

Reverting back to MDI injections - Conversion from insulin pump therapy to multiple daily dose injections v3

Reverting Back to MDI Injections. Conversion from Insulin Pump Therapy to Multiple Daily Dose Injections

Patient Information

Paediatric Diabetes Service

- Author ID: LS/CB
- Leaflet ref: CH 067
- Version: 3
- Leaflet title: Reverting Back to MDI Injections. Conversion from Insulin Pump Therapy to Multiple Daily Dose Injections
- Last review: October 2022
- Expiry Date: October 2024

Information for children, young people, parents and carers

This leaflet is only to be used for insulin pump patients as required. You/ your child may need to revert to insulin injections for a period of time; for example in the event of pump failure, pump break or for a holiday.

It is very important that:

- You have / your child has a written record of your / their total daily basal insulin dose.
- You know your / your child's insulin carbohydrate ratio; i.e. how much insulin is required for carbohydrate food.
- You know your / your child's insulin sensitivity factor; i.e. how much insulin is required to correct high blood glucose levels.

How to calculate your long acting insulin dose

1 Find your/ your child's total daily **basal** dose of insulin from the memory of the pump or most recent clinic letter. Your nurse can help you find the memory of the pump if required, or you can refer to the pump manual / 24 hours pump company help line.

2 Add 10% to the total daily **basal** dose, and this will be the long acting insulin dose required, e.g. Levemir®, Lantus® or Tresiba®.

3 You/ your child will require rapid acting insulin for boluses with food and corrections e.g. Novorapid®, Humalog® or Apidra®. Use the usual insulin to carbohydrate ratio (ICR) for food, and insulin sensitivity factor (ISF) for correction doses.

Example:

- Average total daily basal insulin dose via the insulin pump is 20 units and add 10%, therefore $20 \text{ units} + 2 \text{ units} = 22 \text{ units}$ of Levemir®, Lantus® or Tresiba® required using an insulin pen.
- Give rapid acting insulin (Novorapid®, Humalog® or Apidra®) for carbohydrate as per insulin usual carbohydrate ratio and correction doses as per usual insulin sensitivity factor, using an insulin pen.

This formula provides a starting dose; further adjustments may be necessary depending on blood glucose levels. Remember to always have a supply of rapid acting and long acting insulin and insulin pens that can be used in the event of a problem with the pump. Ensure that your/ your child's insulins have not passed their expiry dates.

Who to contact for further help or advice

Do not rely on this leaflet alone for information about your child's treatment.

If you require any further information, please telephone 01942 483598 or 01942 822188 and ask for your Diabetes Nurse Specialist.



Version number: **3**
Last modified date: **03rd July 2026**

All rights reserved © 2026
WWL Teaching Hospitals NHS Foundation Trust