

Guidance for Diabetic Persons having bowel preparation for a flexible sigmoidoscopy or colonoscopy or a combined gastroscopy and colonoscopy

Information for patients

Do I need to contact the Endoscopy Department in advance?

In preparing for your procedure it is important to inform the endoscopy department that you have diabetes; you may have already discussed this with the hospital doctor in clinic. If you are not sure we know about your diabetes phone 01225 821425 or 01225 821788 and speak to one of the registered nurses.

We aim to place people with diabetes early on in the day to avoid prolonged fasting.

It is important all diabetics have had their kidney function checked with a blood test within three months of their bowel preparation. If you have **heart failure** or **kidney failure** this should be discussed with our department, as we may need to adjust the recommended fluid intake, or provide your laxative bowel preparation as an inpatient.

If you have reduced kidney function **and have received Picolax or Plenvue** please contact the department as we may need to adjust the bowel preparation.

This leaflet is for people with type 1 diabetes and type 2 diabetes who are on medication for their condition. If you have type 2 diabetes managed by diet alone you do not need to read this leaflet.

Diabetes Treatments

What type of medication am I on?

- **Oral Diabetes medication (tablets):** Metformin, Pioglitazone, Acarbose, Repaglinide, Nateglinide
 - **Sulphonylureas:** Gliclazide, Glibenclamide, Glipizide, Glimepiride,
 - **DPP-IV inhibitors:** Sitagliptin, Saxagliptin, Vildagliptin, Linagliptin, Alogliptin
 - **SGLT2 Inhibitors:** Dapagliflozin, Empagliflozin, Canagliflozin
- **Injected diabetes medications:**
 - **Long acting insulin:** Lantus (Glargine), Levemir (Detemir), Abasaglar (Glargine), Toujeo, Tresiba (Degludec)
 - **Intermediate acting insulin:** Insulatard, Humulin I, Insuman basal, animal Isophane
 - **Short acting insulin:** Novorapid, Humalog, Apidra, Actrapid, Humulin S, Insuman Rapid, animal neutral
 - **Mixed insulin:** Novomix 30, Humulin M3, Humalog Mix 25/ 50, Insuman Comb 15/25/50.
 - **Other injectable treatment (GLP-1):** Exenatide (Byetta), Liraglutide (Victoza), Lixisenatide (Lyxumia), Bydureon, Dulaglutide (Trulicity), Semaglutide (Ozempic)

If you are unsure which type of insulin or medications you take please contact your Diabetes Specialist Nurse, Practice Nurse or General Practitioner for personalised advice.

Bowel Preparations

Klean Prep, Moviprep, Plenvue and Picolax are strong laxatives and will cause diarrhoea. It is advisable to stay within easy reach of a toilet once you have taken them.

Flexible sigmoidoscopy is performed with an enema on the day of the procedure in the Endoscopy Department, and has no bowel preparation prior to this.

For female patients: if there is any chance of being pregnant please notify the department. If you take oral contraceptives the diarrhoea may reduce their effectiveness. Continue taking the oral contraceptives but use other precautions for the remainder of that cycle.

Three days before

Stop taking iron tablets, bran or ispaghula (i.e. Fybogel® or Isogel®)

Two days before

- For two days before your examination you should have only light meals and avoid red meat, fruit or vegetables in any form. A **dietary sheet** has been provided in addition to the advice below. It is important that you read this thoroughly.
- You may eat eggs, cheese, fish, white meat, pasta or rice.
- If you have **type 2 diabetes and take insulin**, and if this diet reflects a significant decrease in your usual food intake you may need to reduce your insulin doses. You can discuss this with your Diabetes Specialist Nurse or General Practitioner for personalised advice.
- If you have **type 1 diabetes** and are carbohydrate counting you can continue this. Otherwise you may need to reduce your dose of short-acting insulin. This can be discussed with your Diabetes Specialist Nurse or General Practitioner for personalized advice.

The day before

Drink plenty of clear fluids today.

Before breakfast: Take the first dose of laxative provided (where applicable) and mix the powder with 150 mL (approximately half a glass) of cold water in a glass. The solution will become hot. If it solidifies just add a little more water. Stir very well and allow to cool before drinking. Drink the entire mixture including any sediment.

You may eat breakfast after this dose, sticking to the dietary restrictions previously outlined.

At midday: You may have a light lunch without vegetables.

From now on, you may only take **clear fluids** and **no solid food** at all except boiled sweets and peppermints.

At 14.30pm: Take the second laxative dose (where applicable). Start to drink one half pint (250mL) of clear fluids every hour on the hour during the daytime. The more fluid that you drink, the better the preparation works.

- Take additional sugary clear fluids (drinks such as Lucozade or sugar-containing squash, cordial or juice) to maintain your blood glucose levels if necessary.

Advice may change if you have heart failure - please let us know if this is the case on 01225 821425.

How do I adjust my medications the day before my procedure?

- Continue to take Metformin, pioglitazone and DPP-IV inhibitors ('Gliptins'- see list at start) as usual.
- Do not take any other ORAL diabetes medications (see list at start)
- Continue to take GLP-1 injections as usual.
- Check your blood glucose level before all insulin injections.
- Long-acting and intermediate-acting insulin doses do not need adjustment.
- If you have type 2 diabetes, halve the usual dose of short or mixed insulin, where applicable.
- If you have type 1 diabetes and are carbohydrate counting you can continue this. Otherwise, halve the usual dose of short-acting or mixed insulin.

On the day of the procedure

Continue liquid diet with clear fluids such as black tea or coffee, sugar-free squash, clear soups or water up to 2 hours before your appointment time.

When you travel to and from the hospital carry some glucose tablets or a sugary drink. You may wish to bring a dressing gown or coat with you.

What to do if you have a 'hypo'

If you have any symptoms of a low blood sugar such as sweating, dizziness, blurred vision or shaking please test your blood sugar if you are able to do so.

If your sugar is less than 4mmol/L (or if you are not able to check your blood sugar), take 4 glucose tablets or 100mL of the sugary drink (half a standard sized can of non-diet cola) or 4-5 jelly babies. Please tell staff at the hospital that you have done this because it is possible that your endoscopy may have to be rearranged.



Remember to bring with you to hospital:

- Glucose tablets or a sugary drink.
- Blood glucose testing equipment (if you usually monitor your blood glucose)
- The tablets or injections you usually take for your diabetes, and a prescription if available.

The following tables will guide you on how to adjust your diabetes medications on the day of your procedure. If you are able to check your blood sugar you should monitor this closely e.g. on waking, on arrival at the hospital and after the procedure.

What to do with your oral diabetes medications

Tablets	If your procedure is in the morning	If your procedure is in the afternoon
Metformin	Omit your morning dose. If only taken at this time, take morning dose with lunch.	Omit morning and lunchtime dose. Instead take one dose with evening meal.
Sulphonylureas -see list at start e.g. Gliclazide	Omit your morning dose. If only taken at this time, take morning dose with lunch.	Omit morning dose.
Pioglitazone	Delay until after the procedure.	Delay until after the procedure.
Acarbose	Omit your morning dose.	Omit your morning and lunchtime dose. Instead take one dose with evening meal.
Meglitinide, repaglinide or nateglinide	Omit your morning dose.	Omit your morning and lunchtime dose. Instead take one dose with evening meal.
DPP-IV inhibitors -see list at start e.g. sitagliptin, linagliptin	Omit your morning dose. If only taken at this time, take morning dose with lunch.	Omit morning dose. If only taken at this time, delay until after the procedure.
SGLT2 inhibitors -see list at start e.g. dapagliflozin	Delay until after the procedure.	Delay until after the procedure.



What to do with your injected medications

Injections: See list at start	If your procedure is in the morning	If procedure is in the afternoon
Once daily insulin ONLY (type 2 diabetes) e.g. long and intermediate acting- see list	Continue your usual dose *see below.	Halve your normal dose if taken in the morning.
Twice daily LONG ACTING insulin e.g. lantus, levemir- see list	Halve your usual morning dose. Resume normal regime with next scheduled dose.	Halve your usual morning dose. Resume normal regime with next scheduled dose.
Twice daily MIXED insulin (eg Novomix 30, Humulin M3, Humalog 25/50,etc)	Halve your usual morning dose. Resume normal regime with next meal.	Halve your usual morning dose. Resume normal regime with next meal.
Twice daily – separate injections of short acting e.g. actrapid, novorapid, Humulin S etc. AND intermediate acting insulin e.g. Insulatard, Humulin I etc.	Calculate the total dose of both morning insulins and give half as intermediate acting only in the morning. Leave the evening dose unchanged.	Calculate the total dose of both morning insulins and give half as intermediate acting only in the morning. Leave the evening dose unchanged.

Injections	If your procedure is in the morning	If your procedure is in the afternoon
Three times daily MIXED insulin e.g. Novomix 30, Humulin M3, Humalog 25/50 etc	Halve your usual morning dose. If you miss lunch do not take your lunchtime dose. Resume your normal regime with your next meal.	Halve your usual morning dose. Omit your lunchtime dose. Resume your normal regime with your next meal.
Basal bolus regimens: once or twice daily long acting insulin (basal) plus short acting insulin (bolus) at meal times (see list at start)	Long acting/ Basal: continue your normal dose *see below. Short acting /Bolus: Omit your morning dose. Resume normal regime with your next meal.	Basal: continue your normal dose *see below. Bolus: Omit your morning and lunchtime doses. Resume normal regime with your next meal.
Exenatide (Byetta)	Omit your morning dose.	Omit morning dose.
Lyraglutide (Victosa), Lixisenatide (Lyxumia)	Delay until after the procedure.	Delay until after the procedure.
Bydureon// Tresiba/ Ozempic	Delay by one day if due.	Delay by one day if due.

* If you normally graze through the day or normally eat snacks without taking extra insulin you should reduce this insulin dose by one third (e.g. if on 30 units normally then reduce to 20 units).

What if I have an insulin pump?

- Maintain your usual basal rate and only give boluses if you need to correct for a significantly elevated reading.
- If you have any concerns about hypoglycaemia you can use a temporary basal rate that is 80% of your usual rate.
- You can contact your Diabetes Specialist Nurse, Practice Nurse or General Practitioner for personalised advice.



After the procedure

How do I manage my diabetes after the procedure?

- After your procedure you can drink when you feel able to.
- Once you are eating and drinking you should resume taking your diabetes medications as normal.
- Your blood glucose levels may be higher than usual for a day or so.
- When you get home, if you feel nauseated or vomit and are unable to eat, please refer to the 'What should I do if I am unwell?' section below.
- If you do not improve quickly and usually attend the hospital for diabetes care, please telephone the Diabetes Team on 01225 824198 during office hours Monday to Friday. If they do not answer leave a message and contact your General Practice.
- Outside of office hours please contact your GP or out of hours service.
- If you usually see your GP about your diabetes care please phone your General Practice.

What should I do if I am unwell?

- NEVER stop taking your insulin or tablets – illness usually increases your body's need for insulin.
- TEST your blood glucose level every 2 hours, day and night.
- TEST your urine for ketones every time you go to the toilet or your blood ketones every 2 hours if you have type 1 diabetes and have the appropriate equipment.
- DRINK at least 100 mL water/ sugar free fluid every hour – you must drink at least 2.5 litres (approx. 5 pints) per day during illness.
- REST and avoid strenuous exercise as this may increase your blood glucose level during illness.
- EAT as normally as you can. If you cannot eat or if you have a smaller appetite than normal, replace solid food during illness with one of the following:
 - 400 mL milk
 - 200 mL carton fruit juice
 - 150-200 mL non-diet fizzy drink
 - 1 scoop ice cream



When should you call the Diabetes Specialist Nurses or your GP?

- Continuous diarrhoea and vomiting, and/or high fever.
- Unable to keep down food for 4 hours or more.
- High blood glucose (above 15 mmol/L) with symptoms of illness - you may need more insulin.
- Ketones in type 1 diabetes at ++2 or +++3 in your urine or above 1.5 mmol/L blood ketones - you may need more insulin. In this case, contact the person who normally looks after your diabetes IMMEDIATELY.
- Outside normal working hours consult the local out of hours service or go to your local hospital Emergency Department.

Who should I call if I have questions about my procedure?

You are welcome to discuss your questions with our Endoscopy Nurses during normal working hours, phone 01225 821425 and ask to speak to a registered nurse.

Who should I call if I have diabetes related questions?

If you usually attend the hospital for diabetes care and have diabetes related questions, please telephone your Diabetes Specialist Nurse or the Diabetes Team at the RUH on 01225 824198 during office hours Monday to Friday.

If you usually attend the General Practitioner for diabetes care and have diabetes related questions, please telephone your General Practitioner.

Who should I call if I have urgent questions outside normal working hours or illness related questions?

Consult the local out of hours GP service for urgent queries or illness or go to your local hospital Emergency Department.



Am I prepared for my endoscopic procedure?

- Write down your medication plan in the table below. If sedation is used during the procedure it may affect your thinking, so it will be helpful to write your plan in advance.
- If you are unclear you can contact your Diabetes Specialist Nurse, Practice Nurse, the Endoscopy Department or General Practitioner for personalized advice.
- If you are not sure we know about your diabetes, heart failure or kidney failure phone 01225 821425 or 01225 821788

Date	Medication regime
2 days before: / /	
1 day before: / /	
Day of procedure: / /	
Day after procedure: / /	

This guidance is provided to assist with your preparation for your endoscopic procedures. If you feel unclear about how to proceed with your medication after reading this information, please contact your Diabetes Specialist Nurse or General Practitioner for personalized advice.

If you have any queries about the test please contact the **Endoscopy Department** on **01225 821425**.

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Please contact the Patient Advice and Liaison Service (PALS) if you require this leaflet in a different format, or would like to feedback your experience of the hospital. Email ruh-tr.pals@nhs.net or telephone 01225 825656 / 826319.