

"IV" or "Intravenous Catheters"

U Srejjic, O Wenker

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Abstract

This article explains briefly what the so-called "IV" is and why it is used by your anesthesiologist (the doctor putting you asleep for surgery) or the nurse on the hospital ward.

WHAT IS AN "IV"

The "hospital I.V." stands for intravenous line. Intravenous means "into a vein". A vein is the type of blood vessels in your body bringing blood towards the heart. Certain kinds of treatments require medications or fluids to be given through a vein. For such treatments an intravenous line needs to be placed. Small plastic tubes called catheters are placed into a vein when an IV is needed.

FREQUENT REASONS FOR PLACING IV CATHETERS

- To give fluids
- To give blood or blood products
- To give medications which cannot be taken by mouth e.g. pain medication, certain types of antibiotics .etc

WHAT KIND OF EQUIPMENT IS NEEDED TO PLACE AN "IV"?

A rubber band (called tourniquet) is placed around your arm to stop the blood flow and make your veins (blood vessels) appear larger. Alcohol pads are used to clean your skin. A syringe with some numbing medicine (called local anesthetic) with a very tiny needle is used to numb the skin. A small tube (called catheter) is used to get fluids and medicine into your vein. This small catheter is together with a needle which is being used to get the catheter into your vein. Once in your vein, the catheter stays and the needle is removed. A bandage is finally put on your skin to protect the "IV" site. The "IV" is connected to some tubing with an "IV" bag (or several bags).

Figure 1

Figure 1: Equipment



Figure 2

Figure 2: IV bags



HOW IS AN "IV" PLACED INTO A VEIN?

Trained professionals place IV catheters. These catheters are usually placed in the arm or the forearm. At first you will be seated or put on a bed, then your arm will be examined to see which vein is best seen to place the catheter. Then a rubber band is placed higher up around the arm; this helps visualize the veins. The area where the IV is to be inserted is cleaned thoroughly with alcohol. The IV catheter; which consists of a needle and a plastic sheath, is inserted through skin into the vein. Once in the vein, the plastic catheter is advanced further and the metal needle is withdrawn and the rubber band is released. The IV catheter is then connected to plastic tubing and small amount of fluid is given through the catheter to confirm the correct placement. Then this whole

system is secured with tape and dressing.

Figure 3

Figure 3: An "IV" in place



POSSIBLE COMPLICATIONS

This is a very safe procedure with minor complications such as bruising at the area of insertion, inability to advance the plastic catheter in the vein if the vein is too small and rarely going through the vein. In the last case, the IV would need to be removed and pressure applied to the skin to avoid bruising. If left in the vein too long an infection may occur. Some medications have a tendency to burn when given into the IV.

WHEN YOU SHOULD BE CONCERNED

Please inform your nurse or physician when you have one of the following at the site of your IV:

- Pain,
- Swelling
- Redness

SOLVING THE PROBLEM

The problem (pain, swelling, redness) is usually solved by removing the IV.

References

Author Information

Una Srejjic, MD

Assistant Professor of Anesthesiology , MD Anderson Cancer Center , The University of Texas

Olivier C. Wenker, MD, DEAA

Professor of Anesthesiology, Department of Anesthesiology and Critical Care, Director of Technology Discovery , Office of Translational Research , MD Anderson Cancer Center , The University of Texas