



# SQ Fluids At Home

If you are reading this guide, you've probably been instructed to give your cat subcutaneous (SQ – pronounced “sub-Q”) fluids at home. It may seem daunting at first, but many people are easily able to keep their cats healthy and comfortable at home by administering these life-sustaining fluids under the skin.

Kidney disease is very common in cats and is the main reason that people start giving SQ fluids. The cat's kidneys aren't conserving water like they should – it just flows right through the body without being absorbed (which is why the urine is very dilute and not concentrated at all). It's also the reason that your cat may be drinking large amounts of water and urinating large amounts as well – the body knows it's dehydrated and tried to compensate by telling the cat that he/she's thirsty. Eventually, the kidney insufficiency turns to kidney failure and they shut down. But if hydrating fluids are supplemented, cats with renal problems may live many, many years beyond what they would without regular fluid treatment. By being willing to give your cat SQ fluids at home, you are essentially giving your cat more life.

The following is meant to be a guideline to start fluid treatment at home. If you have any specific questions, they should be directed to your technician or veterinarian. We are happy to do demonstrations or even watch and talk you through giving the fluids yourself, so you know you're doing them correctly.

## Before Starting – Getting Familiarized with the Equipment

1. One unopened 1000mL bag of LRS (lactated ringer's solution) that has a white stopper in the bottom with a pull tab. The bag is marked in increments of 100mL (for example, from the number 1 to the 2 is 100mL). There are unnumbered marks for 50mL in between each number.
2. One 72” vented fluid set.
  - At the top is the white pointed end (that is covered with a large plastic cap to protect sterility) – this will be inserted into the opening in the fluid bag.
  - There is a clear chamber directly below this that will show fluid flow into the line.
  - Then is the white piece on the line itself with a rollerball – this is your “On/Off” switch for the fluids. The ball can be rolled to pinch the line, and therefore stop flow of the fluids. You will want it closed to start with so the fluids don't leak out before you're ready.
  - The end of the line with the beige rubber piece (injection port) and the small plastic end is where the needle will be fitted.
3. Needle – there are a few different sizes used for SQ fluids in cats, and all are universally color-coded. The smaller the gauge number, the bigger the bore of the needle. By using a larger bore needle, the fluids will run faster.
  - Green (18 gauge) needle is the most common
  - Pink (20 gauge) needle may be used for smaller patients

Needles are one-use only – DO NOT use the same needle twice (it's contaminated, and it's dulled – which makes it more painful). Always change the needle just before administering fluids.

## Assembling the Fluid Bag, Line, and Needle

1. Hold the fluid bag upside-down, and pull the white tab back firmly so it peels off – and throw the white tab away. Do not flip the bag right-side-up or the fluid will pour out the hole. This is where you will fit the line.
2. Take the large clear plastic piece off the pointed top of the line and (being careful not to touch it and compromise its sterility) firmly twist the white point back and forth into the hole of the fluids bag until it won't push in any further. You may need to use some force to make sure it's tight and won't leak. Make sure your “On/Off” rollerball switch is closed and pinching the line, then flip the bag back right-side-up.
3. Hang the bag on an elevated hook or have someone hold the bag (above the level that your cat will be sitting – so gravity will help push the fluids through the line). Some people get very creative in finding ways to elevate the fluid bag.



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4. Squeeze the clear chamber under the bag slightly so it fills to the line with fluid. If you squeeze too much fluid into the chamber, just flip the bag back upside-down and squeeze the fluid from the chamber back into the bag. Don't spend a lot of time on this – it doesn't need to be exact – you just don't want air coming into the line.
5. To flush all the fluid out of the line, open the line by rolling the “On/Off” rollerball off the line so it's not pinched anymore. Sometimes the line will stay pinched even after you take the rollerball off it, and the fluid won't flow – so just pinch it slightly to open the line.
6. Let the fluid flow through the line, watching to be sure all the air bubbles are out of it. Then turn it off again.
7. To prepare the needle, twist the clear plastic part from the colored part of the needle (and throw the clear part away). What remains is the colored cap of the needle with the hub of the needle sticking out the bottom.
8. On the line, take the small clear cap off the tip (taking care not to touch the tip of the line or let it touch the floor – you want to maintain sterility), and throw the clear cap away.
9. Push the tip of the fluid line into the hub of the needle. Don't push it on too hard or you'll have a very hard time getting it back off! Once the needle's on the line, you can pull off the colored cap to reveal the needle underneath (again take care not to touch the metal part of the needle with your fingers or let it touch the floor or table). Keep the needle capped at all times and until just before you are ready to administer the fluids.
10. You're all set to start giving your cat SQ fluids!! ☺

## Giving SQ Fluids

1. Get everything ready and in place before getting your cat. If there isn't already an unused needle on the line, replace it now. Never use the same needle twice – this is very important for obvious reasons (it's contaminated and dull from the first use).
2. Have your cat either sit on the floor, or on a raised surface such as a counter or tabletop – whatever works best for you. It works well to have your cat facing away from you, so if he/she tried to back up, he/she will just back up into you.
3. The best (and least painful) place to give SQ fluids is in the extra skin in the scruff of the neck. Pull up on the skin so it forms a triangle or tent of skin.
4. With your other hand, boldly punch the needle through the skin layer at a 45° angle in one quick motion. Don't try to go slow – it will hurt a lot more. Use just one quick motion. You will probably be able to feel the resistance as it pokes through the skin layer, and then no resistance once it's through. You can insert the needle into the skin all the way up to the hub of the needle.
5. Keeping one hand stabilizing the needle, use your other hand to turn on the fluid line. Look at the fluid chamber. If fluids are flowing through it, and you're not feeling any wetness from the scruff of your cat's neck, you've done it correctly.

### Troubleshooting:

- If the fluids are not flowing, first check to make sure the line didn't stay kinked after you turned it on.
- If the fluids are still not flowing and the line is open, redirect your needle slightly, either by pushing it in further or pulling it out a little, until you see the fluid flowing through the chamber.
- If your needle is in the skin, the fluids are on, and you're feeling water coming out of the cat, pull back on the needle slightly (you probably pushed all the way through the tent of skin) and go more at a downward angle. It's no big deal if you go all the way through and fluids are coming out – don't completely take the needle out and poke your cat again – just pull back a little and redirect it. Sometimes if a cat is severely dehydrated, it will be difficult to get the needle under the skin layer rather than through it.



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6. Now just try to keep your cat still while the fluid flows under his/her skin. You will see an accumulation of fluid under the skin as a cool-to-the-touch swelling. This will be absorbed by the body at different rates, depending on how dehydrated your cat is. The flow of fluids under your cat's skin may feel "funny" to him/her at first, and you may notice his/her skin twitching, until they get used to the sensation.

**Important Tip:** It's very important to talk in a slow, reassuring voice to your cat throughout the entire process. Once your cat trusts you and knows what you are doing, he/she will relax. He/she can't understand why this is happening and is confused by it. You need to reassure him/her the whole time. Your voice will calm his/her anxiety.

7. Watch the fluid level as it decreases by the increments marked on the bag. Your doctor will tell you how much fluids your cat should receive and how often (it will also appear on the label on the bag). For example, if your cat needs 100mL fluids, the fluid level will go from one number on the bag to the next – like from the 2 to the 3. This is not a scientific process. There is no way to give your cat the absolute exact amount of fluids unless you're using an infusion pump (which are used only in the hospital for cats that are on IV (intravenous) fluids). You will just need to "eyeball" the bag – especially when it gets below the number 9. Sometimes your cat may receive a little more, sometimes a little less. This will not harm your cat.
8. When you've administered the right amount, shut off the flow of fluids. You will see the fluid flow in the chamber stop.
9. Draw the needle out of the cat's skin and carefully put the cap back on, taking care not to poke yourself with it. Leave the capped needle on the line to keep the tip of the line from being contaminated. You will change the needle again just before you give the next dose of fluids. By doing it just before administering fluids, you will always know you're using a clean, sharp needle.
10. You may notice little drops of fluid coming back out where the needle was inserted. This is completely normal and is due to the large gauge of the needle and the pressure of the fluids against the skin. Sometimes a capillary is hit and a small amount of bleeding may occur – again, do not panic.
11. Remember to give your cat lots of praise and a treat afterwards. Make them see that they will get a treat or a quick playtime afterwards (so they don't dread it as much). Try to make the entire experience as agreeable as possible to encourage your cat's cooperation in this process.
12. Store the fluid bag with line and extra needles in a room temperature spot, away from pets and children.
123. Well done! © Congratulations – you've just successfully administered subcutaneous fluids to your cat, and by doing so, keeping him/her healthier and more comfortable.

*As always, if you have any questions, please call and speak with someone – we'd be glad to help!*

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