U-500 Insulin

Basic information

What is U-500 Insulin?
U-500 insulin is a stronger form of insulin. It is used by people who need high doses of insulin.

How does U-500 insulin compare to U-100 insulin?
U-500 insulin:
- Is 5 times stronger than U-100 insulin (R-insulin).
- Lasts at least 8 to 10 hours, which is longer than U-100 insulin lasts. Since it lasts longer, most people will give 2 to 4 injections a day. U-500 insulin can act as a person’s background insulin and mealtime insulin.
- Starts working within 30 minutes to 1 hour.
- Has a peak effect (is strongest) between 2 to 4 hours after injecting it. This is similar to U-100 insulin.

Why would someone need to be on U-500 insulin?
U-500 insulin can provide better blood glucose control for someone who needs large amounts of insulin. Most patients who use U-500 insulin need more than 200 units a day of regular U-100 insulin before they switch to U-500. Because it is stronger, you inject less fluid when you use U-500 insulin. This can improve how your body uses insulin.

If my provider prescribes U-500 insulin for me, what do I need to know?
To avoid confusion, your provider might have you use a different kind of syringe. With this new syringe, your dose might be given in milliliters instead of units.

But, if you use a regular insulin syringe for your U-500 insulin:
- Keep in mind that syringes for U-500 and U-100 insulin look the same, and this can be confusing.
Questions?

Your questions are important. Call your doctor or health care provider if you have questions or concerns. UWMC clinic staff are also available to help.

Diabetes Care Center: 206-598-4882

Review the difference between U-500 and U-100 insulin with your provider. Make sure you understand how many units of U-500 you should take. It will be much less than your U-100 dose was.

Be aware that taking the wrong dose may be life-threatening because U-500 is 5 times stronger than U-100. Remember, you will be injecting less fluid with U-500 insulin.

Like all insulins, U-500 can cause weight gain. Diet and exercise can help decrease your insulin dose, and a lower dose can lead to less weight gain.

You are still at risk of hypoglycemia if you use U-500. Treat hypoglycemia the way you usually would, and then recheck your blood glucose after 15 minutes.

This table compares U-100 and U-500 doses in milliliters (mL) and units. Do not use this conversion table if you are using U-500 in an insulin pump. Only use U-500 insulin in an insulin pump if your health care provider has recommended this and you are working closely with your provider to manage your diabetes.

<table>
<thead>
<tr>
<th>Volume (mL)</th>
<th>U-500 (units)</th>
<th>U-100 (units)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.01</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>0.02</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>0.05</td>
<td>5</td>
<td>25</td>
</tr>
<tr>
<td>0.10</td>
<td>10</td>
<td>50</td>
</tr>
<tr>
<td>0.20</td>
<td>20</td>
<td>100</td>
</tr>
<tr>
<td>0.50</td>
<td>50</td>
<td>250</td>
</tr>
</tbody>
</table>

How should I store U-500 insulin?

- Store unopened vials of U-500 in the refrigerator.
- Keep the vial you are using at room temperature.
- U-500 insulin expires 28 days after opening. After 28 days, throw it away and start using a new vial, even if there is still insulin in the vial you have been using.