

STEPP-UP Instructors Manual

SESSION 5: IS THE INSULIN PUMP RIGHT FOR ME?

Objectives

Goals of Class:

The purpose of this class is to provide information to patients with type 1 diabetes that will help them to learn what is an insulin pumps and how it can help your diabetes. Specifically, the classes will address the different kind of insulin pumps and the different feature they have. Patients' understanding of the knowledge will translate into specific skills. Patients will be frequently assessed to determine their comprehension of knowledge and acquisition of skills.

After this session, participants will be able to:

- Explain the different kind of insulin pump
- Identify the common software insulin pump have
- Identify what kind of insulin the pump use
- Identify the steps on how to get a pump
- Identify pumps with tubing and a pump without tubing
- Identify where to place the pump

Materials Needed

- Sign-in sheet
- Pens, pencils, markers
- Name tags
- Flip chart - to keep track of “parking lot items” or questions, participant responses
- Sample pump without tubing
- Pump supplies for tubeless pump (pod packet, needle, syringe and PDM)
- Pump supplies for pump with tubing (infusion set, tubing, inserter)
- Copy of guide: Is The Insulin Pump Right For Me?
- Handouts in English and Spanish:
 1. *Agenda*

Before the Session

- Give all participants a reminder call the day prior to class.
 - Ask them to bring water, a snack in case of low blood sugar, and bring a pen or something to write with. Instruct them on class logistics (parking, location, floor, etc.).
- Set up the classroom with enough tables and chairs. Try to arrange it in a formation that facilitates group participation (such as a circle or U shape).
 - Prior to class set up the sample insulin pumps and pump supplies as well as alcohol pads, saline vial, ketone supplies and sharps container.

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Agenda	Estimated Time
I. Welcome	3 minutes
II. Introduction	10 minutes
a. Icebreaker	
III. Is the Insulin Pump Right for Me Session	60 minutes
a. Insulin basics and the pump	
1. What is the difference between insulin with shots and with the pump?	
2. How can the pump help me manage my diabetes better?	
3. What do I need to be able to do to use the pump?	
4. Are all insulin pumps the same?	
5. What are the types of pumps?	
b. Wearing the pump?	
1. Pumps without tubing	
2. Pumps with tubing	
i. Exercise and showers	
ii. Pools and beaches	
iii. Sex	
3. Medical Tests	
c. What is the first step to get a pump?	
1. Will my medical insurance cover the cost of the insulin pump?	
2. Are there other costs that I need to know about the pump?	
3. What if the amount I have to pay from my pocket is too much?	
4. What would a pump cost if I had to pay for it myself?	
d. More about insulin pumps	
1. Pumps with tubing	
2. Pumps without tubing	
e. Where on my body would I wear the pump?	
1. Site rotation	
f. Checking your blood sugar	
1. How would I know what blood sugar range I should aim for?	
g. Conclusion	
IV. Closing	2 minutes

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I. WELCOME (3 MINUTES)

- A. Greet participants as they arrive, give them a nametag to fill out.
- B. Give each participant a participant notebook with handouts

II. INTRODUCTION (10 MINUTES)

[If the space allows, set up tables and chairs in a U shape so everyone can see each other. Make the nutrition session as interactive as possible; ask questions frequently and get everyone involved.]

- A. *Welcome everyone to the program. Begin* by introducing the staff and any volunteers. We are here to learn about insulin pumps.
- B. *By the end of this class, our goal is that you will be able to:*
 - *Understand the different kind of pumps available with tubing and without tubing*
 - *Identify common software in pumps*
 - *Identify the steps on how to get a pump*
 - *Identify where to place pumps*
 - *Identify what kind of insulin is used in a pump*

Are there any questions?

C. *Set some initial ground “rules.”*

[Have these already written out on the flipchart, with space to add additional rules. These can be referred to throughout the program if necessary. If there are no new people, just remind everyone about the rules.]

1. Everyone is to respect each other.
2. One person talks at a time.
3. Please refrain from using your cell phone and texting. If you need to make or receive a call, please step out of the room.
4. Confidentiality—everyone should respect each other’s privacy by not talking about one another outside of the program.
5. Note that some people prefer to say blood glucose and others blood sugar. Have your audience decide which terminology they prefer.

Ask the group if there are any other rules they would like to suggest.

Finally, we encourage all questions. NO question is a stupid question.

Sometimes you might ask a question that we do not know the answer to right away. When this happens, we will write it down on this flip chart to remind us to find out the answer.

-Ask if there are any other rules they would like to add.

-Ask if everyone in the group can agree to all of the rules.

D. **Icebreaker:** *Form a circle and have each person introduce him or herself and tell the group their favorite TV show. You can use a ball to facilitate the process. For example: Mark has the ball and states: “My name is Mark, and I*

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liked the America's Got Talent." Mark would then toss the ball to someone else, and it is then that person's turn. Repeat until everyone has had a chance to introduce him or herself and state an activity they enjoy.

III. INSULIN PUMP SESSION (60 MINUTES)

A. Insulin Basics and the Pump

(Fast paced, keep this to 2 minute or less)

When a person has diabetes, it is best to take insulin as close to the way the body makes it. When someone does not have diabetes, an organ in the body called the pancreas makes insulin for the body. When someone has type 1 diabetes, that person puts insulin into the body with shots or a pump.

An insulin pump is a device to send out insulin into the body. You wear a small machine on the outside of your body.

If you have an insulin pump, you do not have to give yourself insulin shots every day. A computer in the pump controls the flow of insulin into the body.

1. What is the difference between insulin with shots and with the pump?

(Fast paced, keep this to 3 minutes or less)

[Refer participants to the pictures on page 24 of "Is the Insulin Pump Right for Me" guide for the chart that shows the difference between shots and the pump]

With **shots**, you give two types of insulin:

- Long acting insulin that stays in your body all day and all night. It cannot be changed once you have given yourself the shot
- Rapid acting insulin before meals and snacks and to correct high sugar levels

With **the pump**, you give one type of insulin: rapid acting insulin.

- You get a constant little dose of rapid acting insulin that you can adjust whenever you need to.
- That means that you have much more control over the insulin in your body because you can adjust it based on what your body needs.
- The insulin is only short acting.

So, if you need less, you can give less. Or you can give more. You might need less if you are exercising. You might need more after eating a heavy meal of pasta or rice.

2. How can an insulin pump help me manage my Type 1 Diabetes better?

(Fast paced, keep this to 2 minute or less)

The pump can help you reach your blood sugar and A1C targets.

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There are four other reasons that the insulin pump can help you manage your diabetes better:

- ✓ It only uses rapid acting insulin.
- ✓ It sends out rapid acting insulin close to the way the pancreas does.
- ✓ It sends out both basal and bolus insulin in very precise amounts.
- ✓ It helps you figure out what doses to give automatically.

3. What do I need to be able to use the pump?

(Fast paced, keep this to 3 minutes or less)

A machine like the pump takes more steps to use safely than giving shots. So, it is very important that you are ready to move ahead with a new way to treat your diabetes.

If you switch to the pump, you will not be doing this alone. There will be a lot of help and training along the way to make sure you use the pump safely.

To use the pump, you need to be able and willing to:

- Know how important it is to follow the steps to safely care for your diabetes day in and day out.
- See your diabetes team on a regular basis and work with them to understand:
 - How a pump works
 - How you can use it to help you with your diabetes
- Test your blood sugar levels at least 4 times a day.
- Count the carbohydrates or carbs that you are eating so you can put that number into the pump. This is how the pump knows how much insulin to give you for the meals.
- Have enough vision and hearing to see and hear your pump alerts.
- Have your diabetes health care team approve that you are ready and able to use the pump. This means that you are already taking care of your diabetes in a safe and careful way by:
 - ✓ Testing your blood sugars
 - ✓ Treating low blood sugars in the right way
 - ✓ Coming to your visits

4. Are all insulin pumps the same?

(5 minutes or less)

[Refer participants to the pictures on page 3 of “Is the Insulin Pump Right for Me” guide and show sample pumps if you have them]

Companies make different pumps. Although pumps are similar, they have their own unique features. Some pumps have calorie and carb counting screens. Some pumps use tubing and others do not.

Though pumps have some differences, they all have:

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- A small tube that gives you insulin under your skin
- A chamber you fill with insulin every 3 days
- A motor that pushes insulin into your body
- Screens that:
 - Show you the time of day, the date, how much life your battery has left and how much insulin you have gotten
- A way you enter data like your blood sugar and how many carbs you plan to eat
- Buttons to move through the different screens and features
- Alarms to let you know if it is not working like it should
- Safety features that prevent you from giving too much or too little insulin
- A battery or a plug for charging the pump
- Software in the pump that does many things.

Each pump is a little different, but in general, the software will:

- Tell you the date and time
- Store lots of information in your pump like weeks of blood sugar readings, basal rates and bolus doses
- Let the pump send out and correct the amount of basal insulin
- Some pumps have a large database of foods with carb counts
- Figure out the correct amount of insulin you need based on a sugar reading and a carb count that you enter

Each person has their own “pump settings” so that the pump gives the right amount of insulin for them

5. What Are the Types of Pumps?

(5 minutes or less)

[Refer participants to the pictures on page 3 of “Is the Insulin Pump Right for Me” guide and show sample pumps if you have them and pass them around]

PUMP WITH TUBING: Some pumps have tubing. These pumps look like a small box that has tubing. The tubing attaches to a little “button” that you put on yourself every 3 days. These are “tethered” pumps. You can take them on and off.

PUMP WITHOUT TUBING: One type of pump does not have tubing. This means that the whole pump itself is stuck on your body. This pump stays on your body at all times. You also have a hand-held device that sends information to the pump. It is a Personal Diabetes Manager or PDM.

B. Wearing the pump?

(10 minutes or less)

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The pump is attached to your body all the time, even when you are sleeping. A lot of people ask, “**How would I wear it all the time?**”

People who wear pumps find all sorts of clever ways to wear it. They make it work for their lives. Some people are shy and keep it hidden. Others choose to show it. You can choose how you want to wear it.

1. Pumps without tubing:

They are attached to your body, in the place where you put them. So, they stay on all the time:

- When you exercise
- When you take a shower
- When you go swimming
- When you wear a fancy outfit
- When you have sex

2. Pumps with tubing:

In most cases, it takes only a day or two to find the ways that work best for you. Here are just a few ideas of how to wear the pump with tubing:

- Use the clip that comes with the pump and clip it to a waistband or belt.
- Put the pump with or without the clip into the pocket of your pants.
- Keep it in your shirt pocket.
- Slip it into your bra.
- Put the pump in your sock.
- Pumps with tubing can be next to you when you sleep.

When you sleep, you can:

- Clip it to the waist of your pajama pants.
- Clip it onto your pajama top or a pocket.
- Put it next to you in the bed, under your pillow, or on the bedside table.

i. Exercise and showers

You can take off a pump with tubing from the body for up to an hour. The little piece that connects the pump to your body stays on. But you can take off the tubing and the pump itself and then set them down in a safe place.

ii. Pools and beaches?

A little secret about a pump is that you do not have to wear it all the time. So, if you want to spend the summer in the swimming pool or at the beach, you can switch back to shots for a while. If you give yourself insulin every day, you can choose how you want to give it.

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iii. Sex

Having an open talk with your partner often fixes any concerns you may have. There are many ways to have sex when you use the pump with tubing:

- Just leave the pump in place.
- Use the longer tubing that lets you put the pump well out of reach.
- Take the pump off and when you are done, having sex put it back on.

3. Medical Tests

If you are having a medical test such as an X-Ray, CT Scan or MRI, you may have to take the device off. You will have to ask your doctor or the person doing the test if you can leave your pump on or not.

C. What is the first step to get a pump?

(10 minutes or less)

Talk with your diabetes team. Your team will work with you to see if the pump is right for you. A prescription is needed to get the pump and someone from your diabetes team must write a letter to say why you should have a pump. Every year your diabetes team will need to fill out the paperwork all over again so that you can keep getting your supplies. This is one reason why you must see your diabetes team on a regular basis—so they have the information they need to keep you healthy. The pump will last for about 4 years, so about every 4 years, you will be able to get a new pump. But in most cases, not more often than that. So, when you choose the pump you are starting a 4-year relationship.

Many people feel that their quality of life is better by using the insulin pump. They feel like they are more in control. But if you try and it and do not like it you can always go back to shots. Most pump companies let you return the pump within the first 30 days after you receive it.

1. Will my medical insurance cover the cost of the insulin pump?

Not all insurance plans cover the cost of the pump. Some do and some do not. Ask someone from your diabetes team if your health plan will pay for your pump. They might know because they have prescribed pumps before.

If your health plan will pay for a pump, you can call them to find out which pumps you could get. If the pump you are hoping for is not covered, it is ok to ask for what you want. Sometimes a “no” for a certain kind of pump can turn into a “yes” if you have good reasons for a specific type of pump.

Another way to find out is to contact the pump company. The pump company wants to sell you a pump. So, if you give them your name and health plan information they will find out if the insurance you have will cover the pump.

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Many health plans, or insurance companies, pay most of the cost of a pump. But not all the cost. If your plan does cover the pump, they will also find out how much money you would have to pay.

2. Are there other costs that I need to know about the pump?

You will also need to get:

- The supplies for the pump
- The insulin to put in it

When your health plan pays for the pump, they also must pay for the supplies.

Most often, your doctor will need to fill out forms and send them to your insurance company. This is an insurance company rule to get the pump and the supplies. You will need to see your diabetes team regularly. During your visit, they will complete the forms, so you can continue to get your supplies.

3. What if the amount I have to pay from my pocket for the pump is too much?

You do not have to buy the pump if you feel you cannot afford it. Sometimes health plans have something called a “deductible.” That means each year you must cover some part of the costs of your medical care. This often means that it is better to buy big items like a pump later in the year, when you have already paid all that you must for the year. You can go on and off the pump. So, if there is a time when you cannot pay for all the pump supplies, you can go back to taking shots. Then you can return to the pump when you can pay for supplies.

4. What would a pump cost if I had to pay for it myself?

If you do not have health insurance, pumps with tubing can cost between \$4,500 and \$7,000. Monthly supplies cost about \$150 to \$250. The cost of supplies depends on the pump.

Tubeless pumps can cost about \$800 for the Personal Diabetes Manager, or PDM. Monthly supplies cost about \$400 to \$500.

Some pump companies may offer a pump discount if you are paying for it yourself. You can talk to your diabetes team or ask the pump company if they offer any discounts.

D. More about insulin pumps

(10 minutes or less)

[Ask participants: Who can tell me the two main types of pumps? Remind participants if they do not provide the answer.]

There are two main types of pumps. One is a **tethered pump**. This means a pump with tubing. The other is a **tubeless pump**.

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1. Pumps with tubing

[Show participants the pump with tubing and refer to the pages in the “Is the Insulin Pump Right for Me?” manual as you point out the key components.]

Pumps with tubing are about the size of a deck of cards. They come in many types and colors.

[Page 13 shows the Insulin pump, reservoir, time, screen, battery life, and buttons]

There is a **screen** on the pump. **Buttons** are on the pump to program the amount of insulin that goes into the body.

There is a **computer** inside the pump. It controls a **motor**. The motor gives out the insulin in a tiny amount from the **reservoir**.

[Page 14 shows the infusion set includes tubing, adhesive and cannula]

These pumps connect to the body with **tubing**. This tubing runs to a small button like patch that you put on the body. This is the **infusion set**.

The infusion set is made of a small soft plastic tube or a very small steel needle that goes under the skin. This is what lets the insulin into the body. This tube or needle is a **cannula**.

You put the cannula into the body using a device. This device has a needle to help get the cannula under the skin. Then you remove the needle leaving the cannula in place. About every three days, you take the old cannula out and put a new one in. Once you learn how to do it, it is easy.

The insulin goes inside the **reservoir**. The reservoir is a small container. The insulin flows from the reservoir into the tubing and through the cannula that you insert under the skin. That is how your body gets the insulin it needs.

[Page 15 shows how to fill the reservoir]

Filling the reservoir: You follow the directions to put insulin into the reservoir. The reservoir comes out of the pump. You put more insulin in every 2 or 3 days. Once you get the hang of it, it takes about 5 minutes estimated to put on a new set.

When you start, someone from your diabetes team will help you learn how to use the pump with tubing. You will follow the instructions in the book that comes with your pump. After you have been shown how to use the pump, you will do it yourself. If you have questions, you can call the phone number in your pump book for help.

2. Pumps without tubing

[Show participants the pump without tubing and refer to the pages in the “Is the Insulin Pump Right for Me?” manual as you point out the key components.]

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Pumps without tubes attach right onto your body. They do not have tubing. They just have a tiny plastic tube that goes from the pump under the skin. The Omni Pod® is the only tubeless pump on the market today. People call it “the Pod.”

[Page 16 and 17 shows the pump without tubing and how to fill it]

Pumps without tubing have a separate controller. It tells the motor in the pump how much insulin to give out and how often. This controller is called a Personal Diabetes Manager or PDM. The controller is wireless. It looks a bit like a smart phone. It sends commands to the pump, or pod. It controls all the actions of this pump. There is no display screen on the pump, only on the controller.

The “Pod” part of the pump includes the reservoir to store the insulin and has adhesive to stick to your body.

This is how it works [Page 16]:

- i. Fill the Pod with insulin. You will fill the pod with a needle and insulin filled syringe. There is a small hole or port to place the needle. Press down and fill pod with insulin. The Pod automatically gets the air bubbles out of the insulin itself. This is priming. The Pod then performs a series of safety checks to prepare to send out insulin.
- ii. Then you put the Pod where you want it to go. This can be almost anywhere you can give yourself a shot.
- iii. Press start and the cannula inserts itself. It starts sending out insulin into the body.

E. Where on my body would I put the pump?

(5 minutes or less)

[Refer to page 17 in the “Is the Insulin Pump Right for Me?” manual]

The pictures on page 17 show you the places where you can insert the infusion set or put a tubeless pump or give an insulin shot.

Most people attach to the abdomen. This is because it is easy to reach the fatty tissue. People attach it above or below the beltline and waistline.

It is best to avoid areas where the skin is puffy from putting the infusion set in the same place a number of times. Some people have scar tissue that makes it harder for the body to absorb insulin. You will learn where your own body absorbs insulin the best.

1. Site rotation

Site rotation means when you attach the infusion set or tubeless pump to a different place on your body. Your diabetes team will tell you how often to move the set from one place to another. Most people need to replace and move, or rotate, the set every 48 to 72 hours. That means every 2 to 3 days.

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Sometimes the diabetes team may tell you to do it more often. They mostly do this if there is any sign of the pump site not working right.

F. Checking your blood sugar

(5 minutes or less)

[Refer to page 21 in the “Is the Insulin Pump Right for Me?” manual for a sample blood sugar check schedule]

You will still need to test your sugar levels when you are on the pump. It does not do it for you. You will still need to do a finger stick and use a blood sugar meter to test your blood sugar. Your blood sugar number is the number your pump uses to figure out your insulin dose.

Some pumps have blood sugar meters that are “paired” with them. This means that when you check your sugar level with the meter the number is sent to the pump. This makes life easier so you don’t have to enter the number by hand.

Whether your pump has a meter with it or not, you still need to poke your fingertip or arm for blood.

Your diabetes team will tell you how often and at what times you should check your blood sugar once you start on the pump. In most cases, you have to check more often at first, to be sure things are set right. Later you can test less often. You will always have to check blood sugar at least 4 times per day.

Page 21 of your guide has a sample of the schedule to check your blood sugar that you might use when you start on the pump and then once you are set up or have been on it a while.

Your team will also likely have you check your sugars:

- If you feel like your blood sugar level is too low or too high
- Before and after exercise
- Before driving a car

1. How would I know what blood sugar range I should aim for?

When you start on the pump, your diabetes team will tell you the blood sugar range you are aiming for. This is called your target range.

Your target range will be set in your pump. But your food and activity can change your sugar levels. So, your sugar readings may not always be 100% within your target range, especially not at first.

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Your blood sugar readings should stay within your sugar target range most of the time once you learn how to use the pump and your pump settings are where they should be.

If you start to notice that your blood sugar levels are often above or below your target range, this means that your insulin needs to be changed and the settings on your pump may need to be adjusted. You will have to contact someone on your diabetes care team right away so they can help you make the right changes.

G. Conclusion

(Fast paced, keep this to 3 minutes or less)

[Refer to page 25 in the “Is the Insulin Pump Right for Me?” manual for the checklist to help people decide if they are ready for the pump.]

We hope that the information we have shared has helped you start to learn what an insulin pump is and how it works. It is up to you to decide if you want to try using one.

See page 25 of your guide for the checklist to help you see if you are ready to try the pump. You can check “yes,” “no” or “not sure” for each line. Fill it out and talk with your diabetes care team about it. Ask to see a pump to hold and check it out. In most cases insurance covers one or two types of pumps. So be sure to ask to see that type of pump if you have insurance. There is no need to rush into using a pump. A great way to learn about pumps is from people who use them. Your diabetes team may be able to suggest people you can talk to. Or you can look on-line to see what other people write about pumps. Remember that you can get a pump and try it. Then you could change your mind and go back to shots. It is not permanent. If you do get one, you should try it for a few months to see how you adjust to it. The first few weeks of wearing it may be hard because it is new. Then after you have worn it for a while you will begin to see if you like it or not.

Wrap Up (2 MINUTES)

If you are going to start using a pump or want even more information about how to use a pump we have one more class - otherwise this is the last class.

Tell everyone when and where the “How Do I use an Insulin Pump?” meeting will take place and/or who to call when they are ready to take the class.

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