

FACT SHEET | SEPTEMBER 2023

# Colonoscopy and type 1 diabetes (insulin pump)

## RSS Diabetes Service

A colonoscopy involves fasting, changes in your diet, physical activity levels, diabetes medications and may cause stress, anxiety and discomfort. These factors can also disrupt your usual blood glucose control and could result in hypoglycaemia (low blood glucose) or hyperglycaemia (high blood glucose).

Preparing for a procedure and responding to changes to your blood glucose following your procedure can reduce your risk of infections. Your diabetes team can help you during your admission and support your safe discharge home.

## How can I prepare for my procedure?

Please bring with you to the hospital:

- All your medications and a current list.
- Your blood glucose/ketone meter, continuous glucose monitor (CGM), relevant consumables, your glucose diary and/or CGM system report. In most instances, you can continue to use your own equipment.
- Your insulin pump and additional infusion sets and reservoirs. You may need to change your cannula, tubing or site before or after your procedure.
- A copy of your current insulin pump reports and/or insulin delivery settings.
- A copy of your *Hypoglycaemia Action Plan* and *Hyperglycaemia/Sick Day Action Plan*.

Continue to check your blood glucose. If you have low blood glucose, follow your *Hypoglycaemia Action Plan*. If you have high blood glucose, check your blood ketone level and follow your *Hyperglycaemia Action Plan*.

Please ask a family member or friend to bring you. Do not drive yourself to your hospital admission.

## I am also on oral diabetes medication. What about this?

If you use a **sodium glucose co-transporter 2 (SGLT2) inhibitor** such as dapagliflozin (Forxiga<sup>®</sup>), dapagliflozin and metformin XR (Xigduo<sup>®</sup>), dapagliflozin and saxagliptin (Qtern<sup>®</sup>), empagliflozin (Jardiance<sup>®</sup>), empagliflozin and metformin (Jardiamet<sup>®</sup>) and empagliflozin and linagliptin (Glyxambi<sup>®</sup>), **stop taking this medication at least 3 days before your procedure** (e.g. two days prior and the day of your procedure).

If you use other **oral diabetes medication** (e.g. Metformin): stop taking this medication when your bowel preparation begins (e.g. fluids only).

## Are there specific instructions for my type of insulin?

Yes, a colonoscopy also requires a bowel preparation, a 'low residue' or 'clear fluid' diet and a period of fasting. Specific instructions are required on those days and on the day of the procedure.

## What to do when my bowel preparation begins?

- When you begin your bowel preparation:
    - continue your current basal rate/s.
    - a temporary basal rate of 80% (20% less than usual basal rate) OR a higher blood glucose target (e.g. 6.7mmol/L or exercise type target of 8.3mmol/L) could be programmed to minimise your risk of hypoglycaemia.
  - When restricted to a **low residue** diet two days prior to your procedure:
    - reduce your mealtime insulin bolus to match the carbohydrates in the meal to be eaten OR
    - reduce usual mealtime insulin bolus by 50%, or as otherwise instructed.
  - When restricted to a **clear fluid** diet two days (modified) OR one day (standard) prior to your procedure:
    - reduce your mealtime insulin bolus to match the carbohydrates in the fluids consumed OR
    - reduce usual mealtime insulin bolus by 50% OR
    - if no carbohydrates are consumed, do not give your mealtime insulin bolus.
  - A correction bolus insulin dose (based on your insulin pump settings) may be given at main mealtimes if you are above your blood glucose target (even when your diet is restricted).
- Check your blood glucose every 2 hours from the time you wake until the time you arrive at the hospital.
  - If you have low blood glucose, follow your *Hypoglycaemia Action Plan* and use clear apple juice, sugar containing cordial or jelly (avoid red, blue or orange jelly) for treatment.
  - If you have high blood glucose, follow your *Hyperglycaemia Action Plan* which will include a correction bolus insulin dose and blood ketone testing instructions. A blood ketone level greater than 0.6mmol/L may indicate insulin pump site failure (e.g. damaged cannula, cannula kink or leak) and that you are at risk of developing diabetic ketoacidosis.
  - Insert a new cannula the day prior to your procedure and in a site away from the procedure area (e.g. do not use the buttock area).
  - Your cannula must not be metal. If you require an alternate cannula, please discuss with your diabetes specialist nurse.

## What to do on the day of the procedure?

Because your insulin pump uses only rapid acting insulin, continue using your insulin pump to deliver your basal insulin until you arrive at the hospital.

- On the day of procedure, you are allowed clear fluids up until you are required to fast.
  - Do not take your diabetes tablets
  - If your procedure is in the morning, you will be fasting from 6:00am:
    - do not take your breakfast insulin bolus as you will not be eating.
    - a correction bolus insulin dose (based on your insulin pump settings) may be given at breakfast time if you are above your blood glucose target (even when fasting).
  - If your procedure is in the afternoon, you will be fasting from 11:00am after a 'clear fluid' breakfast:
    - reduce your breakfast insulin bolus to match the carbohydrates in the clear fluids consumed OR
    - if no carbohydrates are consumed, do not give your breakfast insulin bolus.
    - a correction bolus insulin dose (based on your insulin pump settings) may be given at breakfast time if you are above your blood glucose target (even when fasting).
- Check your blood glucose every 2 hours from the time you wake until the time you arrive at the hospital.

- If you have low blood glucose, follow your *Hypoglycaemia Action Plan* and use clear apple juice, sugar containing cordial or jelly (avoid red, blue or orange jelly) for treatment.
- If you have high blood glucose, follow your *Hyperglycaemia Action Plan* which will include a correction bolus insulin dose and blood ketone testing instructions. A blood ketone level greater than 0.6 mmol/L may indicate insulin pump site failure (e.g. damaged cannula, cannula kink or leak) and that you are at risk of developing diabetic ketoacidosis.

## What will happen when I am admitted?

Please inform medical and nursing staff of any of the following:

- hypoglycaemia and treatment used
- hyperglycaemia and action taken
- current rate of basal insulin (e.g. usual or temporary) and target blood glucose (e.g. usual or modified).

The medical and nursing staff will check your blood glucose. If your blood glucose is above 10.0mmol/L, a correction bolus insulin dose may be used to return your blood glucose levels to target, aid recovery and assist your body to fight infection.

Where possible, self-care of your insulin pump is encouraged and supported. Regional hospitals require people with type 1 diabetes using insulin pumps to chart their insulin pump rates on the insulin pump inpatient rate record (MR-CIR). Your medical and nursing staff need to know how you are using your insulin pump so that they can prevent complications and assist you in your recovery.

## What will happen after my procedure?

The medical staff may suggest some temporary adjustments to your basal insulin rates. Your mealtime bolus insulin and any oral diabetes medication (e.g. Metformin or a sodium glucose co-transporter 2 (SGLT2) inhibitor) will be restarted when you are comfortably eating and drinking again.

## What support do I have on discharge?

The medical and nursing staff will assist you to restart your medications and plan your discharge. They will also be available after you are discharged home to monitor your recovery and discuss any concerns that you may have.

Your diabetes team are available to discuss your return to your usual diabetes management or provide alternative instructions. If required, your diabetes team can arrange a follow up appointment to review your diabetes management after discharge.

Please ask a family member or friend to take you home. Do not drive yourself.

## Additional information

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## Where can I get more information?

- Diabetes Australia [www.diabetesaustralia.com.au](http://www.diabetesaustralia.com.au)
- National Diabetes Services Scheme [www.ndss.com.au](http://www.ndss.com.au)
- Juvenile Diabetes Research Foundation [www.jdrf.org.au](http://www.jdrf.org.au)
- My D (for under 25s) [www.ndss.com.au/MyD](http://www.ndss.com.au/MyD)

## For more information

### Rural Support Service

### Diabetes Service

PO Box 3017, Rundle Mall

ADELAIDE SA 5000

Email: [Health.DiabetesService@sa.gov.au](mailto:Health.DiabetesService@sa.gov.au)

[www.chsa-diabetes.org.au](http://www.chsa-diabetes.org.au)

[www.sahealth.sa.gov.au/regionalhealth](http://www.sahealth.sa.gov.au/regionalhealth)

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