



# GRADUATE DIPLOMA CARDIAC ELECTROPHYSIOLOGY

WORLD CLASS, ACCREDITED QUALIFICATION

10759NAT

## Online learning

A comprehensive overview of all facets of contemporary cardiac electrophysiology, from cellular physiology to advanced mapping techniques with an emphasis on the analysis of intracardiac recordings.

Theoretical and practical skills endow participants with the ability to perform any diagnostic or invasive electrophysiology (EP) procedure, from syncope studies to atrial fibrillation ablation procedures in any laboratory in the world.

- > **100% online course**
- > **Self-paced learning**
- > **On-demand lectures**
- > **Case studies**
- > **Hands-on demonstrations**
- > **Live-streamed workshops**
- > **Personal one-on-one tutorials**
- > **Lifelong access to course content**

## Who should attend?

- > **Cardiac physiologists**
- > **EP fellows**
- > **EP registrars**
- > **Physician assistants**
- > **Cardiac technicians/technologists**
- > **EP nurses/practitioners**
- > **Other allied professionals interested in cardiac EP**

## About CEPIA

The Cardiac Electrophysiology Institute of Australasia is an independent Registered Training Organisation (RTO) providing education and training of medical professionals in EP throughout the world.

Using up-to-the-minute lectures, relevant hands-on demonstrations and rigorous academic and practical assessment, CEPIA strives to provide the ultimate teaching programme and aims to set the industry benchmark for educational qualifications.

Supported by:



**Medtronic**



## Objectives

To achieve comprehensive knowledge of the:

- > technical and clinical concepts of cardiac EP
- > role of EP in managing patients with bradyarrhythmias and tachyarrhythmias
- > recognition and differentiation of bradyarrhythmias and tachyarrhythmias
- > aetiology, features, progression, prognosis and EP characteristics of bradyarrhythmias and tachyarrhythmias
- > indications, risks and treatment methods of bradyarrhythmias and tachyarrhythmias
- > mechanisms of supraventricular and ventricular arrhythmias, electrophysiological diagnostic manoeuvres, ablative and mapping techniques
- > principles, methods and biophysics of ablation
- > endpoints, success and recurrence rates of pharmacologic and ablative treatment methods.

## Coursework includes:

- > Cardiac anatomy and physiology
- > Catheters, equipment and set up techniques
- > Pacing protocols, refractory periods and activation patterns
- > EP characteristics and diagnosis of sinus and AV node dysfunction
- > Cardiac pharmacology
- > Theories of reentry, automaticity, triggered activity, concealed conduction, gap phenomena and entrainment
- > Diagnostic pacing manoeuvres and interpretation
- > Biophysics of radiofrequency and cryoablation
- > EP characteristics, clinical presentation and diagnosis of supraventricular and ventricular tachyarrhythmias
- > Advanced mapping techniques including activation and pace mapping and fractionated potentials
- > Ablation indications, techniques, risks, success/recurrence rates, complications and endpoints for all forms of supraventricular and ventricular tachyarrhythmias.

## Duration

The course is 100% online so can be undertaken from anywhere in the world. You can enrol at any time to receive immediate access to all content. Students have five years in which to successfully complete all assessment.



## Prerequisites

The educational eligibility criteria are:

- > Bachelor degree equivalent to working in the therapeutic area of EP, or a demonstrated equivalence to an appropriate degree, **and**
- > Current active employment in the field of cardiac EP with direct access to an EP lab and be personally performing and/or participating in EP procedures.

## Registration\*\*

Graduate Diploma registration fee: AU \$9,500

All payment must be received for registration to complete.

The course registration fee covers all four modules, course materials, case studies, tutorials, hands-on demonstrations, live-streamed workshops and access to personal, online tutorials. You will also receive free, lifelong access to all course material.

## Course content

The course contains nine units of competency. Embedded in the required knowledge for the units of competency is a significant body of high level underpinning knowledge related to cardiac anatomy and physiology; cardiac pharmacology; principles of ablation; and mechanisms of arrhythmias.

Participants must demonstrate competence in all nine units to gain the Graduate Diploma qualification. A Statement of Attainment will be issued for any unit of competency satisfactorily completed if the full qualification is not completed.

The units are delivered in four Modules and assessed by online exams and a practical take home workbook.

Code	Unit title
CEPPRE001	Apply the principles of EP to diagnostic procedures
CEPBCS002	Define and diagnose bradyarrhythmias and conduction system dysfunction
CEPTAC003	Define, diagnose and treat AV Node re-entrant tachycardia
CEPTAC004	Define, diagnose and treat AV re-entrant tachycardia
CEPTAC005	Define, diagnose and treat rare supraventricular tachycardia syndromes
CEPTAC006	Define, diagnose and treat atrial tachycardia
CEPAFL007	Define, diagnose and treat atrial flutter
CEPAFI008	Define, diagnose and treat atrial fibrillation
CEPVTC009	Define, diagnose and treat ventricular tachyarrhythmias

## Course format

- > 15 on-demand lectures delivered in four separate modules
- > Hands-on sessions allow practical exposure to topics
- > Case studies place theory into real-life clinical scenarios
- > Tutorials further explore complex issues
- > Take-home workbooks permit practical assessment

### Module 1: Introduction to EP Concepts

1. Cardiac anatomy and physiology
2. Principles of electrophysiology: Part 1
3. Principles of electrophysiology: Part 2
4. Bradyarrhythmias and conduction system dysfunction

### Module 2: Atrial Arrhythmias and Management

5. Cardiac pharmacology
6. Principles of ablation
7. Atrial flutter
8. Atrial fibrillation

### Module 3: SVT and Tachycardia Mechanisms

9. Mechanisms of arrhythmias
10. AV node reentrant tachycardia
11. AV reentrant tachycardia
12. Atrial tachycardia

### Module 4: VT and Rare SVTs

13. VT: mechanisms, mapping and management
14. VT: inherited arrhythmias
15. Rare supraventricular tachycardia syndromes

## Assessment

Each assessment will become available immediately upon enrolment, however it is recommended that students complete each module's online education content before attempting any assessment. Assessments may be sat at any time, but the due date for assessment completion is 5 years from the date of enrolment.

A satisfactory outcome must be achieved for all online assessments and workbook submissions. Access to an EP lab and procedures is essential. Each successful graduate will be awarded a CEPIA Graduate Diploma of Cardiac Electrophysiology, a world class, accredited qualification. Graduates will be entitled to add the letters "Grad Dip Cardiac EP" to their title or signature.

## Personal one-on-one tutorials

Students can book confidential, one-on-one, tutorials to facilitate learning, clarify course material or discuss workbooks. If requested, screen sharing is enabled to help with any discussions or clarification of EGMs.

## Practical focus

### Hands-on demonstrations

Each module will be accompanied by stimulating hands-on demonstrations allowing practical exposure to topics including cardiac anatomical dissection, EP equipment hardware, catheters and sheaths and wet lab ablation.

### Pre-recorded live ablations

Pre-recorded live ablations from multiple SVT and VT procedures, including AVNRT, AVRT, AT, AFL, PVI and VT. The EP physician will present a detailed case history of the patient and live commentary. You will be able to see EGM/ECG signals, X-ray fluoroscopy and 3D electroanatomic mapping images.

### Case studies and tutorials

Case studies and tutorials are an integral part of the course and are designed to place the theoretical concepts taught in each module into real-life clinical scenarios.

### Live-streamed workshops

Students will have access to monthly 60-90min scheduled live-streamed workshop sessions, comprising of case studies, tutorials or general Q&A. You will have the opportunity for live interaction and discussion. Sessions will be scheduled on varied days and times to allow participants in different time zones many options.



### \*Cancellation/refunds

All requests for cancellations or refunds must be made in writing to CEPIA and are subject to the following conditions:

- > Requests received 1-14 days after date of payment: 50% refund. Access to all online educational tools will be revoked once refund is applied.
- > Requests received >14 days after date of payment: No refund. Access to online educational tools will remain open.
- > No refunds or discounts will be given for enrolling but not viewing or participating in any or partial online content.

^ Australian nationally accredited training is GST free

[cepia.com.au](http://cepia.com.au)

### Course Director:

Jason Riley, BSc, Grad Dip Cardiac EP  
Certified EP and Device Specialist (IBHRE)  
Director, Cardiac Electrophysiology  
Institute of Australasia (CEPIA)

### Academic Course Co-Director:

Associate Professor Haris Haqqani MBBS  
(Hons) PhD FRACP FCSANZ FHRS  
Senior Cardiologist and Electrophysiologist  
Prince Charles Hospital, Brisbane, Australia

### Faculty Members:

Dr Stephen Pavia, MBBS FRACP  
Electrophysiologist  
Wesley Hospital, Brisbane, Australia

Dr Russell Denman, MBBS FRACP  
Director Electrophysiology  
Prince Charles Hospital, Brisbane, Australia

### Qualified Assessors:

Jason Riley, BSc, Grad Dip Cardiac EP  
Cardiac Device and EP Specialist (IBHRE)

Harley Cross, BAppSc (HMS), Grad Dip  
Cardiac EP  
Cardiac Device Specialist (IBHRE)

