

# Perfusionist

A perfusionist is a skilled person, qualified by academic and clinical education, who operates extracorporeal circulation equipment during any medical situation where it is necessary to support or temporarily replace the patient's circulatory or respiratory function. The perfusionist is knowledgeable concerning the variety of equipment available to perform extracorporeal circulation functions and is responsible, in consultation with the physician, for selecting the appropriate equipment and techniques to be used.



## Career Description

A perfusionist is a skilled allied health professional, trained and educated specifically as a member of an open-heart, surgical team responsible for the selection, setup, and operation of a mechanical device commonly referred to as the heart-lung machine.

During open heart surgery, when the patient's heart is immobilized and cannot function in a normal fashion while the operation is being performed, the patient's blood is diverted and circulated outside the body through the heart-lung machine and returned again to the patient. In effect, the machine assumes the function of both the heart and lungs.

The perfusionist is responsible for operating the machine during surgery, monitoring the altered circulatory process closely, taking appropriate corrective action when abnormal situations arise, and keeping both the surgeon and anesthesiologist fully informed.

In addition to the operation of the heart-lung machine during surgery, perfusionists often function in supportive roles for other medical specialties in operating mechanical devices to assist in the conservation of blood and blood products during surgery, and provide extended, long-term support of patients' circulation outside of the operating room environment.



## Employment Characteristics

Perfusionists primarily work in the operating room during cardiac surgery procedures and may be employed by the hospital, by surgeons, or as employees of a contract independent group practice. The majority of procedures are performed during regular weekly work hours. As critical members of the clinical teams, perfusionists are required to take call and be available for emergency procedures, which can occur at any time. The call schedule is dependant on the number of perfusionists employed by the institution.



## Salary

Perfusionists are well compensated for their services. According to the American Society of Extra-Corporeal Technology (AmSECT), the average base salary range for practicing perfusionists is as follows:

- Recently graduated perfusionist: \$60,000-\$75,000
- Perfusionist with 2 to 5 years experience: \$70,000-\$90,000
- Perfusionist with 6 to 10 years experience: \$80,000-\$100,000
- Perfusionist managers: over \$100,000

Refer to Section IV, Table 5 of this *Directory* for more information, or see [www.ama-assn.org/go/hpsalary](http://www.ama-assn.org/go/hpsalary).



## Educational Programs

**Length.** Programs are generally 1 to 4 years, depending on the program design, objectives, prerequisites, and student qualifications. Certificate programs require that applicants have a bachelor's degree.

**Prerequisites.** Prerequisites vary depending on the length and design of the program. Most programs require college-level science and mathematics. A background in medical technology, respiratory therapy, or nursing is suggested for some programs.

**Curriculum.** Curricula of accredited programs include courses covering heart-lung bypass for adult, pediatric, and infant patients undergoing heart surgery; long-term supportive extracorporeal circulation; monitoring of the patient undergoing extracorporeal circulation; autotransfusion; and special applications of the technology. Curricula include clinical experience that incorporates and requires performance of an adequate number and variety of circulation procedures.



## Inquiries

### Careers

American Society of Extra-Corporeal Technology (AmSECT)  
National Office  
2209 Dickens Road  
Richmond, VA 23230-2005  
[www.amsect.org](http://www.amsect.org)

American Academy of Cardiovascular Perfusion  
PO Box 3596  
Allentown, PA 18106-0596  
610 395-4853  
E-mail: [officeAACP@aol.com](mailto:officeAACP@aol.com)  
[www.theaacp.com](http://www.theaacp.com)

### Certification

American Board of Cardiovascular Perfusion  
207 N 25th Avenue  
Hattiesburg, MS 39401  
601 582-2227  
[www.abcp.org](http://www.abcp.org)

### Program Accreditation

Commission on Accreditation of Allied Health Education Programs (CAAHEP) in collaboration with:  
Accreditation Committee - Perfusion Education  
6654 S Sycamore Street  
Littleton, CO 80120  
303 738-0770  
303 738-3223 Fax  
E-mail: [ac-pe@msn.com](mailto:ac-pe@msn.com)  
[www.ac-pe.org](http://www.ac-pe.org)