

A guide to your child's CADD pump

Information for children, families and carers

We have given you this factsheet because your child is due to receive treatment at home via a computerised ambulatory delivery device (CADD) pump. It explains what a CADD pump is, how it works and how to use it safely at home. We hope it will answer some of the questions you may have. Please read it carefully and keep it in a safe place. If you have further questions or would like more information, please contact us using the details at the end of this factsheet.

What is a CADD pump?

A CADD pump is a small infusion device which is linked to your child's central line. It allows your child to receive medications and other fluids safely at home. The pump can deliver the medication or fluid continuously or as needed at a certain time.

Before your child leaves hospital, we will explain how to use the CADD pump and what to do if you experience any problems. We will make sure that you understand how it works and that you and your child feel confident using it.

We will also program the CADD pump to deliver the medication or fluid at the exact dose your child's doctor has prescribed and start the treatment. We will then lock the keypad so that the settings cannot be changed accidentally.

It is important that young children are always supervised while they are using a CADD pump.

How does a CADD pump work?

The CADD pump is attached to an infusion bag or 'reservoir' (also known as a cassette) which contains medication or fluid, as needed. This is then attached to your child's central line and placed into a bag or a pouch, which you (or your child) can wear on your back or shoulder, or you can place it on the back of a wheelchair or pushchair.



Always make sure that any external lines are kept safe from being pulled or trapped. For example, under wheelchair wheels and in car doors.

Battery power

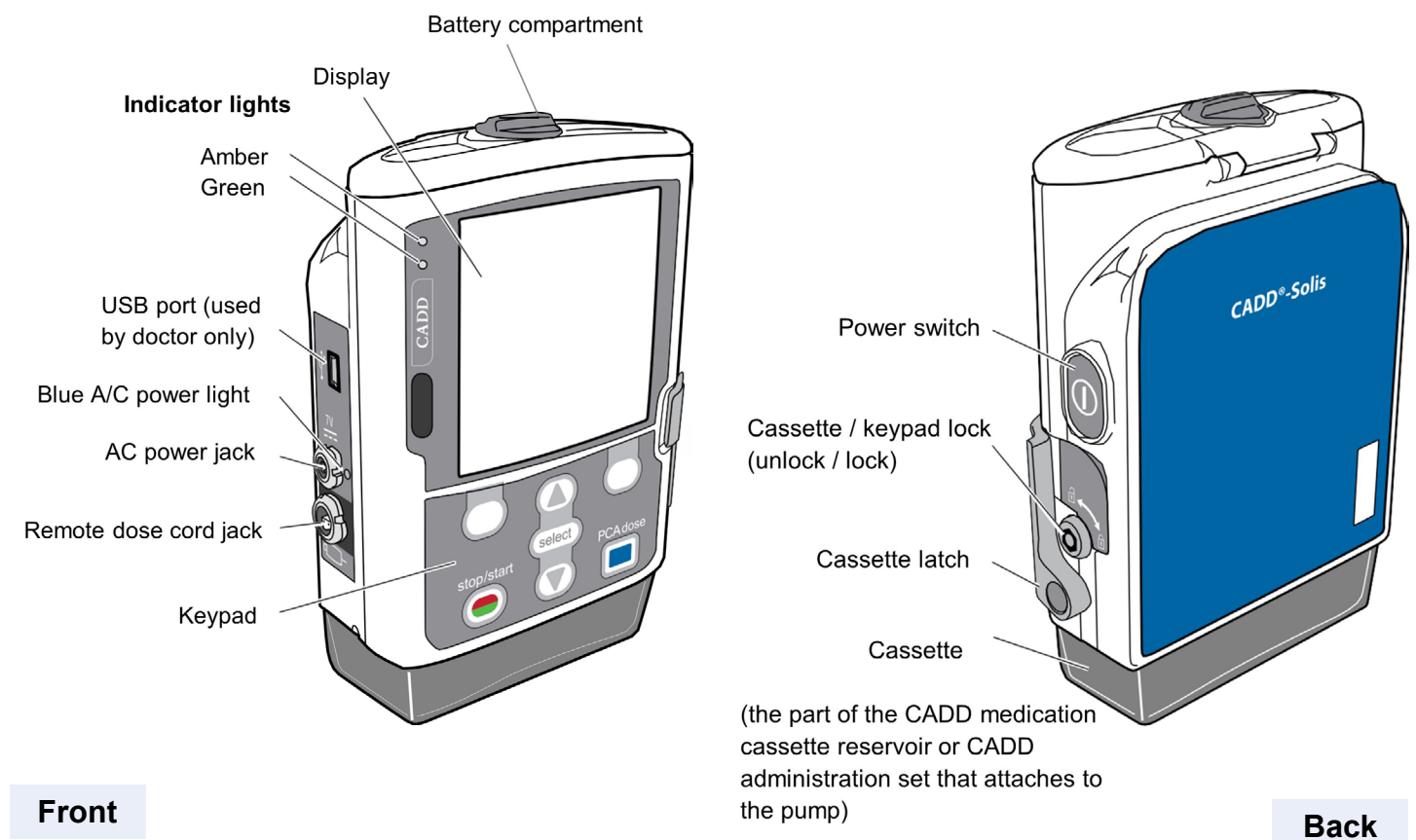
The CADD pump has a rechargeable battery pack and a charging cable. We advise charging the CADD pump battery pack overnight to allow your child to move freely during the day without the risk of running out of power. To do this, attach the battery pack to the power adapter (AC cord) and plug it into a mains plug socket.

If the battery pack fails, you will need to replace it with four AA batteries. We recommend making sure you always have some AA batteries at home in case of emergencies.

If the battery pack fails, please follow the instructions below:

1. Make sure the CADD pump is stopped and powered off.
2. Turn the knob on the battery door to the left (anticlockwise) to open the battery door.
3. Hold the pump at an angle to remove the faulty battery pack.
4. Insert four new AA batteries.
5. Close the battery door and turn the knob on the battery door to the right (clockwise). This will lock the battery door.
6. Press the power button to turn on. The display will ask if you want to start a new patient. Select 'No'. Press 'Start pump'.

It is important that you return any faulty battery packs to us, so we can fix them.

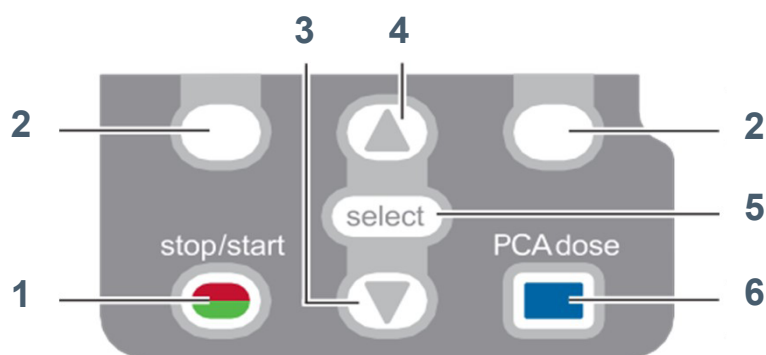


Display

The display shows information and messages. The display will turn itself off to save power. You can press any key on the keypad to turn the display on.

Keypad keys:

1. Starts and stops pump delivery.
2. 'Soft keys' let you answer a question on the pump's display. They also let you move through some of the pump's screens.
3. Allows you to scroll down menus.
4. Allows you to scroll up menus.
5. Selects a menu item.
6. **This key is not used for your child's treatment.**



Indicator lights

The green and amber indicator lights can flash at the same time. This means that the pump is running but that something will need to be looked at soon. This could be:

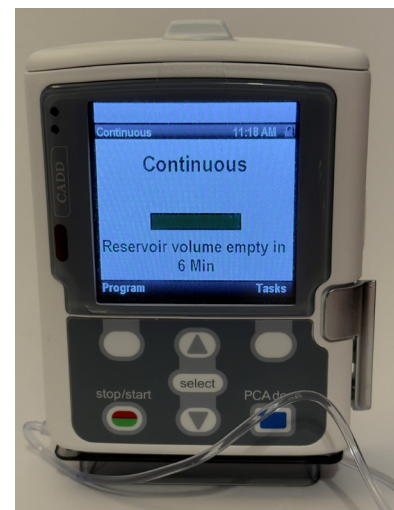
- the battery is low
- the reservoir volume is low (the bag or cassette will be empty soon)

Green light	Amber light
The green light flashes when the pump is running and delivering medication or fluid.	<p>The amber light flashes when:</p> <ul style="list-style-type: none">• the CADD pump has stopped• there is an alarm• the battery is low• the reservoir volume is low <p>If the amber light is continuous, it means the CADD pump is not working. Contact us using the details at the end of this factsheet if you are unable to fix the problem using the advice in this guide.</p>

How will I know if the CADD pump is working?

At the top of the screen, there should be a green message that says 'running'. If it is red and says 'stop', it is not running.

We have programmed your child's CADD pump to run continuously. You should be able to hear an intermittent whirring sound. This means it is working correctly.



CADD pump alarms

If your child's CADD pump is sounding an alarm, please look at the display screen. This will show you what the problem is.

Reservoir volume low

This alarm means your child's infusion has almost finished.

Press the 'Acknowledge' button and the CADD pump will continue to deliver treatment as normal.

This alarm should occur just before your child is due to attend Piam Brown ward. If you were **not** expecting this alarm, contact us using the details at the end of this factsheet.



Reservoir volume is zero

This alarm means your child's infusion has finished.

If you were expecting this alarm:

1. Clamp the line.
2. Power down the CADD pump using the power switch on the right-hand side of the CADD pump.
3. The screen will display the message 'Power down?'. You should select 'Yes'.

If you were **not** expecting this alarm, follow the instructions above and contact us using the details at the end of this factsheet.



Downstream occlusion. Clear occlusion between pump and patient

This alarm means there is an obstruction between the CADD pump and your child. If this message appears on your child's screen:

1. Press the 'Silence' button.
2. Then press the 'Help' button and follow the instructions.
3. Check your child's line is unclamped.
4. Check that there are no kinks in the line and no obstructions.
5. The pump should restart automatically. If it does not start automatically, press the 'Stop/start' button.
6. Make sure you can see the green 'running' display and you can hear a whirring noise again.

If it does **not** restart, contact us using the details at the end of this factsheet.



Upstream occlusion. Clear occlusion between pump and reservoir

This alarm means there is an obstruction between the fluid bag and the CADD pump. If this message appears on your child's screen:

1. **Ignore** the instruction asking you to spike the bag.
2. Check that there are no obvious kinks or obstructions. If there is, fix this and the CADD pump should restart.

If it does **not** restart, contact us using the details at the end of this factsheet.



Air in-line detected

This alarm means there is air in the line. If this message appears on your child's screen:

1. Immediately clamp the line.
2. **Do not follow the instruction to prime the tubing. Only a trained nurse can fix this.**
3. Press the 'Silence' button.
4. Turn the CADD pump off.
5. Contact us using the details at the end of this factsheet **immediately**.



Day-to-day life with your child's CADD pump

When your child is attached to the CADD pump, you and your child will need to make some minor adjustments to their daily activities to protect the CADD pump from getting damaged. For example:

Bathing

When your child has a bath or shower, you will need to put the CADD pump on a stool or chair next to the bath or shower. Water can damage the CADD pump, so it is important that it does not get wet.

Sleeping

When your child goes to bed, you will need to put the CADD pump on a chair next to their bed. Make sure that the bag containing the CADD pump is kept upright. This is to ensure no air gets into the line which will prevent the CADD pump from working. You must make sure you are close enough to hear the pump if an alarm goes off overnight, either by sleeping nearby or placing a baby monitor next to the pump.

Exercise

Your child should not play any contact sports (such as rugby or football) or go swimming while they are using the CADD pump.

Small children and pets

Keep the CADD pump out of the reach of small children and pets. Do not allow them to press buttons or play with the CADD pump.

It is also very important that the CADD pump is never dropped or hit.

When to seek medical help

Contact us for advice using the details at the end of this factsheet if:

- your child's dressing becomes damp or wet
- your child's CADD pump is leaking
- your child experiences any side effects from the treatment
- your child feels unwell or has a temperature of 38°C or higher
- your child vomits
- your child has any pain or swelling around the central line area (around their chest, travelling along their arm or neck)
- you notice any leaking or swelling from the entry site of your child's central line
- you see blood in your child's central line
- you are unable to resolve any warning alarms using this guide

In an emergency

Call **999** immediately if your child has:

- chest pains
- difficulty breathing (wheezing or shortness of breath)
- swelling of the throat or face

If your child experiences any of these symptoms, they will need urgent medical attention.

Contact us

If you have any questions or concerns about your child's CADD pump, please contact us.

Piam Brown day ward

Telephone: **023 8120 4249** (Monday to Friday (excluding bank holidays), 8am to 6pm)

Piam Brown ward

Telephone: **023 8120 4816** (24-hour line)

Diagrams and text adapted with permission from Oxford University Hospital's "Going home with a CADD pump" patient information leaflet and Smiths Medical "Continuous Delivery Mode CADD-Solis VIP Ambulatory Infusion Pump" patient information guide.

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For help preparing for your visit, arranging an interpreter or accessing the hospital, please visit www.uhs.nhs.uk/additionalsupport

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