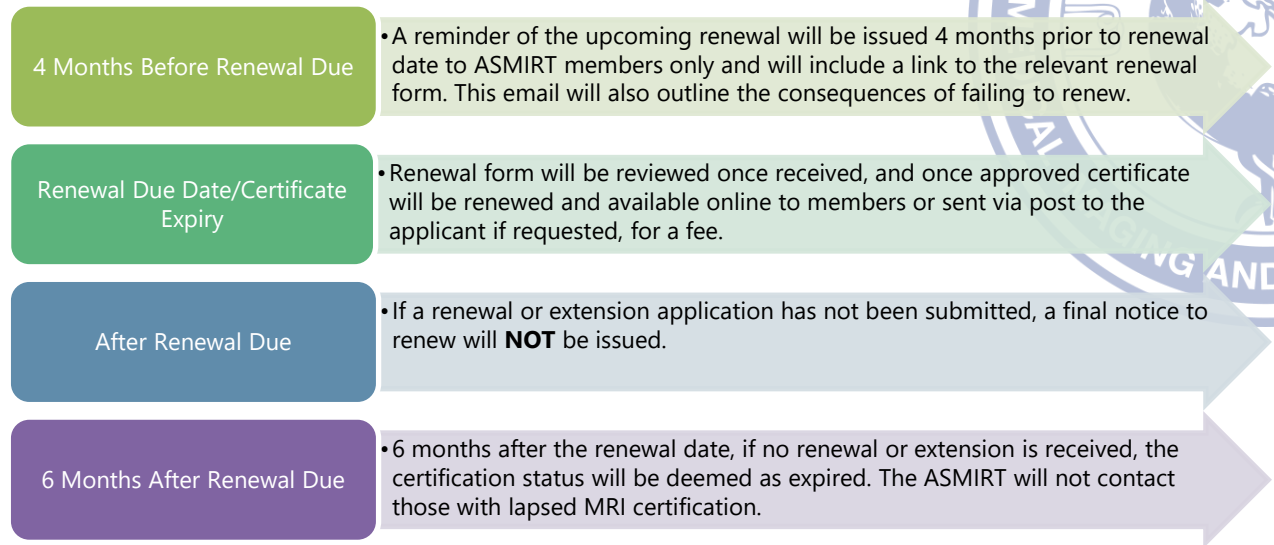
Practitioners with lapsed Level 1 or Level 2 Certification are expected to follow the procedures outlined under Certification Eligibility. Lapsed certification cannot be re-instated without the candidate correctly following all of the outlined criteria for a Level 1 Certification application (see Page 5 of this document).





Figure 2.

Outline of the Renewal Process for MRI Level 1 and 2 Certification.



Extensions

Practitioners who are unable to fulfil the requirements of renewing their Level 1 or Level 2 Certification before the renewal due date, are eligible to apply for an MRI Certification Extension. Supporting documentation must be attached to the application for review (Doctor's certificates, letter from employer, Statutory Declaration etc).

Extension applications will be assessed on a case-by-case basis. The extension period granted is at the discretion of ASMIRT.

Certification Entitlements

Practitioners who progress to a Level 2 Certification will have their Level 1 Certification run concurrently for the duration of their Level 2 Certification. Level 1 renewal form is not required. Please note that practitioners will not receive a Level 1 certificate while Level 2 is current, despite being renewed.

Practitioners, who fail to meet the requirements of their Level 2 Certification renewal or decide not to continue renewing their Level 2 Certification, must apply for renewal of their Level 1 Certification. This renewal will not be treated or assessed any differently to standard Level 1 renewals.

Certification Procedures

Assessments

Level 1 Certification applications and renewal applications are received by the Secretariat and forwarded for assessment. This process can take up to 8 weeks from the date that the Secretariat receives a practitioner's application. A Level 1 application will be dated from the date that the application was approved by ASMIRT. Level 1 renewal applications will be dated from the original date that the application was approved by ASMIRT.



Level 2 Certification applications and renewal applications are received by the Secretariat and sent for individual assessment. This process can take up to 8 weeks from the date the Secretariat receives the practitioner's application. A Level 2 application will be dated from the date that the application was approved. Level 2 renewal applications will be dated from the original date that the application was approved by ASMIRT.

Level 2 applications and renewal applications will not be processed unless the ASMIRT MRI Level 2 Application/Renewal Points Accrual Log cover sheet has been filled in correctly and submitted electronically with the supporting documents.

Incorrect Applications

Practitioners who provide incorrect information on any application form will be emailed and / or have their application returned to them with notification querying the information provided and a list of information that needs to be reviewed by the practitioner and the Supervisor.

Extension Applications

Applications for extensions to Level 1 and 2 are received by the Secretariat and forwarded to the for review and assessment. This process can take up to 6 weeks and practitioners will be notified by email of the outcome, and extension time granted if applicable.

Current Application Forms

Practitioners must ensure that current application forms are submitted to ASMIRT, or applications will not be accepted.





MRI Level 1 Certification

Part A: Theoretical Component - Written Examination

[MRI Level 1 Certification Examination](#)

The theoretical written examination involves a paper not exceeding 165 multiple-choice questions covering topics such as: Safety, Patient Screening, Equipment, Pulse sequences, Basic theory of NMR, MRI Anatomy and Pathology.

The approximate percentage of questions (rounded down) related to each module is listed below:

- Part A: Hardware and Instrumentation – 15%
- Part B: Imaging Procedures and Relative Anatomy/Pathology – 30%
- Part C: Patient Care and Safety/Contrast Media – 15%
- Part D & E: Pulse Sequences/Artefacts & Physics - Physical Principles – 40%

To be successful in the theoretical written examination, an overall pass requires 75% or more correct answers overall, with no less than 65% in any one section. Failure to score 65% in every section will result in an overall fail mark.

After the conclusion of the examination, the results are tabled and undergo rigorous scrutiny.

MRI Level 1 Certification Examination results are emailed to candidates 2 weeks post examination. The email will contain correspondence outlining a pass or fail result and candidates who fail receive a breakdown of their results for each section presented in the following form (see Table 1).

Table 1.

Example of results breakdown provided to candidates who fail the theoretical written examination.

Overall Score	70.90% - Fail
Section A	85.00%
Section B	74.00%
Section C	80.00%
Section D	61.42% - Fail

Pass score > 85% - High pass

Pass score 76-85%- Credit

Pass score 65-75%- Section Pass

Fail Score 60-64% - Close but needs more study

Fail Score 50 -<60% need a lot more study

Fail Score < 49% need a lot more study





Certification Examination Process

- The certification exams are held several times a year.
- The dates for the examination will be advertised at <https://www.asmirt.org/certification/>
- After completing the online registration process you will receive an email detailing the examination process.
- Examinations are held online, the date and time of your examination to be determined in collaboration with your examination supervisor.

Exam Venue

Examination venues must be an officially sanctioned venue eg. a workplace under the direct supervision of an examination supervisor. Supervisors are required to closely supervise candidates and be present in the examination room whilst the examination is in progress.

If you are unable to access your workplace for the examination, contact certification@asmirt.org for advice.

Examination Supervisor

Examination Supervisors must hold employment from an approved occupational group (e.g. the occupational groups approved to endorse Australian passport photographs). Supervisors should not have any direct professional or personal relationship with the candidate. Where possible they should not be their direct supervisor. They must not be related to the candidate by birth, marriage, de facto or in a relationship, or live at the candidates' address. The examination supervisor must be approved by ASMIRT. Examination supervisors must sign the supervisor's declaration form acknowledging commitment to upholding the integrity of the examination process.

By signing the supervisor's declaration, examiners are agreeing to ensure that the examinations are conducted fairly, ethically and professionally. It is an expectation that as a supervisor, these principles are upheld, and the integrity of the certification examinations are maintained.

Special Consideration

On the day of the examination

If a candidate experiences an extenuating circumstance such as illness preventing the undertaking of the examination, they should contact ASMIRT in writing within 24 hours of the scheduled examination.

If you commence the examination, you are ruled to be fit. Special consideration ***will not apply***, and your result will be upheld. If you are unwell or unlikely to perform at your best, you should contact ASMIRT prior to the exam date. If you are unwell on the day of the examination, **DO NOT SIT THE EXAM**. Candidates may be considered for a refund.





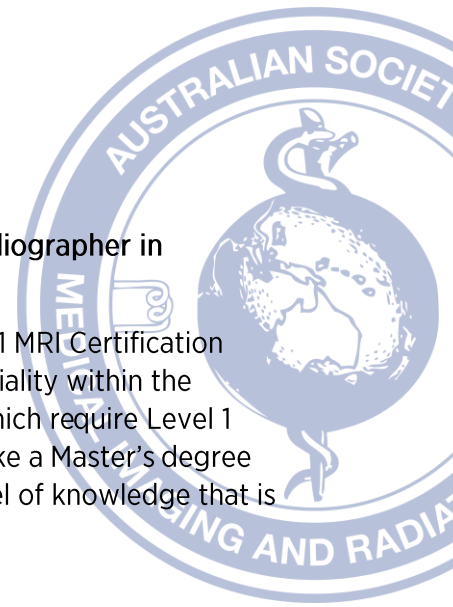
Supporting documentation

Candidates will need to provide one or more of the following documents to support their application for refund consideration:

- Medical certificate or letter from a medical professional,
- Death notice or certificate and evidence of relationship,
- Police report,
- Statutory declarations from employer or relevant people,
- Notification from:
 - Defence services,
 - Juries Commissioner's Office,
 - Emergency service organisations such as the Country Fire Authority.

Medical/professional certificates must state that candidates were unfit to sit the examination or complete work for assessment on or before the relevant date and cannot be signed by a member of the candidate's family.





FAQs

Do I have to sit the MRI Certification Examination to work as an MRI radiographer in Australia?

No, however passing the examination and being part of the ASMIRT Level 1 MRI Certification Program is an indication of your knowledge and commitment to your speciality within the Medical Imaging profession. There are some departments and practices which require Level 1 Certification prior to employment. This Certification is not a qualification like a Master's degree which has no clinical requirement, but rather a program that ensures a level of knowledge that is measurable and common across Australia.

How much study do I have to do to pass the examination?

The examination is designed to test your clinical and academic ability. It is an indication of a knowledge base when measured against your colleagues. A study approach similar to any advanced program is suggested.

What percentages of candidates pass the examination?

This varies slightly, but on average more than 60% of candidates pass each examination. ASMIRT does not keep records on candidates who re-sit examinations.

Do I have to join the 3-year Certification Program?

No, this is not a requirement as you may decide that passing the examination is adequate to demonstrate your abilities. There is however a limited time after passing the examination to join the program. If you choose not to join the Certification Program within the 3-year time period and change your mind down the track, you may be required to re-sit the Level 1 examination again.

Why do I have to renew my Certification?

The program is designed to ensure that you complete a certain number of clinical MRI examinations within a time period to maintain your skill and knowledge base. We encourage practitioners to maintain their Certification to demonstrate their specialist professional practice standard. If you choose not to renew your Certification after the 3-year time period, you will need to commence the process again from the Level 1 examination and clinical MRI examinations.

Why are the points needed to gain Level 2 MRI Certification different from normal CPD credits?

The Level 2 Certification program is only awarded to those imaging specialists who have dedicated a considerable amount of time and effort and hold a certificate level which could be described as "real experts" in their chosen field.

I have already performed over the 300 clinical MRI examinations over a 6-month period. Is my supervisor able to sign my application form for the 6-month period, or do I have to wait for the 12 months to lapse before I submit my application?

300 clinical MRI examinations will satisfy the clinical component criteria. You can submit your application signed off by your supervisor as soon as you have achieved a successful result in your theoretical component.





I am the Chief CT Radiographer running an MRI practice and would like to undertake the MRI Certification. As I am the “Signatory”, whom can I get to sign Part C as ‘supervisor’ for the clinical component? My CEO is a Radiographer but has no MRI experience and there is only one other MRI Radiographer, whom I supervise. Can I have our Radiologist sign part C?

It can be signed off by a supervising Radiologist, Chief Radiographer or an appropriate Manager. Evidence, such as RIS data should be available to substantiate the claim.

What do I do if I think that the examination result is wrong?

All examinations and subsequent results are reviewed and checked thoroughly prior to release on the website. If you have queries regarding your examination, please contact the ASMIRT secretariat office.

Can I sit the examination abroad?

Yes, examinations can be undertaken overseas providing that the examination venue is an officially sanctioned venue eg. a workplace under the direct supervision of an examination supervisor. Supervisors are required to closely supervise candidates and be present in the examination room whilst the examination is in progress and must also be officially sanctioned as an approved ASMIRT supervisor. It is recommended that examinations are undertaken in Australia, to ensure that you have access to stable internet and the ASMIRT support team during the course of the examination.

How do I improve my chances of passing the exam?

History has shown us that forming a study group, finding a mentor and practising as many questions as you can, will improve your outcome.

How many times can I sit the examination?

The maximum number of times you can sit this examination consecutively is 3. We recommend that you wait 6 months if your third attempt is not successful and seek assistance with your study prior to attempting your next examination.

