

FreedomEdge® Syringe Infusion System

Sub-q Infusion Mat

Gather Supplies:



Medication



Spike or needle

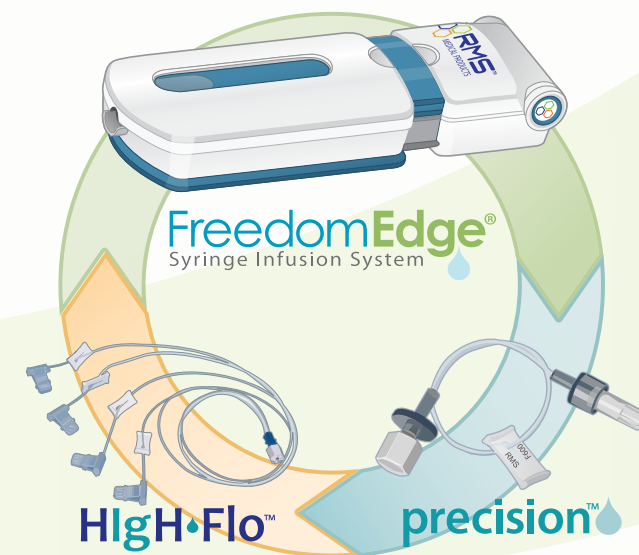
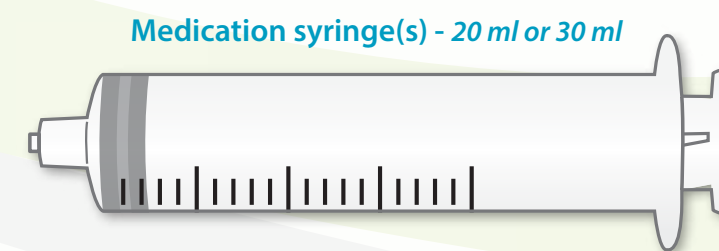
RMS Precision Flow Rate Tubing™ - check the F number of the tubing



HlgH-Flo Subcutaneous Safety Needle Sets™

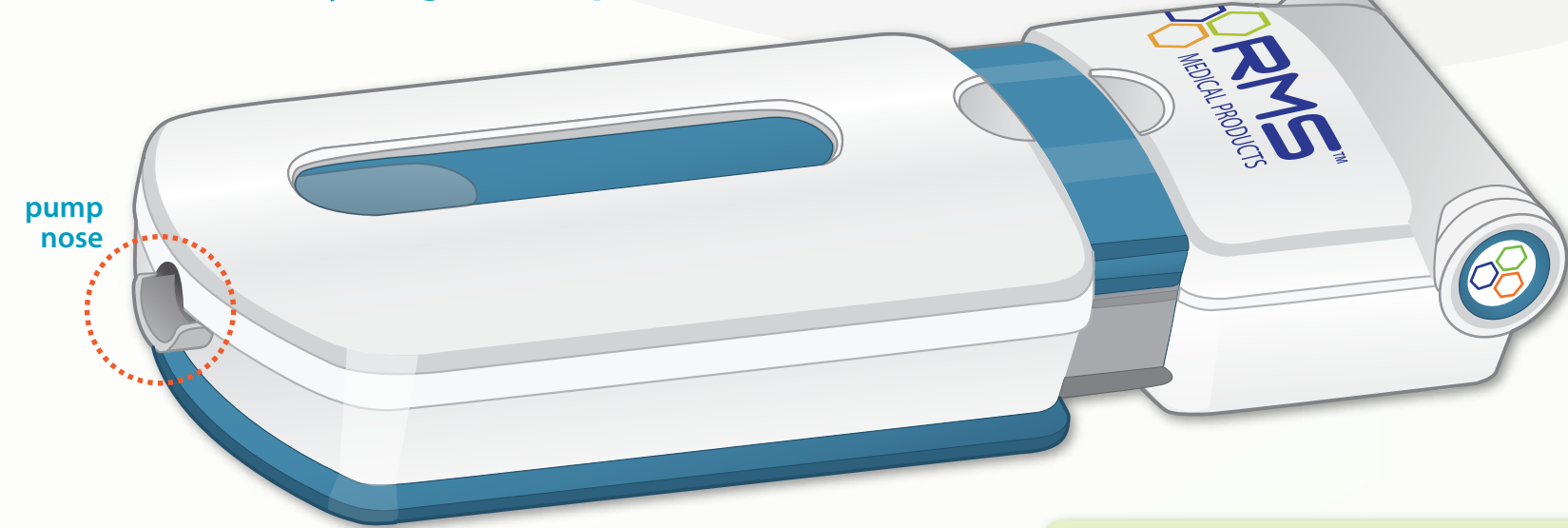


Be sure to use the complete protocol supplied by your healthcare provider.
Wipe down infusion mat with alcohol pad prior to each use.



FreedomEdge® Syringe Pump

- completely portable system
- no batteries or electric
- constant safe pressure



Why Sub-q?

Subcutaneous administration slows down the rate in which medication enters the bloodstream through smaller needles than IV. Combined with more frequent delivery, this provides increased consistency and stable blood levels, decreases side effects and improves overall quality of life.

FreedomEdge® offers all the performance and technology of the FREEDOM60®, in a design for 20 and 30 ml syringes. FREEDOM60® is designed for 60 ml syringes.

Prepare and Prime Tubing:

1 Wash Hands



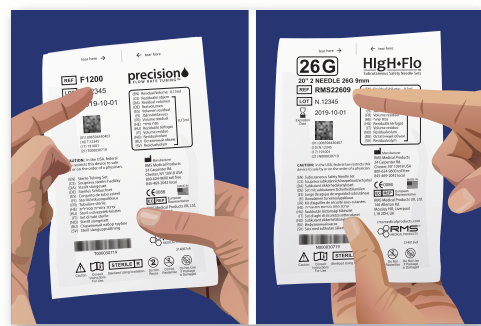
Wash your hands thoroughly and, if required, put on disposable gloves.

2 Fill Syringe



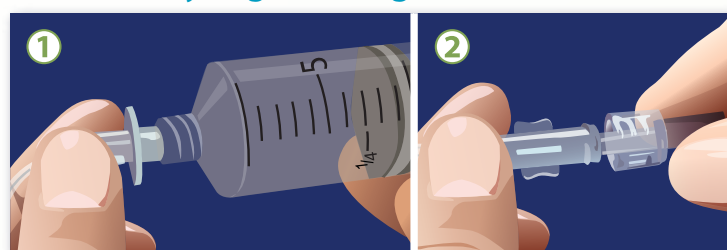
Be sure the product is at room temperature before you begin filling syringe with your required dose. Refer to the manufacturer's instructions or ask your provider for more detailed filling instructions.

3 Verify Tubing & Needles



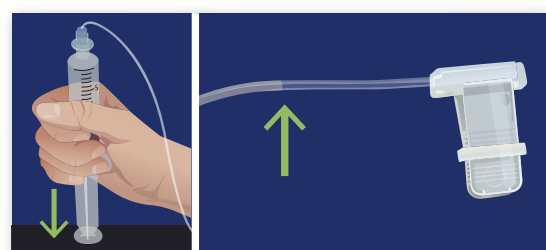
Verify that you are using the correct tubing and needle sets recommended by your healthcare provider and prescribed by your doctor.

4 Attach Syringe, Tubing & Needles



1. Remove the sterile cap from the luer disc end of the RMS Precision tubing set and connect to syringe. 2. Remove sterile caps from opposite end of tubing set and HlgH-Flo needle set and connect, using care not to contaminate ends.

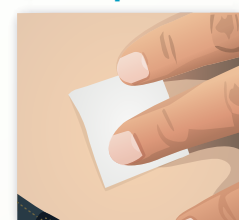
5 Prime Needle Set



Grasp the syringe, and gently press down with steady pressure. Watch the tubing fill and stop flow about 2" short of the needles. **To minimize site irritation, it is recommended to insert needles dry.**

Insert Needles/Check for Blood Return:

1 Prepare Sites



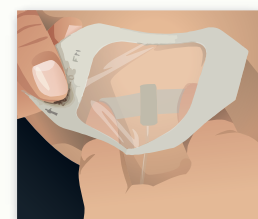
Select your site(s), cleanse with alcohol and let dry. Carefully remove shield from the needle tip without touching the needle.

2 Insert



Pinch the skin and insert each needle into the subcutaneous tissue at a 90° angle.

3 Secure



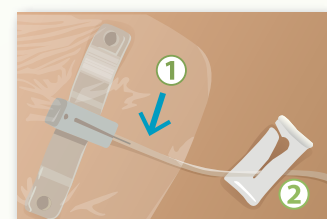
Secure needle(s) with adhesive dressing.

4 Pull Back



Remove the syringe from the pump. Check for blood return by gently pulling back on the syringe plunger.

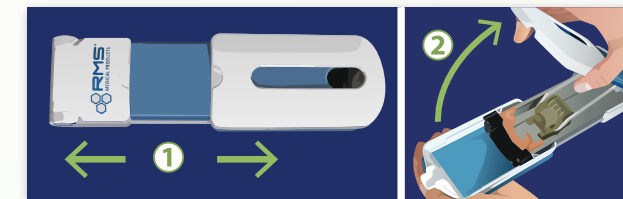
5 Watch



1. Watch to make sure no red/pink appears in tubing near your sites. 2. If blood return exists, clamp the flow to that site and call your healthcare provider to determine if the dose can be run using the remaining sites. If so, continue. If not, remove all needles, attach a new needle set and start again from step 5 of Prepare section.

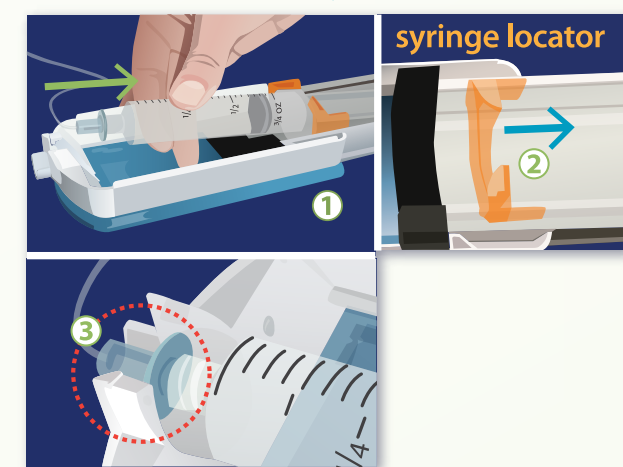
Load Pump:

1 Open Pump



To open the pump, 1. confirm that the FreedomEdge® is fully extended. 2. Then, open fully by lifting top cover.

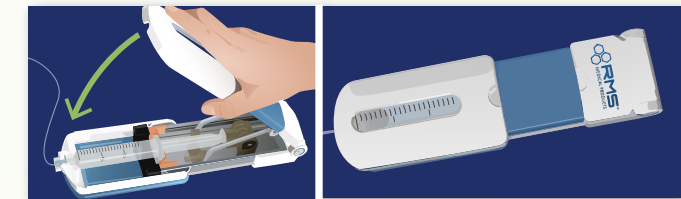
2 Load Prepared Syringe



1. Load syringe into the pump, plunger end first. 2. If needed, pull back on syringe locator to help. 3. Seat the luer disc into nose of the pump. The syringe should sit in front of the locator.

Starting Infusion:

1 Close Pump



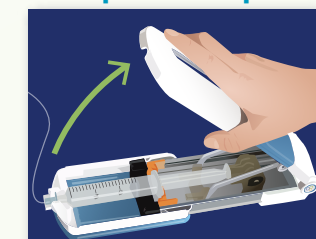
Start the infusion by closing the pump. The infusion will begin immediately.

Note: To pause infusion, simply open the pump. To continue the infusion, re-close the top lid.

When closing the pump, make sure that the top lid is fully extended and aligns with the bottom portion.

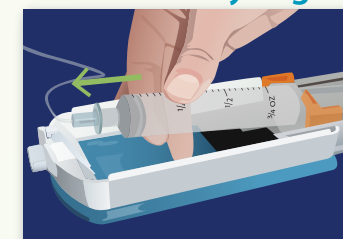
After Infusion is Complete: (When syringe is completely empty)

1 Open Pump



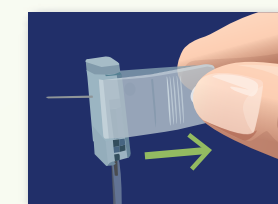
Turn the pump **OFF** by opening the top lid.

2 Remove Syringe



Remove the empty syringe.

3 Remove needles, discard sharps



One at a time, hold each needle in place and peel back any adhesive/dressing around it. Remove needle in a straight motion. Remove needle set from the syringe. Cleanse each site and cover with a bandage. Discard all sharps and biologics as required.

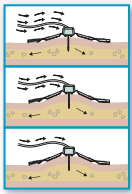
Minimizing Site Reactions

- Note:** Site reactions in new patients usually diminish over time as the sub-q depots become more developed.
- Consider trying a longer needle
 - Be sure needle is dry upon insertion
 - Inquire about adding infusion sites
 - Be aware of dressing/tape sensitivities
 - Ask about trying a slower flow rate tubing



A Balanced Infusion Through DynEQ™

DynEQ™ (Dynamic equilibrium) immediately responds to increasing pressure in the site by automatically slowing down. This built-in safety feature maintains a safe pressure throughout the infusion, decreasing possible site reactions.



RMS Precision Flow Rate Tubing™ controls your flow rate and infusion time. Each tubing set provides a different level of flow restriction. This, plus the viscosity of the drug, provides a precise delivery for predictable and consistent infusions.

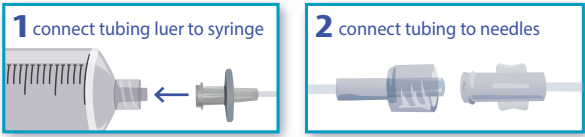
Sub-q Flow Rate Tubing Item Numbers:

Most Common Sub-q Flow Rates						
F275	F420	F500	F600	F900	F1200	F2400
slow flow			moderate flow			rapid flow

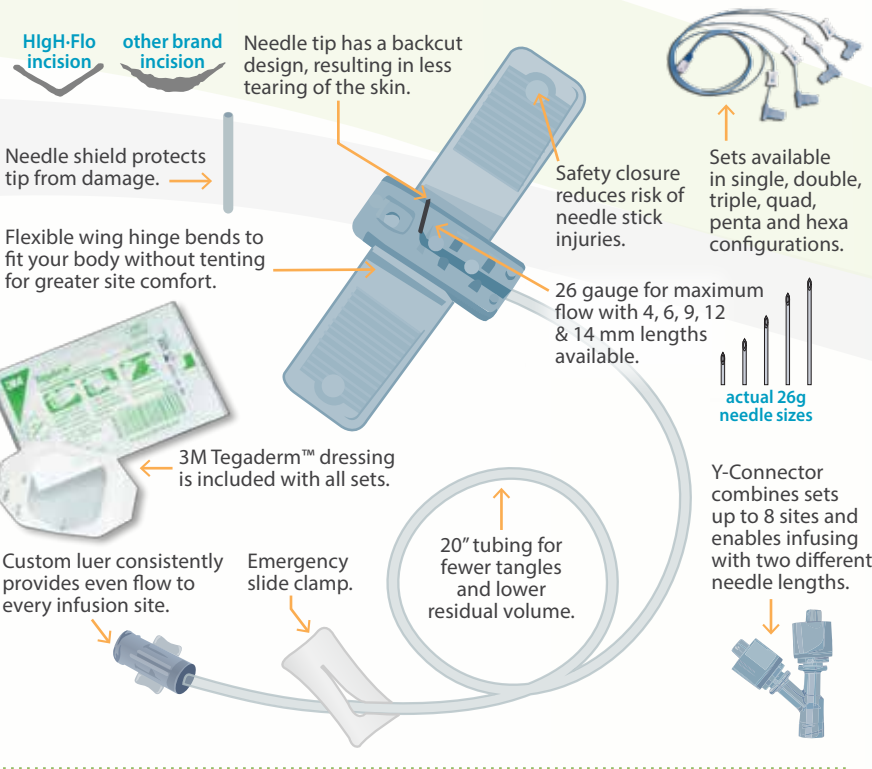
We offer more than twenty different variations of Precision tubing, so that you can get the infusion rate you need. If you have been thinking about a change, ask your provider to help determine which tubing is best for you.

Don't forget your Precision!

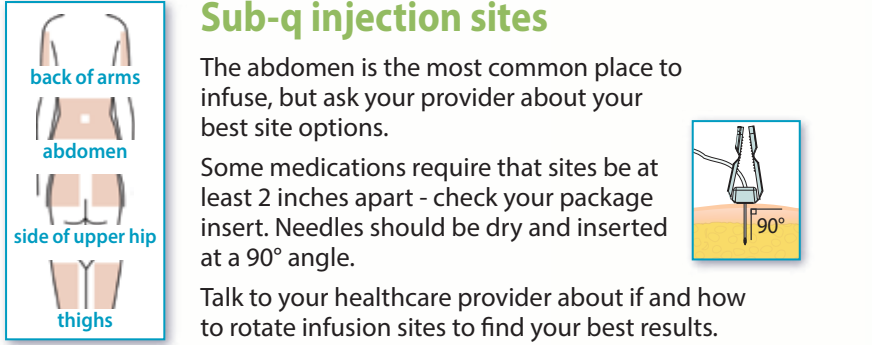
If you accidentally connect your HlGH-Flo safety needle set directly to the syringe without a Precision flow rate tubing set attached, the FreedomEdge® will eject the syringe.



Specifically made for subcutaneous administration, HlGH-Flo Subcutaneous Safety Needle Sets™ are designed for greater comfort and dependable flow throughout a patient's infusion.



HlGH-Flo needles provide dependable, equalized flow through every needle, helping to fill your infusion site(s) at the same rate - reducing pain, swelling and oozing.



Troubleshooting

For complete instructions, please refer to the Instructions For Use included with your pump.

Swelling, pain or redness at the site

According to continuing research, needles may play a significant role in adverse site reactions. Among the many factors which may contribute to infusion site reactions are: the quality of needles being used; needle tip design; sharpness; length; number of sites; flow rate; and, dressing/covering.

- 1) Verify you are using RMS HlGH-Flo needles. If not, consult your healthcare provider and inquire about trying HlGH-Flo.
- 2) Be sure to insert your subcutaneous needles dry. IgG can irritate the skin.
- 3) Assure that the needles you are using are long enough to reach your sub-q layers.
- 4) Ask your provider about trying a slower rate tubing set, especially for your first few infusions.
- 5) If you have been having difficulty with rotating sites, you may want to return to the sites that work best for you. Talk to your provider about options.

No flow

- 1) Make sure all slide clamps are unclamped. **Note:** if a slide clamp has been overused, or left clamped for an extended time, it can damage the tubing.
- 2) Use sterile procedures to disconnect the tubing set from the needle set and check for medication drip. If medication drips from the tubing, it may be a problem with the needle set. If the medication does not drip, replace the tubing as it may be damaged.
- 3) With the pump empty, open and close the lid, watching that the syringe pusher slides freely and does not bind.

Slow flow

- 1) Confirm you are using the correct size syringe. 30 ml syringes flow approximately 20% slower than 20 ml syringes on the same Precision flow rate tubing.
- 2) Administration may be slow, based on how well medication is absorbed through your tissue. If this is your first time with sub-q, it may take longer than expected because your body may need to create space in the subcutaneous layers in order to infuse in the time desired.
- 3) Avoid placing needles near areas of scar tissue or on top of muscle.
- 4) It is possible you may need more sites, longer needles or a faster flow rate tubing set.
- 5) Slow flow can also be a symptom of blocked or poor quality needles. If you are not using HlGH-Flo Subcutaneous Safety Needle Sets™, talk to your healthcare provider about trying them.

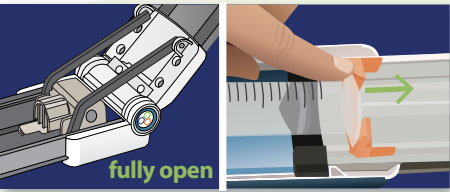
Cannot stop flow

- 1) The best way to immediately stop flow is to fully open lid of the pump.
- 2) We recommend using the tubing set slide clamp only in case of an emergency.

Syringe will not load or remove from pump

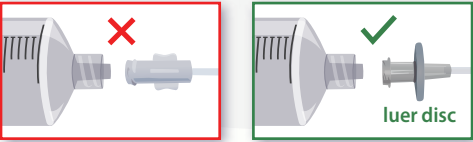
You will never need to use force to load or remove a syringe.

- 1) Make sure the pump lid is fully open.
- 2) If you still have difficulty, use one hand to slide back the syringe locator.



Syringe will not stay inside in the pump

- 1) Make sure you have not attached the HlGH-Flo needle set directly to the syringe.



- 2) Be sure you are using a RMS Precision tubing set (with the luer disc).
- 3) Make sure that the luer disc at the end of the tubing is properly seated in the nose of the pump.

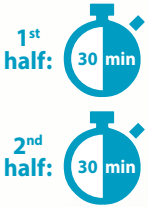


Note: Your FreedomEdge® is designed to slow down if it encounters a problem. For more details about how the FreedomEdge® works to protect you, see DynEQ™ section.

Q & A FreedomEdge®

- Q. How can I tell if the FreedomEdge® is working and that I am receiving my infusion?**
- A.** Write down the time the infusion started and verify that you are using the correct control rate tubing and syringe recommended by your healthcare provider. Then, watch that the syringe plunger moves in accordance with your infusion time. If you expect dose to take 1 hour, then after 15 minutes, 1/4 of your dose should be complete. If there is any doubt, please ask your healthcare provider.

- Q. How can I find my best infusion sites?**
- A.** Simply time your infusions! Note how long the first half of your dose takes, and then the second half. Compare both times. If the second half takes longer, you may be able to find sites that accept the drug more easily. If the two times are almost equal, it means your sites are accepting the drug well, and the site pressure is not increasing over the duration of your infusion.



- Q. What if I want to administer a smaller or larger amount of fluid?**
- A.** For smaller volumes, the system will automatically adjust to whatever amount is contained in the syringe. If a dose is larger than 30 ml, you can load an additional syringe using the same tubing and needle set. We also offer the FREEDOM60® pump, which has the same performance as FreedomEdge®, but for 60 ml syringes.

- Q. How do I clean the FreedomEdge®?**
- A.** You can wipe the outside surface with warm water and detergent. Do not attempt cleaning any part of the pump that is not easily accessible. Refer to the Instructions For Use for more information on how to clean the pump.

- Q. What if I want my infusion to go faster?**
- A.** See the section above on the RMS Precision Flow Rate Tubing™ choices available. Then talk with your provider to see if a change is appropriate.

- Q. Can the FreedomEdge® be used at high altitudes, such as in aircraft?**
- A.** Yes. It can be used in any position, at any altitude.

- Q. Can the FreedomEdge® be used for applications other than SCIGs?**
- A.** Yes. The FreedomEdge® can be used to administer most intravenous and subcutaneous medication that will fit in a 20 ml or 30 ml syringe.

- Q. Does the FreedomEdge® need maintenance?**
- A.** The FreedomEdge® is designed to operate without scheduled maintenance. If you ever experience a pump problem, immediately advise your healthcare provider who can arrange for a replacement if necessary.

- Q. Do you offer a carrying bag for the pump?**
- A.** Yes, RMS offers a travel pouch. If you would like a pouch, please contact the provider who sent you your pump.

Q & A precision™

- Q. What makes Precision tubing so special?**
- A.** RMS Precision Flow Rate Tubing™ is made in the USA. Our manufacturing expertise, mastered through decades of experience, ensures accurate and dependable infusions when used with RMS Freedom DynEQ™ pumps, maximizing the benefits Dynamic Equilibrium.



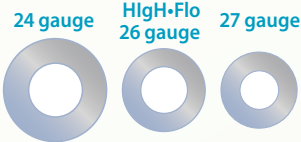
- Q. What affects the flow rate of the FreedomEdge®?**
- A.** The two main factors are the diameter of the tubing and the viscosity of the fluid. Immunoglobulin, for example, will flow much slower than an antibiotic. Since temperature also affects the viscosity of fluid, when temperature is cold, the flow slows down; when temperature is warm, the flow rate increases.

- Q. Why can't I connect the needle set directly to the syringe?**
- A.** You need a restrictive tubing with a disc luer. This ensures that your infusion is delivered at a controlled rate, and that the syringe stays properly seated in the pump.

- Q. What is the temperature range that I can infuse in?**
- A.** For accuracy and safety, most medications must be delivered at room temperature, but make sure to check the drug's package insert.

Q & A HlGH-Flo™

- Q. Why do you call them HlGH-Flo?**
- A.** Made for sub-q, 26 gauge HlGH-Flo (high performance flow) sets offer faster infusion rates than typical 27 gauge needle sets.



Note: If you are transitioning from 27 gauge, your provider might give you a different F-numbered Precision tubing set to keep your infusion time similar.

- Q. Are there 24 gauge HlGH-Flo sets available?**
- A.** Yes, HlGH-Flo is also available in 24 gauge, for when extremely high flow rates are required. Most sub-q patients do not need 24 gauge needles.

- Q. How can the smaller 26 gauge HlGH-Flo sets flow at the same rate as other brand sets using larger 24 gauge needles?**
- A.** HlGH-Flo needle sets are carefully designed to optimize fluid flow for the most efficient handling of drugs. This efficiency translates into higher flow rates from smaller diameter needles.

- Q. What is the least painful way to insert HlGH-Flo needles?**
- A.** Many patients tell us that they grab the wings above the needle, tightly pinch the skin at the site close together between their fingers, and insert the needle straight into the pinched area with a dart-like motion. You may notice that the HlGH-Flo

butterfly wings are very flexible, making this procedure easy. Each site should be about 2" apart and needles should be inserted at a 90° angle. Make sure any alcohol has evaporated off your sites, and insert all needles dry. You can also talk to your provider about premedication.



- Q. I heard I should insert the needles dry. What is the reason for this?**
- A.** Patients have found that inserting needles wet with drug can be irritating to the mast cells in the skin, so inserting dry allows the needles to penetrate into the subcutaneous layer without impacting the mast cells. This may result in less pain. **If any medication ends up on the needle tip, do not touch the needle. Allow the needle to dry for a few minutes before insertion.**

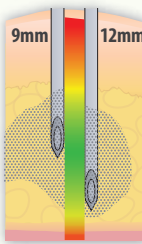


- Q. Why is a 3M Tegaderm™ dressing supplied with each needle?**
- A.** Consensus from several medical centers and many patients was that genuine 3M Tegaderm™ is the preferred brand, so we include it with your needles. We were told it had the least irritation and best adhesion to the skin. If you are a patient with dry or sensitive skin and find that the 3M Tegaderm™ is irritating, you may need to try different dressings, paper tape, or a cloth wrap. Ask your provider for suggestions.

- Q. I have heard HlGH-Flo can improve how my sites fill. How so?**
- A.** HlGH-Flo needles are carefully designed and thoroughly tested to ensure equal flow to every needle. To our knowledge, no other manufacturer goes through these steps. Varying flow rate may be due to: the quality of other sets, placement of the needle (e.g., in scar tissue, or over muscle), needle length or new site location.

- Q. Can HlGH-Flo be used with 20% solutions of IgG as well as 10% immunoglobulin?**
- A.** Yes. HlGH-Flo needles are FDA-cleared for all sub-q medications. The 10% solutions will flow faster than 20%. Flow can be adjusted by choosing a different RMS Precision tubing. If your sites are capable, the needles will be able to deliver the highest flow rate as stated in the drug's package insert.

- Q. How do I know if I am using the correct length needle?**
- A.** Needle length should be determined according to how much sub-q tissue a patient has. 9 mm and 12 mm needles tend to work well with average sized patients; while 6 mm needles may be needed for very thin adults and children. Similarly, larger patients may require 14 mm needles.



- Q. When using more than one needle, do I need to do anything special to be sure the drug is evenly distributed?**
- A.** No special actions are necessary. Equal flow to each site reduces the risk that one site will over-fill. Dynamic Equilibrium automatically slows down the infusion to any site if pressure increases – to help prevent pain, swelling, and oozing. Sites that regularly fill more than others may be an indication that those subcutaneous layers have more space, or that different locations require different length needles.

- Q. Can HlGH-Flo needles be used with other pumps besides the FreedomEdge®?**
- A.** Yes. Our needles are compatible with other pumps, including RMS' FREEDOM60®. However, only RMS Home Infusion systems offer DynEQ™ (Dynamic Equilibrium), which automatically adjusts the flow rate if the tissues at the infusion site become saturated. To achieve the full benefits of DynEQ™, we recommend that you use HlGH-Flo needle sets with our pumps. Constant flow pumps use higher pressures and are not sensitive to the back pressure and, therefore, will continue the stated flow rate beyond what might be comfortable. This may result in painful, red swollen lumps at the site, drug oozing out of the needles and site irritation.

- Q. Why do you call HlGH-Flo "safety" needle sets?**
- A.** The butterfly wings 'snap shut' at the ends, to cover the needle after use. This feature is designed to help prevent accidental needle-stick injuries.

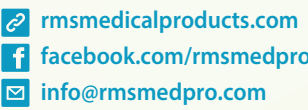


- Q. Can I check for blood return at the same time for all of my sites, or do I have to clamp them each individually?**
- A.** Actually, we recommend you do not clamp your needles at all, ONLY in the case of an emergency or at end of your infusion. When checking for blood return, we suggest following steps shown on reverse side, but always refer to your provider's protocols.

- Q. Is there a best way to remove the needles and dispose of them when I am done with an infusion?**
- A.** If you are unsure of how to handle used needles, ask your healthcare provider to demonstrate. HlGH-Flo has built-in safety. Just 'snap shut' by pressing the wings together at ends to entrap the needle and then dispose of the set. Needle sets should be disposed of in a standard sharps container.

- Q. Where can I get the FreedomEdge®, Precision tubing and HlGH-Flo needles? What if I have more questions?**
- A.** Ask your healthcare provider. Feel free to contact us for more information at **1-800-624-9600** (toll free), **1-845-469-2042** (local), or **info@rmsmedpro.com**.

Also, feel free to ask about the FREEDOM60® Syringe Infusion System, for larger 60 ml syringe infusions.



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