

INSULIN PUMP INITIATION FOR CHILDREN AND YOUTH

VIDEO OVERVIEW

Purpose of the Video Resource

The videos are designed to promote thoughtful conversation about some of the main issues and concerns of parents, young pumpers, and their health care team. They are intended to provide background and context that will be further explored during individual or group teaching sessions. They are not intended to stand alone, but to complement health care team teaching.

The representation of the cast (video interviewees) makes these videos provincial in nature.

It is our hope that they will promote consistent messaging and assist in managing expectations about insulin pump therapy.

Video Series

Introduction:	Key Messages.....	8:23	Web link:	http://youtu.be/JKPP5Lr-oic
Chapter 1:	Challenges and Benefits	17:46	Web link:	http://youtu.be/AHoRZG_OR3E
Chapter 2:	What is a Pump?	6:40	Web link:	http://youtu.be/--wuo_F3eVg
Chapter 3:	Choosing a Pump.....	4:29	Web link:	http://youtu.be/w2qBEtnVLQg
Chapter 4:	The Team.....	5:36	Web link:	http://youtu.be/r2IBskCpw9E
Chapter 5:	Considering a Pump in Nova Scotia.....	5:33	Web link:	http://youtu.be/7MWiVs3oiG4
Chapter 6:	Sick Day Management	4:23	Web link:	http://youtu.be/8blwF8_ZDZo
Chapter 7:	A School Plan.....	6:44	Web link:	http://youtu.be/qSrgC2t9Cfo

Cast

The following individuals are featured in the video series (7 Chapters):

- **Rebecca Ansems**, teen pumper, and her mother, **Shirley Ansems** (Kentville)
- **Melissa Arnold**, mother of 4-year old pumper, **Lucas** (Porter's Lake)
- **Paula Canning**, PDt CDE, IWK Health Centre (Halifax)
- **Wendie Christoff**, RN CDE, Glace Bay Health Care Facility (Glace Bay)
- **Dr. Dominique Couture**, Pediatrician, Yarmouth, NS
- **Sheilagh Crowley**, RN CDE, IWK Health Centre (Halifax)
- **Dr. Beth Cummings**, Pediatric Endocrinologist, IWK (Halifax)
- **Mateo Ferguson**, teen pre-pumper (Dartmouth)
- **Bev Harris**, PDt CDE, Valley Regional Hospital Diabetes Centre (Kentville)
- **Shonda Irving**, RN CDE, Yarmouth Regional Hospital Diabetes Centre (Yarmouth)
- **Kim Kerr**, mother of teen pumper (Wolfville)
- **Janice Knapp**, RN CDE, Valley Regional Hospital Diabetes Centre (Kentville)
- **Dr. Andrew Lynk**, Pediatrician, Sydney, NS
- **Leanna MacDonald**, PDt CDE, Glace Bay Health Care Facility (Glace Bay)
- **Meghan MacLeod**, teen pumper (Wolfville)
- **Dakota MacNeil**, pre-teen pumper (Glace Bay)
- **Dr. Oliva Ortiz-Alvarez**, Pediatrician, Antigonish, NS
- **Olivia Ryerson**, pre-teen pumper, and her mother, **Lynne Ryerson** (Yarmouth)
- **Jason Schelleman**, teen pre-pumper (Halifax)
- **Janice Smith**, RN CDE, IWK Health Centre (Halifax)
- **Sarah Venedam**, RN CDE, St. Martha's Regional Hospital Diabetes Centre (Antigonish)

Introduction: Key Messages (8:23)**Web link:** <http://youtu.be/JKPP5Lr-oic>

This is an overview video that provides a short snippet of information that will be heard throughout the seven (7) chapters. Through interviews with pumpers, families, and diabetes health care team members, the video touches on the steep learning curve, the costs associated with the purchase and maintenance of a pump, and the increased demand for blood glucose testing. The benefits of insulin pump therapy are also introduced, such as increased control and quality of life.

Chapter 1: Challenges and Benefits (17:46)**Web link:** http://youtu.be/AHoRZG_OR3E

This chapter provides an overview of the challenges and benefits of insulin pump therapy. It is intended to provide a balanced perspective and to help to manage expectations of patients, families, and health care professionals who may not fully appreciate the “ins and outs” of pump therapy. Safety issues are explored along with quality of life and flexibility through the eyes of both diabetes health care providers and patients and families currently using pump therapy.

CHALLENGES

- The Learning Curve
 - Drs. Cummings and Lynk discuss the learning curve involved in the initiation of insulin pump therapy.
- More Work/Effort
 - Shonda and Janice discuss the work/effort involved in insulin pump therapy and what is required of individuals starting on a pump.
 - Rebecca (teen pumper) discusses the importance of carb counting correctly, and Shirley (mom) discusses the stress the family encountered when Rebecca first started on the pump.
- Other Considerations: DKA, Infections, and Weight Gain
 - Drs. Cummings and Lynk discuss other considerations of insulin pump therapy such as infections, potential of DKA episodes, etc.
 - Leanna discusses how emotions often play a role in our eating habits. Although careful carb counting and the pump can compensate to keep blood sugars under control, there is the possibility of weight gain; so this needs to be monitored.
 - Lynne discusses the importance of knowing what to do if the pump fails, as electronic devices sometimes do.
- The Cost
 - Dr. Couture, Shonda, and Sarah discuss the costs associated with the initiation of insulin pump therapy, including possible travel for initial set-up and education if living in rural areas or any distance from a specialty team, as well as time away from school, work, etc. Diabetes Centre (DC) staff often help families work through funding options.
- Ongoing Commitment
 - Sarah discusses the ongoing commitment, including the increased demand for glucose testing.
 - Mateo is considering insulin pump therapy and meets with the IWK DC nurse, Sheilagh, to discuss what is involved.

BENEFITS

- Flexibility and Injections and Insulin
 - Dr. Lynk notes that not having to take 4 to 6 needles a day is a welcomed change and many teens have indicated that being on the pump has improved their quality of life.
 - Janice discusses some of the benefits such as needing less insulin in some cases and the overall satisfaction of her patients.
 - Olivia discusses how being on a pump has allowed her to be a “normal child again” (i.e., being able to stay with friends overnight).
 - Paula and Bev discuss the benefits of the pump related to flexibility with meals, specifically for the teen lifestyle.
 - Melissa, mother of 4-year-old Lucas, discusses the flexibility the pump provides for athletic children, and Lucas talks about playing hockey.

Chapter 2: What is a Pump? (6:40)**Web link:** http://youtu.be/--wuo_F3eVg

Diabetes health care providers explain the function as well as misconceptions of an insulin pump. Personal experiences of current pumpers and their families are also shared in this video.

Health Care Providers

- Wendie discusses the dedication and commitment required for insulin pump therapy, including the importance of testing blood glucose regularly.
- Dr. Couture discusses the insulin pump as a tool to help manage diabetes, noting that an insulin pump is not an artificial pancreas.
- Drs. Cummings and Lynk discuss the misconceptions of insulin pump therapy, the function of an insulin pump, and what it can do versus what it cannot.

Pre-Teens/Family

- Dakota discusses entering the right amount of carbs into his pump to avoid high blood sugar.
- Lynne discusses the process of carb counting and calculating levels of insulin required. Olivia explains how she calculates her carbs and the amount of insulin she will need for certain activities.

Chapter 3: Choosing a Pump (4:29)**Web link:** <http://youtu.be/w2qBEtnVLQg>

Diabetes health care providers explain the importance of choosing a pump that best suits an individual's lifestyle, and pumpers and their families explain the reasons for their particular choice of pump. The different features of the pumps currently available in Nova Scotia are also highlighted.

Health Care Providers

- Sheilagh reviews the pumps currently available in Canada with a patient considering pump therapy (Mateo Ferguson). Sheilagh also explains the importance of regular blood glucose monitoring and determining insulin-to-carb ratios.
- Shonda and Janice discuss the importance of families choosing a pump that best suits their lifestyle and review the various features of the three pumps currently available in Canada.

Teen Pumpers

- Rebecca discusses the reasons she had chosen her particular pump (e.g., water proof, and she can bolus using a remote).
- Meghan talks about the flexibility being on the pump provides and no longer having to carry needles with her.

Chapter 4: The Team (5:36)**Web link:** <http://youtu.be/r2lBskCpw9E>

The importance of good education and diabetes health care team support are discussed. The role of team members – specialist physician, nurse, dietitian, and the individual starting on the pump and his/her family, and in some cases, social worker and mental health professional – is reviewed. The importance of an experienced diabetes health care team to guide the individual and/or his/her family through the insulin pump initiation process as well as ongoing management is reinforced.

Health Care Providers

- Janice and Bev discuss the importance of an experienced diabetes health care team to serve the population as a whole (i.e., adult and pediatric). It is very important to be well educated about insulin pumping and having the team in place – dietitian, nurse, and physician as well as a social worker and mental health professional, if required.
- Dr. Couture discusses the importance of the dietitian and nurse in the process of supporting families on the pump.
- Dr. Lynk notes the intensity of the switch from needles to the pump and how it requires the help of the entire team.
- Sheilagh discusses how the pumper and his/her family are important members of the “team.”
- Dr. Ortiz-Alvarez discusses her role and that her young patients are “kids” first, so she examines behavioural changes and issues that may arise for young pumpers.

Family

- Kim discusses the excellent support the family has received from the DC team at the Valley Regional, noting that the quality of care and professionalism have made the disease feel quite manageable.

Chapter 5: Considering a Pump in Nova Scotia (5:33)**Web link:** <http://youtu.be/7MWiVs3oiG4>

Diabetes health care providers explain the process involved before initiating insulin pump therapy and the tools available to help assist both the health care provider and the families.

Health Care Providers

- Janice and Sarah discuss some of the materials found in the *Insulin Pump Initiation for Children and Youth in Nova Scotia Diabetes Centres: Standardized Process with Patient and Provider Tools (2012)* binder produced by the Diabetes Care Program of Nova Scotia and how these tools (patient and health care provider) have helped to standardize the insulin pump initiation process and provide consistency across the province. These tools (information sheets, questionnaires, quizzes, etc.) help families prepare for insulin pump therapy.
- Paula explains the Insulin-to-Carbohydrate Worksheet to a teen-age patient (Jason Schelleman) considering insulin pump therapy.

Chapter 6: Sick Day Management (4:23)**Web link:** http://youtu.be/8blwF8_ZDZo

Health care providers and pumpers/families discuss sick day management as it relates to insulin pump therapy.

Health Care Providers

- Dr. Cummings discusses the serious implications of diabetic ketoacidosis (DKA).
- Janice and Paula discuss the nutritional component to sick day management and how using a pump can make sick day management easier.
- Sarah discusses the flexibility of the pump on days when nutrition is compromised by illness.

Teen Pumper/Family

- Melissa discusses sick day management before and after the insulin pump.
- Meghan and Kim discuss sick day management guidelines and how some of these guidelines are the same whether you are on a pump or not.

Chapter 7: A School Plan (6:44)**Web link:** <http://youtu.be/qSrgC2t9Cfo>

Health care providers and families discuss the importance of having a plan for the child while he/she is in school. This plan should be in place prior to starting on an insulin pump.

Health Care Providers

- Dr. Cummings notes that schools are not responsible for giving injections; however, with an insulin pump, personnel could oversee or supervise a child giving his/her bolus.
- Shonda and Sarah stress the importance of the family meeting with school personnel to find out what resources are in place and to have a plan in place before the child is started on a pump.
- Janice explains that the Valley Regional Hospital DC has developed a School Plan for children and youth with type 1 diabetes. The plan addresses a number of issues such as when testing takes place, who will be administering the boluses, who is called when there is a problem, etc.

Family

- Melissa discusses what will be available for Lucas.
- Lynne discusses how she can relax knowing there is some guidance and supervision at the school and that she will be called immediately should any problems arise.