

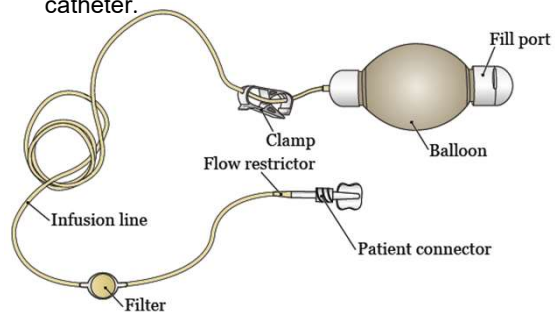
How to Administer an Elastomeric Infusion Pump

1

Administration of an Elastomeric Infusion Pump

Parts of an elastomeric infusion pump

- The **balloon** is where the medication is held. The balloon has 2 layers. An inner membrane holds the medication, and an outer cover protects the inner membrane.
- The **fill port** is where the medication is put into the balloon. The fill port has a cap to protect it.
- The **infusion line** carries medication from the balloon to the IV catheter.
- The **clamp** is used to start and stop the flow of medication.
- The **filter** filters the fluid before it's infused into the body.
- The **flow restrictor** helps to control how quickly the medication is infused.
- The **patient connector** is where the infusion line connects to the IV catheter. The patient connector has a cap that covers the connector when it's not connected to the IV catheter. It's removed when the pump is connected to the IV catheter.



2

Administration of an Elastomeric Infusion Pump

Equipment needed for the procedure

- Flush syringes
 - 2 saline syringes
 - Heparin syringe, if needed according to your facility policy and procedure
- Sterile wipes
- Alcohol disinfectant cap
- Elastomeric device with medication



3

Administration of an Elastomeric Infusion Pump

Procedure to attach an elastomeric infusion pump to an existing IV catheter

1. Verify physician/LIP order.
2. Identify the patient using appropriate identifiers.
3. Explain the procedure to the patient/significant other.
4. Position the patient for comfort and access to the attachment site.
5. Perform hand hygiene.
6. Assemble equipment and supplies on a clean work surface.
7. Don gloves.
8. Prime the IV tubing:
 - a) Open the device tubing clamp.
 - b) Fill the tubing with the solution. (watch until medication drips from the end, loosen the cap if it is not flowing)
 - c) Close the clamp.

4

Administration of an Elastomeric Infusion Pump

Procedure to attach an elastomeric infusion pump to an existing IV catheter

9. Prepare your syringes.
 - a) Remove the syringe cap.
 - b) Gently tap the syringe to move air to the tip.
 - c) Push the plunger to remove air and extra solution. (if difficult to push, pull back slightly to break the seal)
 - d) Replace the syringe cap until it is to be used.
10. Flush the line.
 - a) Remove the existing alcohol disinfectant cap and discard.
 - b) Attach the syringe firmly to the IV needleless connector using a push and twist motion.
 - c) Open the clamp.
 - d) Inject the solution.
 - e) Close the Clamp.
 - f) Remove and discard the syringe.
 - g) Attach a new alcohol disinfectant cap after the final flush.

5

Administration of an Elastomeric Infusion Pump

Procedure to attach an elastomeric infusion pump to an existing IV catheter

11. Administer the medication.
 - a) Scrub the needleless connector with a sterile wipe for 15 seconds and allow to air dry.
 - b) Attach the elastomeric device firmly to the needleless connector.
 - c) Ensure clamp is open and that the device is at chest height during the infusion.
12. Once the infusion has completed.
 - a) Ensure the balloon is completely deflated.
 - b) Disconnect the device tubing from the needleless connector.



Full pump

Half way through
infusion

Empty pump

6

Administration of an Elastomeric Infusion Pump

Documentation

Documentation in the medical records includes, but is not limited to:

- Date and time
- Solution
- Rate and method of infusion
- Complications and interventions
- Patient response to procedure and/or solution
- Patient/significant other education
- Communication with prescribing physician/LIP
- Communication with supervisor

7

References

- Mei, A., & Auerhahn, C. (2009, May). *Elastomeric Infusion Pump: Maintaining Hydration in the Frail Older Adult*. hmpgloballearningnetwork.com. Retrieved September 23, 2021, from [https://www.hmpgloballearningnetwork.com/site/altc/content/Elastomeric Infusion Pump-maintaining-hydration-frail-older-adult](https://www.hmpgloballearningnetwork.com/site/altc/content/Elastomeric%20Infusion%20Pump-maintaining-hydration-frail-older-adult).
- Sasson, M., & Shvartzman, P. (2001, November 1). *Elastomeric Infusion Pump: An alternate infusion technique*. American Family Physician. Retrieved September 23, 2021, from <https://www.aafp.org/afp/2001/1101/p1575.html>.
- Gorski LA, Hadaway L, Hagle ME, Broadhurst D, Clare S, Kleidon T, Meyer BM, Nickel B, Rowley S, Sharpe E, Alexander M. Infusion Therapy Standards of Practice, 8th Edition. J Infus Nurs. 2021 Jan-Feb 01;44(1S Suppl 1):S1-S224. doi: 10.1097/NAN.0000000000000396. PMID: 33394637.
- Elsevier, S. (2017). *Infusion nursing: An evidence-based approach*. (R. Perucca, J. Hankins, L. Gorski, A. Corrigan, & M. Alexander, Eds.). Saunders.

8