Many people with type 2 diabetes need medications to help manage their blood glucose levels.

When you are first diagnosed with type 2 diabetes, you may not need medication. However, as diabetes progresses, most people will eventually need medications to help lower their blood glucose levels. This may include tablets or injectable medications, or in some cases, insulin.

If you need medication to manage your diabetes, talk to your doctor about what type of diabetes medication best suits your needs. Remember that the type of medication you need – and the dose – is likely to change over time.

**Diabetes medications**

There are several different types of medications that can be used to help manage type 2 diabetes. They are grouped together based on how they work in your body. Each type of medication works in a different way to help keep your blood glucose levels in your target range.

While most of these medications are available as a tablet, some are taken as an injection, and many can be taken in combination. Your doctor will prescribe the medications that are most suitable for you.

**Starting a new diabetes medication**

If you are starting a new medication, it’s important to talk to your doctor about:

- what time to take it
- what dose to take
- when to take it – before, with or after food
- how to take it – can tablets be crushed, split or swallowed whole
- what to do if you forget to take it
- the common side effects
- what to do on sick days
- how to store the medication
- whether the medication can cause low blood glucose levels (hypoglycaemia or a hypo)
- whether it’s suitable to take with other medications you have been prescribed or supplements/over the counter medicines you are using.
### Types of diabetes medications

<table>
<thead>
<tr>
<th>Class name</th>
<th>How it works</th>
<th>Common side effects</th>
<th>Additional information</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Biguanides</strong></td>
<td>» Blocks glucose release from the liver&lt;br&gt;» Slows glucose release from the gut&lt;br&gt;» Improves insulin sensitivity</td>
<td>» Nausea&lt;br&gt;» Diarrhoea&lt;br&gt;» Metallic taste in the mouth&lt;br&gt;» Cramps and bloating&lt;br&gt;» Indigestion</td>
<td>Take with or directly after food&lt;br&gt;Avoid if you have severe kidney or liver damage</td>
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<tr>
<td><strong>Sulphonylureas</strong></td>
<td>» Stimulates the pancreas to release more insulin</td>
<td>» Hypoglycaemia&lt;br&gt;» Weight gain&lt;br&gt;» Rash</td>
<td>Take just before a meal&lt;br&gt;Avoid skipping meals</td>
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<tr>
<td><strong>DPP-4 inhibitors</strong></td>
<td>» Blocks the action of DPP-4 enzyme&lt;br&gt;» Stimulates the release of insulin&lt;br&gt;» Blocks the release of glucose from the liver</td>
<td>» Respiratory tract infections&lt;br&gt;» Common cold symptoms (sore throat, runny nose, cough)&lt;br&gt;» Headaches&lt;br&gt;» Musculoskeletal pain</td>
<td>Take with or without food</td>
</tr>
<tr>
<td><strong>SGLT2 inhibitors</strong></td>
<td>» Blocks glucose from being re-absorbed by the kidneys</td>
<td>» Urinary tract infections&lt;br&gt;» Yeast infections&lt;br&gt;» Dehydration&lt;br&gt;» Constipation&lt;br&gt;» Increased urination</td>
<td>Can be taken with or without food&lt;br&gt;Have with a full glass of water</td>
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<tr>
<td><strong>Thiazolidinediones</strong></td>
<td>» Improves the sensitivity of cells to insulin&lt;br&gt;» Decreases glucose release from the liver</td>
<td>» Weight gain&lt;br&gt;» Fluid accumulation</td>
<td>Avoid if you have severe liver or heart damage</td>
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<tr>
<td><strong>Alpha glucosidase inhibitors</strong></td>
<td>» Slows down the digestion of carbohydrate from food</td>
<td>» Flatulence (wind)&lt;br&gt;» Bloating&lt;br&gt;» Diarrhoea</td>
<td>Take just before food&lt;br&gt;If you are taking this with a medication that can cause hypos, they must be treated with glucose only, eg glucose tablets/gel</td>
</tr>
<tr>
<td><strong>GLP-1 agonists</strong></td>
<td>» Blocks glucose release from the liver&lt;br&gt;» Slows glucose release from the gut&lt;br&gt;» Stimulates the release of insulin&lt;br&gt;» Feeling of fullness</td>
<td>» Nausea&lt;br&gt;» Vomiting&lt;br&gt;» Diarrhoea&lt;br&gt;» Constipation&lt;br&gt;» Reflux&lt;br&gt;» Injection site reaction</td>
<td>This medication is injected&lt;br&gt;Tell your doctor if you experience rapid weight loss</td>
</tr>
<tr>
<td><strong>Insulin</strong></td>
<td>» Allows glucose to move from the bloodstream to the body cells</td>
<td>» Hypoglycaemia&lt;br&gt;» Injection site reaction&lt;br&gt;» Weight gain</td>
<td>This medication is injected&lt;br&gt;There are different classes of insulin and these vary according to how long they take to start working and how long they last&lt;br&gt;Avoid skipping meals</td>
</tr>
</tbody>
</table>
Once you have started on a new diabetes medication, your doctor will discuss how soon to make your next appointment for a review. They may wish to see you more often after starting a new medication.

Your doctor will want to check your blood glucose levels, ask about any side effects or problems you might be having, and decide whether your dose needs to be changed. Your doctor may also discuss adding or starting another class of diabetes medication.

The approach to managing diabetes, and the use of medications, is different for everyone, so let your diabetes health professionals help you work out what treatment is best for you.

Your pharmacist can also assist you with information and advice about the medication you have been prescribed.

Even if you take medication to help manage your diabetes, healthy eating and regular physical activity are still essential to help manage your diabetes.

**Complementary or alternative medicines**

Taking complementary, alternative or over-the-counter medicines may affect the diabetes medications you are taking. Always talk to your GP, pharmacist or diabetes educator first before starting any of these. They should NEVER REPLACE your prescribed medication.

**Tips for taking diabetes medication**

- Take the correct dose at the right time, as prescribed by your doctor. Taking your medication incorrectly can cause your blood glucose levels to rise or fall at the wrong time. It can also increase some side effects from that medication.
- Read the information leaflet that comes in the medication box, or ask your pharmacist for information.
- Don’t split or crush your tablets without checking with your local pharmacist first, as it may change the effectiveness of your medication.
- If you drink alcohol, make sure your doctor knows, as it may affect your medication. Some medications can also cause alcohol-related hypos - ask your doctor if you are at risk.
- If you need help remembering to take your medication, ask your pharmacist about using a dosette box or Webster-pak®.

Your medications should be reviewed every year as part of your diabetes annual cycle of care. This is a series of health checks your GP can do to help you manage your diabetes.