The procedure of injecting a sterile fluid solution directly under the skin is referred to as subcutaneous fluid administration. The advantages of the subcutaneous fluid route include a lower cost (compared with the intravenous route) and ease of administration. Your veterinary health team will work with you to make sure you know how to give subcutaneous fluid injections without injuring yourself or your dog.

What Are Subcutaneous Fluids?
Fluid administration is a regular part of veterinary medical care. Any time that a patient is dehydrated or needs fluids, your veterinarian determines the best way to provide them. Fluids can be given by mouth, injection into a vein (known as intravenous fluids or IV fluids), or injection directly under the skin—a procedure known as subcutaneous fluid administration.

If a pet is able to eat and drink, giving fluids by mouth may be an option. However, if the pet is vomiting, unwilling to drink, or unable to obtain enough fluids through drinking, other methods of fluid administration must be considered. To receive intravenous fluids, pets generally need to be hospitalized because only a small amount can be given at a time and the IV catheter (through which the fluids are given) requires special care and maintenance. However, subcutaneous fluids can be given in larger amounts over a relatively short period of time, so hospitalization is frequently not required. The injection of sterile fluid is given under the skin and absorbed slowly over the next several hours. Advantages of the subcutaneous route include a lower cost (no catheter is required, and hospitalization is often not necessary) and ease of administration.

When Are Subcutaneous Fluids Necessary?
Dogs being treated for chronic kidney disease are the most likely to receive subcutaneous fluids on a regular basis. Your veterinarian may also recommend subcutaneous fluids for pets that are vomiting or unable (or unwilling) to drink adequate amounts of water. Examples may include dogs receiving chemotherapy or dogs with a high fever.

Depending on the medical condition being treated, your veterinarian may recommend fluid injections daily, every other day, or a few times a week. The frequency of injections and the amount of fluids given at each injection may change over time, so be sure to keep a notebook detailing when fluids are given and how much.

Getting Started
Before you get started, your veterinary health care team will work with you to make sure you know how to give subcutaneous fluid injections without injuring yourself or your dog. If you aren’t comfortable or need additional training sessions, don’t be afraid to ask!

Here are a few things to consider:

- **Be sure you can handle your dog without being injured.** This may not be an issue if your dog is very compliant and is used to being handled. However, if you have had problems in the past trying to trim nails, give a pill, or perform other procedures on your dog, you may need help giving fluid injections. Talk to your veterinary care team about tips for properly restraining your dog for fluid injections before...
attempting your first session. In some cases, you may need another person to help hold your dog so you can safely give the injection.

- **Don’t be afraid to ask questions.** Your team of veterinary professionals will be glad to answer any questions you may have about safely administering fluid injections to your dog.

- **Record your dog’s fluid schedule on the calendar.** Include the date and time that the fluids need to be administered. This will help you to avoid forgetting to give fluids to your dog and to remember when the course of treatment is completed.

- **It’s okay to leave fluid injections to the professionals.** Giving fluid injections to a dog requires skill, patience, and confidence. If you aren’t comfortable trying to give injections at home, ask your veterinary team if the injections can be done at your veterinarian’s office.

The new fluid bag, fluid line, and needles are sterile until they are opened. It is important to handle these items properly to avoid contaminating them. Your veterinary care team will show you how to assemble the fluid line and bag and to attach a fresh needle without breaking sterility. Be sure to change the needle after each injection; the fluid line can be changed when each bag of fluids is completed.

For the fluids to flow from the bag and into your pet, the fluid bag must be suspended over the area where your pet is sitting. Many pet owners use a bent wire coat hanger to hang the fluid bag over the top of a door; you can then sit in a nearby chair or kneel/sit on the floor with your dog while fluids are being given.

**Proper Restraint**
A small dog may be happy lying or sitting on your lap while you administer the fluid injection. For a larger dog, you may need to sit in a chair or on the floor next to your dog. Some small dogs may do better on a smooth surface, such as a table; the top surface of a washing machine can simulate the smooth metal table at your veterinarian’s office, which might encourage your dog to remain still during the procedure. Additionally, some dogs do better with two people administering the injection—one person to hold the dog, and the other one to give the injection.

**Giving the Fluid Injection**
Your veterinary care team will show you how to administer fluids before you have to try it alone at home:

- Find an area of loose skin; the skin over the middle of the back or just behind the shoulders generally works well. If the injection will be given frequently, try to alternate injection sites so you are not using the same location each time.
- Gently pinch a section of loose skin between your thumb and forefinger. When you pull the loose skin gently upward, you should see a small indentation of skin between your fingers. While holding the needle in the opposite hand, insert the sterile needle directly into the indentation. Keep the needle level (or parallel) with the surface of the skin on the back. If your angle of injection is too sharp, you may enter a muscle, go through the skin to the opposite side, or stick your own finger.
- Once the needle has been inserted, open the dial on the fluid line to begin administering fluids. The procedure should take only a few minutes.
- When the desired amount of fluid has been given, remove the needle (backing out along the same path that was used to enter the skin) and gently pinch the skin for a few seconds to help prevent the fluid from flowing back out.
- If there is no bleeding or leakage of fluid, release your dog after giving him or her praise and a big hug for being a good patient!

Ask your veterinary team to teach you how to administer fluid injections safely. If you aren’t comfortable giving injections, ask about scheduling outpatient visits for the fluid injections to be given.