

# Acarbose

## *Why should I use this medication?*

- You should take acarbose if you are having trouble keeping your blood sugar down to a normal level. This is especially true if you can't take other medications like metformin, glyburide, repaglinide, nateglinide, rosiglitazone or pioglitazone or if these other drugs are not doing a good enough job at controlling your sugars or if you are having high blood sugars 2 hours after you eat.
- Taking this medication will help to decrease your blood sugars.
- Taking acarbose and/or other medications is only one part of a 3 point plan in the battle against diabetes. You should also make positive lifestyle changes and manage stress.

## *How will it make my life better?*

- At first you may experience some side effects. These could last for a month or two and then gradually lessen, although some people will continue to experience stomach problems. In the long run, acarbose should make your life better by allowing for greater flexibility with dosing and because it does not result in low blood sugar when taken by itself. Since this medication works best at the time you are eating, it gives you more flexibility on when you take the dose. If you find yourself occasionally skipping a meal, this is a good medication for you. If you skip a meal, you skip the medication. If you add a meal, you add the medication.

## *How do I know it's working?*

It takes time for this medication to start working. Don't get discouraged if you don't see any changes within the first week or two. It will likely take up to 1 to 2 months before you experience its full effect.

**You** can tell if the drug is working by:

1. Checking your blood sugar on a regular basis. If the drug is working, you should start to see the numbers come down. This medication can lower your blood sugar by up to 2 units (mmol/l), but typically reductions are closer to 0.5-1 unit. Your own results will depend on many things so it's not possible to say for sure how well this drug will work for you.

**Example:** If your blood sugar after a meal is typically around 13 mmol/l, you may see a decrease to 11-12 mmol/l.

2. You start to feel better. Once your blood sugars come down, you'll feel less tired and not so thirsty all the time. You'll also stop going to the bathroom so often.

**Your doctor or healthcare provider** can tell if the drug is working by:

1. Reviewing your day to day blood sugars with you (it is very helpful if you can jot down your numbers on a regular basis and bring them with you to the clinic).
2. Ordering a blood test called your Hemoglobin A1C. Your A1C is the best "big picture" test for your blood sugar control. It looks at your blood sugar control over the last 2 to 3 months. Acarbose can usually decrease this number by 0.5-1% which is lower than some other medications.

## **Dr. Mike's Key Points**

- If you are like most of my patients, you don't really like taking medications. Taking pills is easier when you can see an immediate benefit. For example, if you take a pill for arthritis, you feel better within an hour. Taking acarbose lowers your overall blood sugar levels (and therefore your A1C) but you may not feel all that different. But make no mistake; lowering your A1C is critical for your long term quality of life.

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### *Is there any reason why I shouldn't take this drug?*

You should not use this drug if you are allergic to it. This drug should not typically be used if you have type-1 diabetes. Before taking this medication, tell your doctor specifically if you have or have ever had:

- Crohn's disease or ulcerative colitis
- a bowel obstruction
- problems with your kidneys or liver
- a large hernia

### *What about possible side effects?*

This medication is generally not well tolerated because of its side effects. The most common side effects to acarbose are related to the stomach and occur in almost 50% of the people who take this medication. These include:

- diarrhea
- gas and feeling bloated
- nausea
- cramps or other stomach pains

These side effects may be less with lower doses and may decrease with time. The best way to start this medication is to take it once a day with a slow increase to the dose recommended by your doctor. Discuss this with your doctor or pharmacist.

Other side effects that occur less often are:

- Low blood sugar: this medication may cause low blood sugar only when taken with other diabetes medications (e.g glyburide, insulin). Continue to check your blood sugar and tell your doctor if you are experiencing symptoms of low blood sugar (sweating, shakiness, fast heart beat, nausea, dizziness) .
- Liver problems (rare): hepatitis (inflammation of the liver) and jaundice (yellowing of skin and eyes) have been reported. Call your doctor if you experience unexplained nausea, vomiting, stomach pain, fatigue, loss of appetite, dark urine, yellowing of the skin and/or eyes. Your doctor will likely perform periodic lab tests in the first year of using this medication to check your liver function.

This is not a complete list of side effects. If you are concerned about these or other unusual symptoms while taking this medication, ask your doctor and/or pharmacist for more information and advice.

### **What if I am taking other drugs?**

Always provide your doctor with a list of all other drugs you are taking (including over-the-counter medications and herbal/natural products) as they may interact with and may change the safety or effectiveness of either drug. Tell your doctor specifically if you are taking any of these drugs as he/she may need to make changes or check you more closely:

- Prednisone, dexamethasone, cortisone, high dose hydrochlorothiazide (greater than 25mg), albuterol, pseudoephedrine, olanzapine, risperidone, niacin. (These drugs may increase your blood sugar and decrease the effectiveness of acarbose.
- Other diabetes medications (glyburide and other sulfonylureas, metformin, insulin, rosiglitazone, pioglitazone, repaglinide, nateglinide)
- Chloestyramine : may increase the effect of acarbose
- Digoxin: acarbose may change the amount of digoxin in your blood
- Digestive enzymes (e.g. pancrease): may decrease the effect of acarbose
- Fenugreek, licorice, bitter melon, eucalyptus, ginseng, St. John's Wort

This is not a complete list of drug interactions. Ask your doctor or pharmacist to review your list of medications.

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### Dr. Christine's Pharmacist Tips:

- It takes a lot longer for this medication to start working compared to other medications
- To decrease the chances of having problems with stomach pain, gas and diarrhea, it is best to start with a lower dose and increase it gradually. Your starting dose should be once a day with an increase every 1-2 weeks until you reach the dose recommended by the doctor.
- If the stomach side effects are intolerable, your dose may be too high. If the problem is mild and you can tolerate it, it will likely go away with time. If you can't stand it, then talk to your doctor or pharmacist. He/she will likely suggest that you cut your dose in half and increase it to the desired dose even more slowly.
- This medication works best for lowering high blood sugars that occur after a meal. The best time to take this medication is with the first bite of each meal. If you forget to take it at the beginning of the meal you can still take it while you are eating or immediately afterwards. Otherwise, skip the dose and wait until your next meal. Do not double the dose.
- If you skip a meal for whatever reason, then skip your medication as well.
- This medication on its own does not cause low blood sugar. However, if you are prescribed another medication or acarbose is added to another medication, you may start to have some episodes of low blood sugar.
- If you do develop symptoms of low blood sugar (shaking hands, fast heartbeat, sweating, confusion, dizziness, feeling hungry, feeling tired and drowsy), taking regular table sugar, candies or juice WILL NOT WORK. Instead, you must take the following:
  - 3 glucose tablets, 1 tablespoon of honey, ¾ cup milk
  - Re-check your blood sugar again in 15 minutes, if it is still under 4mmol/l then repeat the above.
  - Once the blood sugar is normalized (but not too high), you should have a small snack or a meal if it is near the normal time for this. This will help prevent another low blood sugar episode.
- This medication may not work as well if you are sick or you may have a greater chance for low blood sugar if you have diarrhea, vomiting or can't eat because of illness. It is best to check your blood sugars more often when you are sick. Call your doctor or pharmacist if you have any questions.
- The maximum amount of this medication to be taken is usually 100mg three times a day. If you have not seen an improvement in your blood sugars after at most 2 months of being at your current dose, then you should go see your doctor. He/she may need to make changes.

### Dr. Mike's Key Points

- Think of taking medications to lower your blood sugar like an investment: it requires some effort and commitment but it will provide large returns in the long run.