Chromium Picolinate

Supports Healthy Blood Sugar Levels

- Contains the natural form of chromium used by the body
- Helps regulate glucose and lipoprotein balance
- Supports heart health
- Provides a superior form and effective dose of chromium picolinate

Details
Chromium is an essential trace mineral needed by the body for a number of vital biological functions, the most well-known being its role in blood sugar management. This is based on its ability to unlock the “cell door” to the hormone insulin, allowing it to enter the cells. Multiple double-blind, placebo-controlled studies have been carried out, mainly on type II diabetics, showing marked improvements in blood glucose levels. However even those who do not suffer from diabetes have found that chromium can help with weight loss and reducing food cravings, due to its ability to help keep blood sugar levels stable.

Since insulin resistance and high blood sugar appear to be risk factors for heart disease and metabolic syndrome, higher chromium intake can also help reduce the risk of developing these conditions.

AOR’s Chromium Picolinate is a specific form of chromium with picolinic acid, and research has suggested that this is the natural form of chromium in all living things. It therefore stands to reason that chromium picolinate is the optimal form of chromium supplementation as it is the form that is actually utilized by the body.
Discussion
Chromium Picolinate is the natural form of chromium in living things, and it supports healthy glucose metabolism.

Product Variation

<table>
<thead>
<tr>
<th>Product Code</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>AOR04090</td>
<td>90 VEGI-CAPS</td>
</tr>
</tbody>
</table>

Supplements Facts

<table>
<thead>
<tr>
<th>Serving Size: 1 Capsule</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chromium (III) (picolinate)</td>
<td>600 mcg</td>
</tr>
</tbody>
</table>

Non-medical ingredients:
microcrystalline cellulose, silicon dioxide, sodium stearyl fumarate. Capsule: hypromellose.

Guarantees

AOR™ guarantees that all ingredients have been declared on the label. Contains no wheat, gluten, corn, nuts, peanuts, sesame seeds, sulphites, mustard, soy, dairy, eggs, fish, shellfish or any animal byproduct.

Adult Dosage

Take 1 capsule daily with/without food, or as directed by a qualified health care practitioner.

Cautions

Consult a health care practitioner prior to use if you have a kidney disorder or for use beyond 6 months. Do not use if you are pregnant or breastfeeding.

Source

Pharmaceutical synthesis

Main Application

Blood sugar balance

Improves insulin sensitivity

Disclaimer

The information and product descriptions appearing on this website are for information purposes only, and are not intended to provide or replace medical advice to individuals from a qualified health care professional. Consult with your physician if you have any health concerns, and before initiating any new diet, exercise, supplement, or other lifestyle changes.

Research
Background

An essential trace mineral, chromium is needed by the body in only small amounts. Nonetheless, it plays a significant role in nutrition. While vital for a number of different bodily processes, chromium is most valuable in controlling glucose levels. Due to this fact, chromium has found significant favor among those looking to improve the stability of their blood sugar levels. It has even been suggested that chromium may be beneficial in reducing the risk of heart disease. A superior form of chromium picolinate is a bidendate chelate with picolinic acid. This is because research has suggested that chromium picolinate is the natural form of chromium in living things. If chromium picolinate is the form your body uses, it only makes sense for you to take that form.

Glucose Regulator

Part of the reason that chromium is labeled an essential mineral is the vital role it plays in the regulation of blood sugar levels. Chromium works like a key to unlock the hormone insulin, allowing it to travel throughout the body controlling blood sugar, building proteins, and performing all of its other duties. Insufficient quantities of chromium in your body -a condition that affects most North Americans- may cause some of the scourges of modern living: high blood sugar and high cholesterol. Chromium picolinate may help regulate dyslipidemia and inflammation associated with blood sugar instability.

Insulin itself plays a vital role in the process of glucose regulation. Without insulin, glucose cannot exit the bloodstream and enter the body’s cells. Chromium helps the process along by acting as a cofactor to insulin, “unlocking the door” to the cell member, thus allowing glucose to cross the cell membrane and enter the cell. How chromium does this isn’t necessarily known, but we do know that previous models are inaccurate. It used to be thought that chromium was first converted into a chemical called glucose tolerance factor (GTF). However, it was later discovered that GTF was inadvertently created during the process of chemical analysis -and that there is actually no such thing as GTF. Effectively, some foods that were previously thought to be superior sources of chromium due to their supposed quantities of GTF are not necessarily better foods for obtaining chromium.

Cardiovascular Health

Insulin resistance and elevated blood sugar levels appear to be risk factors for heart disease. Some scientists have found that higher chromium intake lowered the risk of heart attack, and these studies coincide with some authorities’ characterization of “metabolic syndrome X.” Syndrome X is the combination of impaired blood sugar control, high cholesterol, weight gain, and high blood pressure, all of which contribute heavily to heart disease. While the existence of syndrome X is itself controversial, chromium picolinate has been indicated as a partial remedy for at least the first condition. However this first condition, namely poor blood sugar control, is arguably the single most important factor of syndrome X due to its intrinsic effects on the other factors of cholesterol, weight gain, and blood pressure.

Safety

Even though chromium is an essential mineral, we still don’t know exactly how large an amount we can take before toxicity becomes an issue. This is of particular concern because chromium, despite being needed by our bodies, is a heavy metal, and rare cases associated with excessive intake have been reported at doses as low as 600 mcg. However, these problems are quite rare, and can possibly
be attributed to other health factors, such as liver or kidney disease, which may have predisposed the affected individuals towards such a reaction. One last concern with chromium supplementation lies in preliminary, in vitro studies that found chromium picolinate to cause genetic damage to cells. While nothing conclusive has been proven against chromium regarding toxicity levels, it is nonetheless important to be forewarned about its possible risks.

Chromium has only recently been classified as an essential mineral and its functions in the body are still being studied. Even so, chromium picolinate is essential for proper glucose function and has been shown to provide significant assistance to those struggling to regulate their blood sugar levels. Finally, the connotations for weight loss are also quite overt, making chromium picolinate a useful tool for aesthetic as well as medical purposes. Pursuant to this, chromium picolinate has also been examined by athletes as well, both recreational and competitive. This is due to the fact that maintaining a stable glucose level is paramount in any endurance sport, especially those requiring periodic bursts of anaerobic activity.

Research

Chromium’s Role In Promoting Healthy Blood Sugar Levels

As chromium picolinate has been shown to have a beneficial effect on glucose regulation, some studies have tested whether it can have similar benefits for those suffering from abnormal blood sugar levels, or some other sort of impaired insulin function. The results of these studies have been positive. Several small, double-blind trials have suggested that chromium picolinate supplementation may help those with health problems related to poor blood sugar control. One such trial studying overweight people at risk of developing complications related to high blood sugar found that chromium helped the body respond better to insulin. Another randomized, placebo-controlled trial found that chromium supplementation shortens QTc interval which, when prolonged, is a powerful predictor of total mortality, cardiac death, and future stroke in patients with unstable blood sugar levels. Multiple studies have been carried out on these type of patients, showing marked improvements in blood sugar levels.

Cholesterol Regulation and Insulin

Chromium picolinate may help regulate dyslipidemia and inflammation associated with high blood sugar levels. A 4-week rat study found that chromium picolinate lowered blood triglycerides and normalized LDL and VLDL cholesterol compared to unhealthy rats receiving a placebo treatment. A human study found that subjects with unstable blood sugar levels that responded to chromium supplementation were those who had higher fasting blood glucose levels and HbA1c to begin with, and that the mechanism of action may be related to better lipid metabolism in peripheral tissues. Other authors have suggested that chromium may even help to restore proper cell membrane cholesterol balance of adipocytes (fat cells), normalizing insulin-mediated transport of glucose into the cell.

Market Trends
Chromium picolinate is most commonly used for weight loss and for body conditioning. It also has several other benefits that are associated with maintaining regular blood sugar levels.

**AOR Advantage**

AOR’s formula provides an effective dose of this important nutrient to keep glucose under control. Chromium plays a significant role in nutrition and is vital for a number of different bodily processes. A superior form of chromium picolinate is a bidendate chelate with picolinic acid, the form of chromium naturally used by the body.

**References**


**Abstract**

*Effect of Short Term Treatment with Chromium on BMI, Lipids, and Fasting Glucose in Obese Subjects.*

*Diabetes. 2004 Jun; 53(Suppl 2): A596(Abs2520).*

*Talavera AG, Reza A, Cerda J.*

**Objective:** To investigate the effect of chromium picolinate supplement on body mass index (BMI),
serum total cholesterol (CT), tryglicerides (TG) and fasting plasma glucose (FPG).

**Method:** Fifty-four women and six men, all obese adults, from a rural zone, were randomly assigned to two groups. Subjects received either 1000 mcg/day of chromium picolinate supplementation (AG) or a placebo (PG) in triple masked fashion for 8 weeks. Anthropometrics measurements: BMI, waist/hip ratio (WHR), body fat percentage (BFP) assessed for skin folds (SF) measurement and bioelectrical impedance (BI). Biochemical parameters: serum total cholesterol, triglycerides and fasting plasma glucose, measured at baseline and after 8 weeks.[table1]

**Conclusion:** Eight weeks of 1000 mcg/day of chromium as a chromium picolinate supplement significantly affected BMI and TG in moderately obese Mexican rural women with abdominal adipose tissue distribution. An unexpected beneficial effect on BI and SF was observed in both groups.