

FACT SHEET | SEPTEMBER 2023

Colonoscopy and type 1 diabetes (insulin injections)

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 and your diary.
- Your insulin injecting devices and additional consumables. You may like to use your own insulin pens before or after your procedure.
- 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/Sick Day 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[®]), dapagliflozin and metformin XR (Xigduo[®]), dapagliflozin and saxagliptin (Qtern[®]), empagliflozin (Jardiance[®]), empagliflozin and metformin (Jardiamet[®]) and empagliflozin and linagliptin (Glyxambi[®]): **stop taking this medication at least 3 days before your surgery** (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 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?

For long acting (basal) insulin

- Continue your usual insulin dose/s OR
- Reduce your evening basal insulin dose by 20% if you have had recent overnight hypoglycaemia.

For rapid acting (mealtime) insulin

- When restricted to a **low residue** diet two days prior to your procedure:
 - reduce your mealtime insulin bolus dose to match the carbohydrates in the meal to be eaten OR
 - reduce your 'set' mealtime insulin bolus dose by 50%.
- When restricted to a **clear fluid** diet two days (modified) or one day (standard) prior to your procedure:
 - reduce your mealtime insulin bolus dose to match the carbohydrates in the fluids consumed OR
 - reduce your 'set' mealtime insulin bolus dose by 50% OR
 - if no carbohydrates are consumed, do not give a mealtime insulin bolus dose/s.

For pre-mixed insulin

- Continue your usual insulin dose/s while eating and drinking is not restricted:
- Reduce dose/s by 50% when restricted to 'low residue diet' OR 'clear fluids' only.

For co-formulation insulin

- Continue your usual insulin dose/s while eating and drinking is not restricted:
- Reduce dose/s by 50% when restricted to 'low residue diet' OR 'clear fluids' only.

- 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 that you are at risk of developing diabetic ketoacidosis.

What to do on the day of the procedure?

On the day of procedure, you are allowed clear fluids up until you are required to fast.

- Do not take your diabetes tablets.

For long acting (basal) insulin

- Continue your usual insulin dose/s.

For rapid acting (mealtime) insulin

- If your procedure is in the morning, you will be fasting from 6:00am:
 - do not take your breakfast bolus insulin dose as you will not be eating.
 - a correction bolus insulin dose (based on your insulin sensitivity factor/correction factor) 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 bolus insulin dose to match the clear fluid carbohydrates to be consumed OR
 - reduce your 'set' breakfast insulin bolus dose by 50% OR
 - if no clear fluid carbohydrates are consumed, do not give a mealtime insulin bolus dose.
 - a correction bolus insulin dose (based on your insulin sensitivity factor/correction factor) may be given at breakfast time if you are above your blood glucose target (even when fasting).

For pre-mixed insulin

- If your procedure is in the morning, you will be fasting from 6:00am: reduce your usual breakfast dose by 50%.
- If your procedure is in the afternoon, you will be fasting from 11:00am after a clear fluid breakfast: reduce your usual breakfast dose by 50%.

For co-formulation insulin

- If your procedure is in the morning, you will be fasting from 6:00am: do not take your usual breakfast dose.
- If your procedure is in the afternoon, you will be fasting from 11:00am after a clear fluid breakfast: reduce your usual breakfast dose by 50%.

- 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 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.

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 devices are encouraged and supported. Regional hospitals require people with type 1 diabetes using insulin devices to use the supplied safety pen needles. Your medical and nursing staff need to know what insulin devices you are using so that they can prevent complications and assist you in your recovery.

What will happen after my procedure?

Your insulin injections and any oral diabetes medication (e.g. Metformin or a sodium glucose co-transporter 2 (SGLT2) inhibitor) will be restarted as soon as possible after your procedure. This is usually 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 in preparation for your discharge home 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

Where can I get more information?

- Diabetes Australia
- National Diabetes Services Scheme
- Juvenile Diabetes Research Foundation
- My D (for under 25s)

www.diabetesaustralia.com.au

www.ndss.com.au

www.jdrf.org.au

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

www.chsa-diabetes.org.au

www.sahealth.sa.gov.au/regionalhealth

Public-I3-A2

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