

## **CENTRAL VENOUS CATHETER (CVC)**

Your baby needs to have a Central Venous Catheter (CVC) inserted. The purpose of this CVC is to administer nutrition and medications directly into a vein. The purpose of this article is to explain to you the two methods of CVC insertions, where and how they are inserted, and the care of your baby's CVC.

These IV lines can have complications, including infection, blood clots, and damage to the baby's blood vessels. They may also work their way out of the vessels in which they are placed, to cause IV fluids to infuse into spaces they were not intended, such as the lung or the sac around the heart. These complications can be serious enough to cause death, but have never done so here.

There are two methods of CVC insertion that the physicians use on our unit. They are the percutaneous insertion and the surgically placed CVC.

The percutaneous insertion offers the physicians an option that eliminates the need for the surgically placed CVC. This insertion method consists of a simple venipuncture into one of the larger veins in the arm or leg. The catheter is then threaded into the vein until the tip of it is in either the heart, or one of the large vessels in the body. This placement is used because the volume of blood that the fluids enter is larger, and dilutes the often high concentrations of sugar infused. This helps to decrease the discomfort and possible damage to skin from irritating medications and solutions.

A percutaneous central line may not be used for your baby if the veins are too small or the physician was unable to thread the catheter up the vein to the proper placement area. If that is the case, a surgically placed CVC will be needed.

A surgeon places the surgically placed CVC. Your baby may or may not have to go to the operating room. You will need to sign a surgical consent for this procedure. Your baby will not receive a general anesthetic. The surgeon will use a local anesthetic prior to the procedure, and your baby will receive an IV pain medication as well.

A surgeon will insert the catheter through a small incision made in the axilla (underarm) or the neck. It is then inserted into the vein and threaded to the proper placement area with the tip just entering the heart.

Either type of CVC greatly reduces the number of IV starts your baby is subjected to since the CVC is a more durable IV access and can be used for most needs. It is painless when in place. Both the percutaneously and the surgically placed CVC have been developed for the premature baby who may be susceptible to infections. They are both soft, pliable catheters. Your baby's arm may be secured onto an arm board. When the catheter is removed, nurses will exercise that extremity if an arm board was used, until full range of motion has returned.

Your baby may need a blood transfusion at some time during this hospitalization. CVCs are not routinely used for blood or blood products, so you may see a small peripheral IV placed for this procedure.

If you have any questions, please ask your baby's physician or nurse. We will be happy to answer any questions you may have.