

Guidance for Diabetic Persons having an OGD or Bronchoscopy

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.

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.

The day before

How do I prepare the day before a gastroscopy (OGD) or bronchoscopy?

No change in diet or medications is required the day before your procedure.

On the day of the procedure

If your procedure is in the morning:

If you are having an OGD: **do not** eat any food after midnight.

If you are having a bronchoscopy: **do not** eat any food from 3 hours before your procedure (e.g. up until 4am).

Drink clear fluids such as black tea or coffee, sugar-free squash or water up to 2 hours before your appointment time e.g. up until 5am if the procedure is in the morning.

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.

If your procedure is in the afternoon:

Eat breakfast before 7am and take no food after this time.

Drink clear fluids such as black tea or coffee, sugar free squash or water up to 4 hours prior to the procedure.

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 it 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.	Take your morning dose with breakfast. Omit lunchtime dose (if taken).
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.	Take as normal.
Acarbose	Omit your morning dose.	Take your morning dose with breakfast. Omit lunchtime dose (if taken).
Meglitinide, repaglinide or nateglinide	Omit your morning dose.	Take your morning dose with breakfast. Omit lunchtime dose (if taken).
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.
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.	Continue your usual dose *see below.
Twice daily LONG ACTING insulin (type 2 diabetes) 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: Continue your normal morning insulin. Omit lunchtime dose and resume 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
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.