



Australian and New Zealand  
Board of Perfusion

# FREQUENTLY ASKED QUESTIONS

What qualities are important for a perfusionist?

**HOW CAN I GET  
A TRAINING  
POSITION??**

HOW  
COMPETITIVE IS  
IT TO BECOME A  
PERFUSIONIST?

Is it Stressful?

**WHAT IS THE  
TRAINING  
PATHWAY?**



## 1. What exactly is a perfusionist?

Perfusionists are **highly skilled healthcare professionals** who operate the heart-lung machine during cardiac surgery and other procedures requiring extracorporeal circulatory support. They are entrusted to manage the patient's haemodynamics, oxygenation, and circulation while the surgeon operates on the heart. It's a critical role that requires a deep understanding of the underlying sciences, including anatomy, physiology, pharmacology, and physics, as well as equipment and technology.

Perfusionists play a vital role in:

- Cardiopulmonary bypass during complex cardiac surgery
- ECMO delivery, management, and support in ICU, ED, and CTOT
- Organ preservation and ECMO retrieval
- Organ transplantation, including heart, lung, and liver
- Ventricular Assist Device delivery, management, and support
- Safe delivery of intrathoracic/intraperitoneal chemotherapy
- Intraoperative cell salvage in emergency haemorrhagic cases in various surgical fields such as orthopaedics, obstetrics, neurosurgery, vascular and cardiac procedures.

## 2. What education do I need to become a perfusionist?

You need an undergraduate degree in a relevant discipline such as medical science, with anatomy, physiology, chemistry, biology and physics.

You **need to secure a trainee perfusionist position** before or concurrently with enrolling in the Master's program. This is because the training is *heavily hands-on and requires practical experience in a clinical setting*.

## 3. How does the training pathway work?

The training pathway is unique due to the **hands-on and technical nature of the profession**. You can't just enrol in the Master's program and then look for a job. You need the trainee position first, or at least concurrently. This **work-integrated learning approach** is essential for developing the necessary skills and fulfilling the clinical component required to become eligible to sit the ANZBP Board Certification Exams and qualify as a Certified Clinical Perfusionist (CCP ANZ).

The trainee position is essential as you will need to fulfil a clinical component that includes:

- A **minimum** of 200 supervised CPB cases
- Observing a number of cases at different units
- Presenting a research project at the ANZCP ASM Conference



#### 4. How do I get a trainee perfusionist position?

This is often the biggest hurdle and the most frequently asked question. **Trainee positions are competitive** and not always readily available, as they are currently based on workforce movements. It often takes **1-2 years**, sometimes even longer, to secure one. It is up to the individual to seek out and secure a trainee position.

Here's what you can do:

- **Set up job alerts:** Keep an eye out for trainee perfusionist positions advertised online.
- **Network:** Reach out to chief perfusionists and attend conferences and workshops. Don't be discouraged if you don't receive immediate responses; perfusionists are often very busy.
- **Be prepared to move and possibly permanently relocate:** Keep an eye out for **all** trainee positions in Australia and New Zealand.
- **Gain experience: Working in a related healthcare field** (nursing, paramedicine, allied health, etc.) can be a huge asset. It demonstrates your commitment to healthcare and provides valuable clinical experience. This also shows maturity and resilience, qualities highly valued in perfusion.
- **Be persistent and patient:** Don't give up! Keep applying for positions and building your network. **Patience is absolutely key in this field.**
- **Embrace maturity:** Perfusion is a demanding field. Maturity, resilience, and the ability to handle pressure are vital. Highlight these qualities in your applications, along with your relevant clinical experience.

#### 5. How long does it take to become a perfusionist?

The entire process, from starting your search for a trainee position to sitting ANZBP Certification Exams, can take anywhere from 3-5 years or even longer, depending on how quickly you secure a trainee position. These **opportunities typically arise when current perfusionists retire or move on to other roles.** So, they are not often predictable unfortunately.

The pathway to becoming a clinical perfusionist can be long and challenging, but it's definitely worth it! Remember to be **patient, persistent, and proactive** in your job search. The competitive nature of this field means it can take time. Focus on building your skills, experience, and network. With hard work and dedication, you can achieve your goal of becoming a clinical perfusionist.



## 6. How competitive is it to get into perfusion?

It's **highly competitive**, particularly for trainee positions. There ***may often be hundreds of applicants for one position***. Be prepared for a challenging job search and be persistent in your efforts. Consider applying for every job interstate and across the ditch, although keep in mind that some hospitals will have a retention clause in the contract that may require you to stay for a period of time.

## 7. What can I do in the meantime while I wait for a trainee position?

Focus on building your resume! **Gain clinical experience, network with perfusionists, and continue learning about the field.** Consider taking related courses or certifications. Gaining experience in related clinical fields is a strategic advantage. Given the competitive job market, this not only provides a backup plan and reduces your reliance on a single career path, but also ***strengthens your applications*** when perfusion positions become available.

*Our current trainees come from a variety of backgrounds, including nursing, paramedicine, cardiac sonography, and even cardiac research. Past trainees have come from other professions that may not require additional education such as biomedical engineering, blood bank/laboratories, cardiac physiology and more.*

Maturity and clinical experience are highly valued by hiring managers, given the level of stress and emotional maturity often required in the perfusion space. It is also important to understand and not get discouraged that there may be units, for example, at a busy pediatric unit, where they want more mature people with a breadth of clinical experience who can handle the emotional toll and burden specific to that centre.

## 8. I want to network with other perfusionists to learn about job opportunities? How should I approach a chief perfusionist?

A great way to connect with chief perfusionists is on LinkedIn or via email. Calling chief perfusionists via the hospital switchboard may reduce your chance of getting in touch with them as they may be on pump, and unable to answer your call.

If you decide to contact a chief perfusionist about potential job opportunities, be polite and respectful of their time. Keep your initial request brief and to the point, explaining your interest in perfusion. It is important not to be pushy or demanding. Be prepared for the possibility that they may not be able to accommodate your request or may not have any job opportunities. Understand that they are very busy and often have restrictions on shadowing at their institution. Even if they can't offer shadowing, they might be willing to answer some of your questions or offer other advice.



### 9. I'd love to shadow a perfusionist. What's the best way to do this?

Shadowing is a great way to get a firsthand look at the profession, but it can be difficult to arrange. Depending on the case load, many perfusionists can be quite busy and unable to have observers, and hospitals can often have restrictions in place due to patient privacy. ***If you'd like to pursue shadowing, you can try contacting chief perfusionists directly via email or LinkedIn*** but understand that they may not be able to accommodate your request. The day-to-day tasks of a perfusionist are quite varied, so they may be able to accommodate someone to visit one week and may not be able to do something similar for a few months for the next person. *Shadowing opportunities can help you decide if you want to pursue perfusion, they do not necessarily give you an increased chance in getting a position.*

In the meantime, we highly recommend focusing on other valuable activities, such as gaining clinical experience in a related field or even networking with perfusionists at conferences. These activities can be just as beneficial for your applications.

### 10. I want to start my career in perfusion. What if I don't get a trainee position right away?

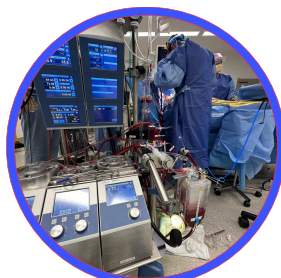
That's ok, and it's actually less common to secure a trainee position immediately. *Many aspiring perfusionists spend 1-2 years, or even longer,* searching for the right opportunity. It's important to **have a backup plan, gain related experience, and remain persistent in your job search.** Be prepared for a potentially lengthy and challenging process however it will be worth it in the end.

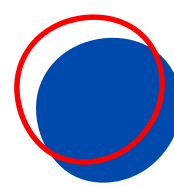
### 11. What are some strategies for making my application for a trainee position stand out?

Strong applications highlight relevant clinical experience (even if it's not directly in perfusion), *demonstrate a genuine passion for the field,* showcase *strong communication and interpersonal skills,* and emphasise qualities like seriousness of purpose, resilience, adaptability, and a **strong attention to detail.**

### 12. Is it a stressful job?

Yes, absolutely! Perfusionists work in **high-stakes environments**, often dealing with critical situations. The role demands strong decision-making skills, the ability to handle pressure, and emotional resilience.





### 13. What qualities are important for a perfusionist?

Beyond the technical skills, perfusionists need to be:

- **Detail-oriented:** **Precision and a high level of detail** are crucial in this role.
- **Adaptable:** Situations can change quickly in the operating room.
- **Team-oriented:** Perfusionists work closely with surgeons, cardiac anaesthetists, nurses, and other medical professionals.
- **Compassionate:** While focused on the technical aspects, perfusionists are still *caring for patients*.
- **Serious about their role:** The work of a perfusionist is critical, and every action is for the benefit of a patient. No corners can be cut, and a serious approach is incredibly important.
- **Able to Sacrifice:** You will often have to sacrifice your own time for *on-call duties*, or even lunch/dinner whilst you are doing your job for long hours.
- **Responsible:** Perfusionists may often be the only one on call and **have to make decisions, act swiftly, and are relied upon** to do their job to the best of their ability.

### 14. Is there a demand for perfusionists?

The field is relatively specialised and required in all hospitals that perform cardiac surgery, ECMO, and other surgeries such as intraoperative cell salvage, HIPEC, etc.

### 15. What is a typical day like for a perfusionist?

A typical day revolves around preparing for and participating in surgical procedures requiring cardiopulmonary bypass. This includes setting up the heart-lung machine, monitoring the patient's vital signs during the procedure, administering medications, and collaborating with the surgical team. There can also be **administrative tasks, equipment maintenance, and continuing education**. The day can be unpredictable, as surgeries can run longer than expected or emergencies can arise.

### 16. What are the emotional demands of being a perfusionist?

Perfusionists work in a high-stress environment and are often involved in critical situations. They need to be able to remain calm and **focused under pressure**, make quick decisions, and **cope with the emotional impact** of potentially adverse outcomes. The ability to compartmentalise and maintain emotional well-being is crucial. The emotional roll of the work should not be underestimated.





### 17. Are there any physical demands?

There is not really any heavy lifting or anything, however perfusionists can often work without a scheduled lunch break or even a toilet break. If you are on-call by yourself, you can't just leave the pump or the patient. ***When you're on bypass, the patient is your priority, even before yourself.*** Perfusionists work around this by not having too much to drink before a case, timing their lunch breaks, ensuring they bring enough food in case they have a late case etc.

There is also the physical demand of a *lack of sleep if on-call or being involved in long surgeries that go through the night until the morning.* This can be a rare event at some centres, and more frequent at others.

### 18. What are the career advancement opportunities for perfusionists?

Experienced perfusionists may choose to ***specialise in certain areas*** specific to certain hospitals, such as *paediatrics or transplants and retrievals.*

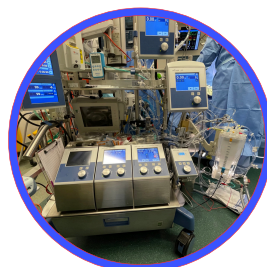
Senior perfusionists may begin to **educate** others, including the supervision of trainees, and ICU ECMO education. There are many perfusionists who go on **charitable mission trips abroad** in developing countries to perform perfusion procedures, and even educate the local teams.

### 19. Is there any on-going education required in the career?

Continuing education is essential. The field is constantly evolving with new technologies and techniques, so ***perfusionists need to stay up-to-date*** to maintain their skills and provide the best possible patient care. Certification also requires ongoing professional development.

### 20. What is the work-life balance like for a perfusionist?

The work schedule can be *demanding* and unpredictable, often requiring **on-call hours and long shifts**. The day could change with an emergency, and perfusionists are required to be dynamic and flexible, and potentially work overtime, even if they were not expecting to at the start of the day. **Not all days are like this though, and you may have downtime to do research, or continued education.**





## 21. What is the sense of community like among perfusionists?

The Australian and New Zealand community, as well as the global perfusion community is **close-knit and supportive**. Perfusionists share a unique understanding of the challenges and rewards of the profession, creating a strong sense of camaraderie and mutual respect.

## 22. Are there opportunities to work abroad as a perfusionist?

Opportunities to work abroad do exist, but they often require **meeting specific certification requirements in the country** where you wish to work. Research the requirements of the country you're interested in.

## 23. How does perfusion contribute to advancements in cardiac care?

Perfusionists are at the forefront of cardiac surgery and are often involved in research that leads to improved techniques and technologies. They **contribute to the ongoing evolution of cardiothoracic and perfusion advancements**.

## 24. How does perfusion offer a unique blend of science and health care?

Perfusion combines a strong foundation in science with the direct application of that knowledge to patient care. It's a profession that allows you to use your scientific expertise to make a real difference in people's lives.

## 25. What are the most rewarding aspects of being a perfusionist?

The most rewarding aspects often include the satisfaction of playing a vital role in saving lives, the intellectual stimulation of mastering a complex field, the teamwork involved in cardiac surgery, and the constant learning and professional development.

A perfusionist can make a **direct and tangible impact on patients' lives**. Knowing that you played a crucial role in a successful surgery, optimising perfusion parameters to reduce adverse outcomes, and being an integral part of the team that has allowed someone to return safely home again is incredibly fulfilling!

