Ask an expert: Bruising, tenderness from an IV

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Q. I had an IV inserted and removed three months ago, and still have a bruise that follows my vein up my forearm. The bruise is yellowish in color and still tender to the touch. The vein also feels a little hard. How long is this supposed to last? Is this common?

A. About 25 million Americans have intravenous catheters (or IVs) placed each year. They are a very important part of medical treatment for acute illnesses, cancer, surgery, anesthesia, and trauma. IVs are used to administer fluids and to allow medications to reach as quickly and effectively as possible, via the bloodstream, the parts of the body where they work.

IV catheters can be placed in a hand, arm or leg. During the placement of an IV, a needle is inserted through the skin and into an accessible blood vessel. A plastic tube is then slid over the needle, which is withdrawn. No needle remains in your body. (So-called “butterfly” needles are an exception to this).

Some healthcare providers use a little bit of local anesthetic beforehand, with a very tiny needle, to numb the area of skin where the IV is inserted. Local anesthetic cream is sometimes applied 45-60 minutes beforehand to achieve the same effect. This is particularly helpful in the care of children.

Complications

Serious complications related to peripheral IVs are uncommon, but problems do occur, especially with prolonged use. That is why there are guidelines in different hospitals about the recommended duration that a peripheral IV should be in place.

As with any side effect or complication of healthcare procedures, early detection and good communication between the patient and healthcare provider are important. Listed below are complications of IV catheters and their treatments.

- **Phlebitis**: Phlebitis is a term that means inflammation of a blood vessel. Phlebitis occurs quite commonly after the insertion of intravenous catheters. In phlebitis the inflammation causes localized redness and warmth at the IV insertion site and perhaps a short distance along the course of the vein in which the IV has been placed. Most times, phlebitis is no more than a minor inconvenience.

- **Thrombophlebitis**: Thrombophlebitis is similar to phlebitis but a thrombus (clot) is in addition involved. As the IV cannula stays inside your body, it may irritate the vein leading the body to trigger its clotting mechanisms.

  You may notice a hardened area corresponding to where a clot has formed in the vein. This kind of small clot does not have the same potentially life-threatening consequences as blood clots in the deeper and larger veins in the body.

  Treatment of phlebitis and thrombophlebitis is aimed at relief of the symptoms including: anti-inflammatory medicine, such as ibuprofen, acetaminophen for pain, or local heat. If the condition worsens, especially if pain or the area of redness increases, medical attention should definitely be sought.

- **Septic thrombophlebitis**: The vein can become infected and spread infection throughout the body via the bloodstream. If you suspect an infected vein, seek your healthcare provider immediately. Hospitalization may be needed and antibiotics will...
be used to control the bacterial infection. You must finish the entire course of prescribed antibiotics.

- **Local infection:** A microscopic organism may use the tiny hole in the skin created by the IV catheter to find its way into the body, and cause an infection. If you suspect an infection, see your healthcare provider immediately. Antibiotics may be used to control the bacterial infection. You must finish the entire course of prescribed antibiotics.

- **Infiltration:** This occurs when the catheter unintentionally enters the tissue surrounding the blood vessel. The intravenous infusion must be stopped, obviously, to avoid putting any more fluid or medication into the tissues. Another IV may need to be started elsewhere.

- **Hematoma:** This happens when the catheter punctures through the vein causing internal bleeding and a collection of blood. A hematoma normally recovers over time (a few hours or days) without treatment.

- **Nerve damage:** It is also possible for the IV needle to penetrate and injure a nerve, and for bruising and bleeding to irritate a nerve. Nerve damage tends to repair itself in a few weeks to a few months. If you suspect a nerve injury contact your doctor.