

# Perfusionist



## Occupational Description

A perfusionist operates extracorporeal circulation and autotransfusion 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.



## Job Description

Perfusionists conduct extracorporeal circulation and ensure the safe management of physiologic functions by monitoring the necessary variables. Perfusion (extracorporeal circulation) procedures involve specialized instrumentation and/or advanced life-support techniques and may include a variety of related functions. The perfusionist provides consultation to the physician in the selection of the appropriate equipment and techniques to be used during extracorporeal circulation.

During cardiopulmonary bypass, the perfusionist may administer blood products, anesthetic agents, or drugs through the extracorporeal circuit on prescription and/or appropriate protocol. The perfusionist is responsible for the monitoring of blood gases and the adequate anticoagulation of the patient, induction of hypothermia, hemodilution, and other duties, when prescribed. Perfusionists may be administratively responsible for purchasing supplies and equipment, as well as for personnel and departmental management. Final medical responsibility for extracorporeal perfusion rests with the surgeon in charge.



## Employment Characteristics

Perfusionists may be employed in hospitals, by surgeons, and as employees of a group practice. They typically work during the week and are frequently on call for emergency procedures on weekends and nights. They also may work in an on-call system, depending on the number of perfusionists employed by the institution.

According to the American Society of Extra-Corporeal Technology (AmSECT), the average base salary for a recently graduated perfusionist is \$50,000; for a certified perfusionist with 2 to 5 years experience, \$55,000 to \$69,000; 5 to 10 years experience, \$65,000 to \$72,000; and chief perfusionist, \$70,000 to \$90,000.



## Educational Programs

**Length.** Programs are generally 1 to 4 years in length, 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  
503 Carlisle Dr/Ste 125  
Herndon, VA 20170  
703 435-8556  
[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)  
<http://members.aol.com/OfficeAACP>

### Certification

American Board of Cardiovascular Perfusion  
207 N 25th Ave  
Hattiesburg, MS 39401  
601 582-2227

### Program Accreditation

Commission on Accreditation of Allied Health Education Programs (CAAHEP) in collaboration with:  
Accreditation Committee - Perfusion Education  
6654 S Sycamore St  
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)