

# Frequently Asked Questions

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## - Diabecinn cinnamon extract (ZN112) capsules

### 1. What is Diabecinn™ and what condition is it used for?

Diabecinn™ is a cinnamon-based food supplement (special food). It is indicated for patients who know that they have Type 2 Diabetes (not insulin-dependant). Check your type with your doctor.

### 2. What is Diabetes?

Diabetes is a disorder of metabolism—the way our bodies use digested food for growth and energy. Most of the food we eat is broken down into glucose, in the form of sugar in the blood. Glucose is the main source of fuel for the body. After digestion, glucose passes into the bloodstream, where it is used by cells for growth and energy. For glucose to get into cells, insulin must be present. Insulin is a hormone produced by the pancreas, a large gland behind the stomach. When we eat, the pancreas automatically produces the right amount of insulin to move glucose from blood into our cells. In people with diabetes, however, the pancreas either produces too little or no insulin, or the cells do not respond appropriately to the insulin that is produced. Therefore, glucose builds up in the blood (hyperglycaemia); the excess overflows into the urine and passes out of the body. Thus, the body loses its main source of fuel even though the blood contains large amounts of glucose.

### 3. What is Type 2 diabetes?

Type 2 diabetes is the most common form of diabetes. About 90 to 95 percent of people with diabetes have type 2. This form of diabetes is associated with older age, obesity, family history of diabetes, previous history of gestational diabetes, physical inactivity, and ethnicity. When type 2 diabetes is diagnosed, the pancreas is usually producing enough insulin, but for unknown reasons, the body cannot use the insulin effectively, a condition called insulin resistance. After several years, insulin production decreases. The result is that glucose builds up in the blood and the body cannot make efficient use of its main source of fuel.

### 4. What is the difference between Diabecinn™ and other cinnamon products?

Diabecinn™ is a special water-based extract (ZN112) of cinnamon. Other commercially available cinnamon products in South Africa contain whole ground cinnamon.

### 5. What is the benefit of the water-based extract in Diabecinn™?

Ordinary whole ground cinnamon contains oils that can irritate the lining of the mouth, stomach and intestine. These oils may also enhance the effects of blood-thinning agents. During water-based extraction, most of these oils are left behind and therefore the chance of experiencing unwanted side effects is very low. In

addition, the extract is a concentrated form of whole ground cinnamon which makes dosing easier.

**6. Can Pre-diabetics take Diabecinn™?**

In pre-diabetes, blood glucose levels are higher than normal but not high enough to be characterized as diabetes. However, many people with pre-diabetes develop Type 2 diabetes within 10 years. Pre-diabetes also increases the risk of heart disease and stroke.

With modest weight loss and moderate physical activity, people with pre-diabetes can delay or prevent Type 2 diabetes. Diabecinn™ added to a proper diet and exercise programme may further help delay or prevent the progression to diabetes and reduce the many health risks associated with high blood sugar levels.

**7. Can Diabecinn™ be used with other anti-diabetic medications?**

Yes. A scientific study done on cinnamon used patients who were on oral anti-diabetic medication. However, you must check your blood sugar levels regularly.

**8. Can I lower the use of my daily medications after a while when I take Diabecinn™?**

After continued use of Diabecinn™, your blood sugar levels may drop to a point where your health practitioner may be able to lower the dose of your anti-diabetic medication(s). You must not adjust your medication on your own.

**9. What is hypoglycaemia and can Diabecinn™ cause this?**

Hypoglycemia means “blood sugar levels that are below normal”. Hypoglycaemia results in symptoms such as hunger, nervousness, perspiration, shakiness, dizziness, light-headedness, sleepiness, confusion, difficulty speaking, and feeling anxious or weak. It is unlikely that Diabecinn™ will cause your blood sugar levels to drop below normal, unless you are taking other medicines, herbs or supplements that increase the production of insulin. You must always have your blood sugar levels monitored regularly in order to avoid this situation.

**10. Can Type 1 diabetics use Diabecinn™ as well?**

Currently Diabecinn™ is for patients with Type 2 Diabetes only. This is because the current studies were performed only on this group of patients. If you have Type 1 Diabetes consult your medical practitioner before trying Diabecinn™. Watch out for hypoglycaemia.

**11. Can I use Diabecinn™ if I am using blood-thinning agents or if I'm going for surgery?**

Because Diabecinn™ is a water-based extract, it is unlikely to cause more bleeding. However, as a precaution, it is advised to discontinue Diabecinn™ one month prior to surgery, and restart 2-3 weeks later.

**12. Can I use Diabecinn™ if I am pregnant or breast-feeding?**

No, do not use Diabecinn™ when you are pregnant or breastfeeding.

**13. Can I use Diabecinn™ if I have high blood pressure?**

There is no reason to think that Diabecinn™ may affect your blood pressure. If you have high blood pressure it is always advised to have it checked regularly when adding anything new to your diet or medicines.

**14. How does Diabecinn™ work?**

Diabecinn™ contains special polymers that have been shown to **improve glucose uptake, promote glucose metabolism and stimulate the action of insulin**. This causes insulin already present in the Type 2 Diabetic to become more effective. This means that cells are able to absorb glucose from the blood more efficiently and high triglyceride levels often associated with diabetes, are reduced. The polymers also show **potent antioxidant activity** which improves glucose utilization and helps prevent fatty build-ups in blood vessels.

**15. What studies have been done to support the use of cinnamon in Type 2 diabetics?**

A study was conducted by the University of Peshawar, Pakistan on 60 individuals (30 men and 30 women) with Type 2 Diabetes. All patients were over 40 years of age. They were all on anti-diabetic medication, not on insulin and consumed their normal diets throughout the study. The addition of 1,3 or 6 grams of cinnamon to the diet for 40 days caused blood sugar levels to decrease by 18 to 29%, triglycerides by 23-30% LDL cholesterol by 7-27% and total cholesterol by 12-26%. There were no problems with taking the cinnamon supplement. Another study done at the University of Hannover Germany, on a water based extract of Cinnamomum cassia showed a significant reduction of 10% in fasting blood sugar levels.

**16. How much cinnamon is in Diabecinn™ and does this correspond with the study?**

The first study showed that a decrease of the blood sugar level is significant when taking 1, 3 or 6 grams of cinnamon a day. It was shown that 1gram per day produced results that were just as good as 6 grams per day. Each Diabecinn™ capsule contains 112 mg of a water-based extract of cinnamon which is equivalent to about 1,232 grams of whole ground cinnamon. Just one capsule of Diabecinn™ may produce significant results. The second study also used 112mg of a water-based cinnamon extract per capsule.

**17. How do I take Diabecinn™?**

Adults with Type 2 Diabetes: 1 capsule daily with the main meal. If after 20-40 days a sufficiently beneficial result is not achieved, the dose can safely be increased to up to three capsules a day. Split the daily dose by taking one capsule with each meal. To be used by children under 12 years only after appropriate medical consultation.

**18. How is the product presented?**

DIABECINN™ capsules are sealed in blister packs of 15 capsules, packed in cartons of 30's and 60's standard capsules(i.e. 1 box of Diabecinn™ contains either 30 or 60 capsules) and 30's vegetarian capsules (Halaal certified/S.A.N.H.A.). Inserted in each carton, there is an explicit package insert and the product carries a 3-year shelf-life.

**19. Why can't I just use normal household cinnamon?**

Cinnamon used in the kitchen has a low concentration of active substance (polymers). You would need to take a lot of household cinnamon in order to achieve the same result as taking 1 Diabecinn™ capsule. Also Diabecinn™ is a water-based extract of cinnamon, which is safer to take than regular cinnamon over a long term basis.