

# Hybrid closed loop insulin pump therapy in children and young people

## Patient information leaflet

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Whiston Hospital  
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Prescot, Merseyside, L35 5DR  
Telephone: 0151 426 1600

Southport Hospital  
Town Lane, Kew, Southport,  
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Ormskirk Hospital  
Dicconson Way, Wigan Road,  
Ormskirk, Lancashire, L39 2AZ  
Telephone: 01695 577 111

If you need this leaflet in a different language or accessible format  
please speak to a member of staff who can arrange it for you.

اگر به این بروشور به زبان دیگر یا در قالب دسترس پذیر نیاز دارید،  
لطفاً با یکی از کارکنان صحبت کنید تا آن را برای شما تهیه کند.

Jeśli niniejsza ulotka ma być dostępna w innym języku lub formie,  
proszę skontaktować się z członkiem personelu, który ją dla Państwa przygotowuje.

Dacă aveți nevoie de această broșură într-o altă limbă sau într-un format accesibil,  
vă rog să discutați cu un membru al personalului să se ocupe  
de acest lucru pentru dumneavoastră

如果您需要本传单的其他语言版本或无障碍格式，请联系工作人员为您安排。

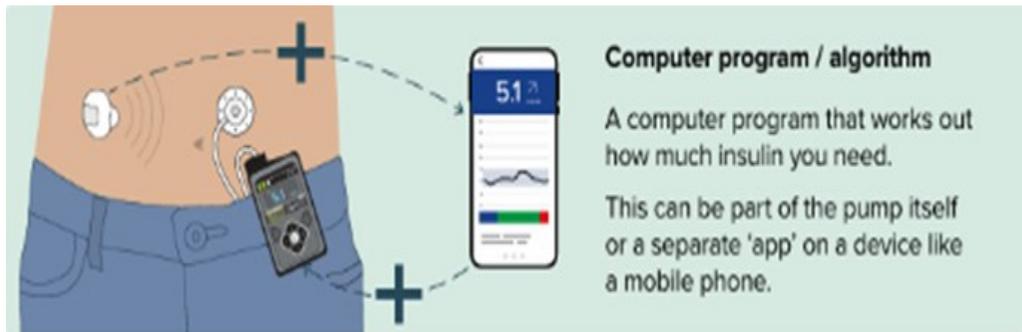
إذا احتجت إلى هذه النشرة بلغة أخرى، أو بتنسيق  
يسهل الوصول إليه، يرجى التحدث إلى أحد الموظفين لترتيب ذلك لك.

## What is hybrid closed loop insulin pump therapy?

## Notes

There are three parts of the system:

- Real time Continuous Glucose Monitor (CGM) – your sensor.
- The pump – you wear this like your CGM and it delivers the insulin.
- A computer programme (algorithm) that uses math to calculate what insulin you need, based on what your blood glucose level is on your sensor



## Can I have one?

All children and young people with diabetes in the UK can have a Hybrid Closed Loop (HCL) system.

## Any questions?

Questions I want to ask my diabetes team about insulin pumps:

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This leaflet has been written to help manage diabetes at home. Do not rely on this leaflet alone for information about your child's treatment.

If you require any further information, please telephone and ask for your paediatric diabetes specialist nurse.

The diabetes team are here to support you, if you have any questions contact the diabetes team on:

### Ormskirk:

- Paediatric Diabetes Office: 01695 656 766 or 01695 656 867.
- Children's Ward, Ormskirk Hospital: 01695 656 912.

### Whiston:

- 0151 430 1404.

## How does it work?

### How do I use it?

- You place your CGM (sensor) as normal.
- You then place your pump in a similar way.
- You will use the pump or a hand held device to programme your settings.

Once you are set up, you need to monitor your blood glucose as normal, count your carbohydrates every time you eat, and put these into your pump.

You need to change the pump cannula/pod every 2-3 days, or sooner if any problems occur.

At the beginning, there is a lot to learn and you will require extra appointments with the team to make sure you understand how to use the pump. It can take a couple of weeks or even a couple of months to feel comfortable with your new system.

Most people feel happier with their diabetes once they are used to their pump.

The diabetes team will be there to support you, provide pre-pump education and review once the pump has been commenced.

## Will it help?

### Why should I have one?

- You will no longer need to do injections several times per day.
- Studies have shown that your HbA1c can improve.
- There is no increased risk of hypoglycaemia.
- Parents spend less time managing their children's diabetes.
- Better quality of life including sleep.

### What could go wrong?

- The pump or cannula can fail so you still need to carry emergency equipment.
- You need to wear the pump all of the time and some people find it difficult to get used to.
- If you are unwell, you will still need to finger prick and give pen injections.
- The pump algorithm does not know when or how much you are going to eat so you still need to count carbohydrates and bolus through the pump to achieve optimal results.

## How does it work?

	<b>Tandem T-slim X2</b>	<b>CamAPS FX</b>	<b>Omnipod 5</b>	<b>Medtronic</b>
<b>Pump type</b>	Tethered	Tethered	Tubeless	Tethered
<b>Timing</b>	Commit to a 4-year period	Commit to a 4-year period	Can change anytime	Commit to a 4-year period
<b>CGM compatibility</b>	Dexcom G6 Dexcom G7	Dexcom G6 Libre 3	Dexcom G6, Dexcom G7 Libre2+	Guardian 4
<b>Controls</b>	On pump	Android smartphone	Omnipod 5 controller	On pump
<b>Charging</b>	Rechargeable	AAA battery	Battery in pod controller is rechargeable	AA battery
<b>Remote monitoring for parents/carers</b>	Glucose data via Dexcom follow app	Glucose data via Dexcom follow app	Glucose data via Dexcom follow app	Glucose data via CareLink follow app
<b>Data sharing with Diabetes Team</b>	Glooko (download needed)	Glooko (real-time)	Glooko (real time)	CareLink (auto upload if has a mobile phone)
<b>Age range</b>	6 years and over	1 year and over	2 years and over	7 years and over