

## Radiologic Management of Central Venous Access

Venous access is a procedure in which a catheter is placed into a vein for medical diagnosis or therapy. The type of device used depends on the patient and the type of illness being treated. There are two main types of venous access devices: peripheral and central catheters. A peripheral catheter is usually placed into a small vein, often in the arm, and is usually used for up to 96 hours. A central catheter can be placed into a small or large vein in the body, with the tip located in a large vein close to the heart in the chest, and is used for a longer time.

There are different types of central venous catheters. These include peripherally inserted central catheters, temporary for short-term use, and tunneled for long-term use. Other devices, like a chest port, may also be put in the body. It is important to use proper hygiene and to monitor for bloodstream infections. If there is an infection, the device may need to be taken out and a new one placed in a different location, and antibiotics may be needed. Monitoring for a blood clot (<https://www.radiologyinfo.org/en/info/bloodclot>) is also important, and anticoagulant medication may be needed if one forms.

Typical uses for central venous access include giving nutrition and blood products. Chest ports are used to administer chemotherapy in people with cancer, to treat people having a sickle-cell crisis, or to treat patients with intravenous antibiotics for a blood infection.

For more information, see the *Vascular Access Procedures* ([https://www.radiologyinfo.org/en/info/vasc\\_access](https://www.radiologyinfo.org/en/info/vasc_access)) page.

— By Roberta Savo, Karin E. Dill, MD. This information originally appeared in the *Journal of the American College of Radiology*.

### Disclaimer

This information is copied from the RadiologyInfo Web site (<http://www.radiologyinfo.org>) which is dedicated to providing the highest quality information. To ensure that, each section is reviewed by a physician with expertise in the area presented. All information contained in the Web site is further reviewed by an ACR (American College of Radiology) - RSNA (Radiological Society of North America) committee, comprising physicians with expertise in several radiologic areas.

However, it is not possible to assure that this Web site contains complete, up-to-date information on any particular subject. Therefore, ACR and RSNA make no representations or warranties about the suitability of this information for use for any particular purpose. All information is provided "as is" without express or implied warranty.

Please visit the RadiologyInfo Web site at <http://www.radiologyinfo.org> to view or download the latest information.

**Note:** Images may be shown for illustrative purposes. Do not attempt to draw conclusions or make diagnoses by comparing these images to other medical images, particularly your own. Only qualified physicians should interpret images; the radiologist is the physician expert trained in medical imaging.

### Copyright

This material is copyrighted by either the Radiological Society of North America (RSNA), 820 Jorie Boulevard, Oak Brook, IL 60523-2251 or the American College of Radiology (ACR), 1891 Preston White Drive, Reston, VA 20191-4397. Commercial reproduction or multiple distribution by any traditional or electronically based reproduction/publication method is prohibited.

Copyright © 2025 Radiological Society of North America, Inc.