# Osfena Tablet اوسفینا ٹیبلیٹ

**Osfena** is a combination of natural / nutraceutical substances useful for Pre Diabetics & Diabetics.

**Composition:**
Each tablet contains:

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| Vitamin E (USP) | 30 mg |
| Biotin (USP) | 250 mcg |
| Calcium (as Carbonate) (USP) | 25 mg |
| Magnesium oxide (USP) | 250 mg |
| Zinc (as Gluconate) (USP) | 15 mg |
| Lipoic acid (USP) | 30 mg |
| L-arginine (USP) | 10 mg |
| L-taurine (USP) | 50 mg |
| Ginkgo biloba extract (USP) | 40 mg |
| L-carnitine (USP) | 125 mg |
| L-methylfolate (USP) | 400 mcg |
| Coenzyme Q10 (USP) | 5 mg |
| Panax ginseng extract (USP) | 50 mg |
| Chromium (as Chromium picolinate) (USP) | 500 mcg |
| Selenium (as Sodium selenite) (BP) | 70 mcg |
| Manganese (as Manganese sulphate) (USP) | 2 mg |
| (Manufacturer's specification) | |

**INGREDIENTS DETAILS**

***Vitamin E:***
People with diabetes tend to have low levels of antioxidants, which has led some researchers to believe that this might explain why they are at increased risk for conditions such as heart disease. Vitamin E supplements and other antioxidants may help reduce the risk of heart disease and other complications in people with diabetes. Research shows that antioxidants may help control blood sugar levels and lower cholesterol levels in people with type 2 diabetes while protecting against the complications of eye damage (retinopathy) and kidney damage (nephropathy) in those with type 1 diabetes.

***Biotin:***
Diabetes causes a biotin deficiency. In addition to potentially raising biotin levels, supplementation may actually help to lower blood glucose concentrations. In fact, while this effect has been shown in patients with and without diabetes, the blood glucose levels decrease more in those with diabetes.
Preliminary evidence also indicates that taking biotin orally or intramuscularly may help to decrease the numbness and tingling associated with peripheral neuropathy in diabetic patients.

***Calcium:***
Calcium is an essential component of intracellular processes that occur within insulin responsive tissues like skeletal muscle and adipose tissue. It is the mineral that could help reduce diabetes risk by up to 33 percent, and the most abundant mineral in the body, which is beneficial for many processes in the body from bone health to nerve transmission. Calcium does more than just build bones. Calcium is also necessary for keeping teeth healthy, for transmitting nerve signals, for hormone secretion, for muscle function, furthermore calcium is part of many of the body's metabolic systems and functions.

***Magnesium:***
Public health concerns regarding the epidemics of obesity and type 2 diabetes mellitus and the prominent role of magnesium in glucose metabolism have led scientists to investigate the relationship between magnesium intake and type 2 diabetes mellitus. Insulin resistance, which is characterized by alterations in both insulin secretion by the pancreas and insulin action on target tissues, has been linked to magnesium deficiency.

***Zinc:***
Laboratory studies have shown that zinc acts like insulin when administered to insulin-sensitive tissue and that it seems to stimulate insulin action. It binds to insulin receptors, activates insulin signaling pathways, and more, all of which result in glucose uptake by cells and clearance of glucose from the blood. Zinc is also necessary for the correct processing, storage, and secretion of insulin, and it can protect against β-cell loss, a hallmark of diabetes. Because zinc is so closely tied to insulin functioning, zinc deficiency is associated with poor β-cell function and higher incidences of insulin resistance.

***Lipoic acid:***
Lipoic acid is a substance that should be considered for dietary supplementation for anyone concerned with anti-oxidant defence for general health, and those wanting to maintain proper glucose metabolism. Lipoic acid has been found to have effectiveness in handling some of the physical consequences of diabetes and metabolic syndrome.
Interestingly, Lipoic acid has been found to stimulate glucose uptake by muscle similarly to insulin indicating that it may have a distinctive role in managing insulin resistance and hyperinsulinaemia.

***L-arginine:***
L-arginine administration stimulates insulin secretion and enhances insulin-mediated glucose disposal.
A long-term study of L-arginine supplementation in patients with type 2 diabetes resulted in improved peripheral and hepatic insulin sensitivity. No changes in body weight, glycated hemoglobin, serum potassium, diastolic blood pressure, or heart rate were demonstrated. Systolic blood pressure decreased in the L-arginine group.

***L-taurine:***
Taurine is not just another amino acid, but it is a favorable component required by our body to keep away the bad effects of diabetes. Being an antioxidant in nature, taurine is capable of protecting the body cells in various parts from free radicals, which are disastrous in nature. The patients suffering from type 2 diabetes are the main contenders for extracting benefits out of this amino acid.

***Ginkgo Biloba:***
In recent years the ginkgo biloba has become a popular subject amongst researchers and the general public. The plant has drawn attention for a number of reasons, but one of the most significant properties seems to be its ability to improve blood circulation. Due to this, diabetics have been drawn to ginkgo as a natural remedy that may be able to alleviate many of their symptoms. When diabetics develop what is known as "pancreatic exhaustion", they become unable to create enough of this crucial hormone. Ginkgo seems to help the pancreas by promoting and stimulating the production of insulin, allowing individuals to once again start producing it.

***L-carnitine:***
L-carnitine can improve insulin sensitivity in the treatment of diabetes, when taken as a dietary supplement. An additional intake of carnitine can also offer other advantages to diabetics, for instance, LDL cholesterol levels in diabetics were reduced. Furthermore, carnitine protects the cells in the body from oxidative stress. Oxidative stress is triggered by free radicals which come into being through particular metabolic processes but also through environmental pollution, smoking or UV rays. Free radicals can damage cell membranes and various surface structures in the body, such as the inner walls of the arteries. Carnitine can make free radicals harmless and thereby protect the heart, kidneys and eyes.

***L-methylefolate:***
Folate can be administered in forms that are easier for the body to absorb, and L-methylfolate is one of them. L-methylfolate improves the epidermal nerve fiber density (ENFD), it also helps in reducing frequency and intensity of the "pins and needles" feeling or of the painful sensation (or lack of sensation) brought about by simple touch and contact.

***Coenzyme Q10 :***
CoQ10 supplements may improve heart health and blood sugar and help manage high blood pressure in people with diabetes. Preliminary studies found that CoQ10 improves blood sugar control. Coenzyme Q10 is a substance that helps convert food into energy. CoQ10 is found in almost every cell in the body, and it is a powerful antioxidant. Antioxidants fight damaging particles in the body known as free

radicals, which damage cell membranes, tamper with DNA, and even cause cell death. Scientists believe free radicals contribute to the aging process, as well as a number of health problems.

***Panax Ginseng:***
The hypoglycemic activity of ginseng may be due to the enhancement of aerobic glycolysis through stimulation of beta-adrenoceptor and increase of various rate-limiting enzyme activities related to tricarboxylic acid cycle. Initial studies have shown that ginseng increases insulin production and reduces cell death in pancreatic beta cells. In addition, ginseng can decrease blood-glucose in type 2 diabetes patients.

***Chromium:***
Chromium is required for normal carbohydrate metabolism and as a critical cofactor for insulin action and is a component of the glucose tolerance factor (GTF), which plays a role in glucose homeostasis. The safe and adequate daily intake of chromium was considered to be in the range 50–200mcg. Normal concentration of chromium in the serum of adult is 0.05–0.5µg/L (1–10 mole/L). Chromium concentrations were significantly reduced in blood of type 2 diabetic patients as compared to control subjects of both genders but urinary levels of these elements were found to be higher in the diabetic patients than in the age-matched healthy controls.

***Selenium:***
Selenium, a trace element, is involved in the complex system of defense against oxidative stress through selenium-dependent glutathione peroxidases and other selenoproteins. The normal selenium concentration in the serum is less than 8µg/dL. Due to its antioxidant properties, selenium might be preventing the development of diabetes. In addition, selenate, an inorganic form of selenium, mimics insulin activity in experimental models. Selenium is known to act as an antioxidant and peroxynitrite scavenger when incorporated into selenoproteins. This antioxidant property of selenium prevents the development of complications in diabetic patients.

***Manganese:***
Manganese plays an important role in a number of physiologic processes as a constituent of some enzymes such as pyruvate carboxylase and arginase and an activator of different enzymes such as phosphoenolpyruvate carboxykinase (PEPCK) and glutamine synthetase. These manganese activated enzymes play important roles in the metabolism of carbohydrates, aminoacids, and cholesterol. Manganese helps in glucose metabolism and it is required for normal synthesis and secretion of insulin. The normal range of manganese in the adult blood is from 0.59 to 0.75 µg/L. The level of manganese is lower in type 2 diabetic subjects as compared to control subjects. In an another study, the mean manganese was significantly low in blood and scalp-hair samples of diabetic patients as compared to control and both genders.

**INDICATIONS:**
Nutritional support for Pre-Diabetics & Diabetics
To take care symptoms associated with diabetes due to deficiency of any or all of the nutritional substances provided in **Osfena**.

**CONTRAINDICATION:**
Hypersensitivity to any of the ingredient(s) present in the product.

**DOSAGE:**
The recommended daily dose is one **Osfena** tablet or as directed by the healthcare provider.

**PRECAUTIONS:**
The content is not intended to be a substitute for professional medical advice, diagnosis, or treatment. Always seek medical advice for any questions regarding a medical condition or changes in the treatment.

**INSTRUCTIONS:**
Keep in a cool and dry place. Protect from light, heat and moisture. Keep out of the reach of children.

**HOW SUPPLIED:**
**Osfena** Tablets available in alu alu pack of 3×10's

**Manufacturer Enlistment No. 0078**
**Product Enlistment No. 0078820475**

Manufactured by:
*Nutrimed Laboratories*
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Karachi, Pakistan.

Marketed by:
CENRJY Pharmaceuticals
Karachi