

Angiographic Syringe

Introduction: Read the information contained in this section. Understanding the information will assist you in operating the device in a safe manner.

Important Safety Notice: The device is intended to be used by individuals with adequate training and experience in diagnostic imaging studies.

Indications for Use: The contents of this package are intended to be used in the delivery of contrast media. These devices are indicated for single-use only with power Injectors.

Contraindications: These devices are not intended for multiple-use, drug infusion, chemotherapy or any other use for which the device is not indicated.

Warnings

- Air embolization can cause death or serious injury to the patient. Do not connect a patient to the injector until all trapped air has been cleared from the syringe and fluid path. Carefully read the instructions for loading to reduce the chance of air embolism.
- Biological contamination can result from reusing disposable items or failure to follow aseptic technique. Properly discard disposable items after use.
- If the plunger is removed from the syringe. Do not remove the plunger to fill the syringe.
- Bacterial contamination can occur if syringes are used to store contrast media. Use loaded syringes immediately. Do not store loaded syringes for later use. Discard unused loaded syringes.
- Patient or operator injury may result if package is used. Visually inspect contents and package before each use.
- Patient injury could result if syringe is not properly engaged. Do not load or inject unless the syringe is properly engaged. Ensure the alignment marks on the syringe and injector head are properly aligned and the piston and plunger are interlocked. Improper engagement may cause air embolization or under-volume delivery.

Cautions

- **Component damage may occur if not installed properly.**
Assure all connections are secure; do not over tighten. This will help minimize disconnection, and component damage.
- Refer to the injector operation manual for further instructions.

Syringe Installation

1. Ensure that the piston on the injector head are fully retracted.
2. Remove the new syringe from the package and insert into the injector head Syringe Interface ensuring that the Keyed Wings at the syringe base and openings in the Syringe Interface are aligned.
3. Install the syringe and the alignment marks on the syringe and adapter plate are aligned.

Syringe Filling

NOTE: Same person should fill and arm the injector. If you must change the injector operator, be certain that the second operator verifies that the syringe is properly filled and that any air is eliminated.

1. Tilt the injector head (or the syringe interface module) up.
2. Advance the plunger to full forward position.
3. Remove the protective cap from the syringe luer tip and attach a sterile filling device onto the tip of the syringe. Quick Fill Tube, spike.
4. Fill the contrast media into the syringe by the filling device:
 - a. **Quick Fill Tube** - raise the contrast bottle until the Quick Fill Tube is fully inserted. The end of the Quick Fill Tube should be near the bottom of the contrast bottle.
 - b. **Spike** - prepare the bottle or bag of contrast and/or flushing solution. Push the bottle or bag onto the spike until the spike enter the contrast bottle .

NOTE: Use Quick Fill Tube or equivalent device to reduce the volume and size of air bubbles drawn into the syringe during filling. it is more difficult to remove the air bubbles if you use smaller diameter tubes, such as catheter-over-needle, or a tube longer than 10 in.(25cm.)

5. Absorb contrast media into the syringe.

Expelling Air and Attaching the Connector Tube

After you fill the syringe, attach the pressure connecting tube, you must expel all air from the syringe.

To do so:

1. Remove the filling device and expel air from the syringe.
Do not hit the syringe to remove air bubbles. Reverse the plunger 3 to 5 ml, then, if applicable, rock the injector head on the pivot to dislodge the bubbles. Expel the remaining air.
2. If you are using a pressure connecting tube with an integrated check valve, attach the shorter side of the Y (T) - tube to the contrast (syringe A) and the other side to the saline (Syringe B). Do not reverse the piston plunger of Syringe after you have attached the tube.
3. Verify that the tubing is not kinked or obstructed.
4. If your injector does not have a manual knob, proceed to Step 5. Use the manual knob to advance the syringe plunger to provide a slow flow of contrast media through the connector tubing. An absence of flow is an obvious indication or air in the fluid path.
5. Prime the connector tubing and make certain that the air is expelled.
6. Verify that all the air has been expelled from the syringe and fluid path.
7. Tilt the injector head (or syringe interface module) down.

Reinstalling a Syringe

If you remove a syringe from the injector and then wish to reinstall it, perform the following steps:

1. Insert the end of the syringe in the injector head.
2. Advance the piston until it is past the plunger feet and the piston and plunger interlock.
3. Install the syringe on the injector.
4. Proceed as normal by aspirating and dislodging any bubbles.

Removing a Syringe

To detach the syringe when the procedure has been completed, remove it from the injector head.

Discard all used components.

Symbols on package



Attention



Don't reuse



Sterilized with EO



Expiry Date



Manufacture Date



Lot No.



DEHP-Free



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