

# GlucoQuench™ Professional Guide

**GlucoQuench™** is a Hormone Specific™ Formulations developed by Dr Joseph J Collins, ND, RN to support healthy glucose function through several multifaceted mechanisms that reflect the true complexity of blood glucose metabolism.

Insulin resistance has long been recognized as a precursor for Diabetes Mellitus Type 2, which used to be called “Adult Onset Diabetes”. Although obesity is associated with increased risk of developing insulin resistance and Type 2 Diabetes, other factors, such as unhealthy cholesterol or triglycerides levels, may also increase risk even in individuals with normal or low body weight. Recent review of published findings also indicate that abnormal glycogen function plays a role in Type 2 Diabetes.

This unique and complex combination of herbs and extracts from herbs in GlucoQuench™ can support normal glucose metabolism through a vast number of mechanisms. These multiple mechanisms may be classified into several primary categories, as presented in the following list:



## The Herbs in GlucoQuench™

### Support Glucose Function

- Decrease HbgA1c
- Decrease fasting blood glucose
- Decrease Post-Prandial Glucose
- Inhibits Glucose Absorption
- Decrease Gluconeogenesis
- Increase Glycogen Synthesis

### Support Insulin Function

- Improved Insulin Secretion
- Insulin Receptor Agonists
- Insulin Mimetic
- Increase Insulin Utilization
- Beta Cell Protection
- Beta Cell Regeneration
- Anti-Diabetic

### Support Lipid Health

- Decrease Serum Triglycerides
- Decrease Total Cholesterol
- Decrease Fatty Liver/ NASH

### Support Healthy Weight

- Anti-Obesity
- Decrease Ghrelin
- Increase Leptin Level or Function
- Decrease Cortisol Levels

### Support Vascular Health

(macrovascular & microvascular)

- Antihypertensive
- Decrease Inflammation
- Decrease Oxidative Stress
- Aldose Reductase Inhibition
- Decrease Diabetic Nephropathy
- Decrease Diabetic Retinopathy
- Decrease Diabetic Neuropathy

## The Glucose Insulin System (GIS)

The **glucose-insulin system (GIS)** is responsible for maintaining appropriate blood glucose levels. During stress, the GIS may allow higher glucose levels. If the stress persists, then the constantly inappropriate glucose elevations will have adverse effects throughout the body. Increased glucose levels may cause excessive output of insulin, which can cause hypoglycemic (low blood sugar) problems in the short term, but lead to insulin resistance (prediabetes) if it continues. Abnormal glucose levels make the body more susceptible to stress. For example, the stress of a single hypoglycemic event makes a person more likely to have more frequent and more intense hypoglycemic events. This is a well-documented example of regulatory system dysfunction getting worse as time goes on.

### How is GlucoQuench™ used?

GlucoQuench™ may be used as the **primary Hormone Specific™ Formulation** by healthcare professionals to restore normal glucose levels supporting proper function of the Glucose Insulin System (GIS). GlucoQuench™ is used to decrease excessive glucose levels and maintain health insulin function.

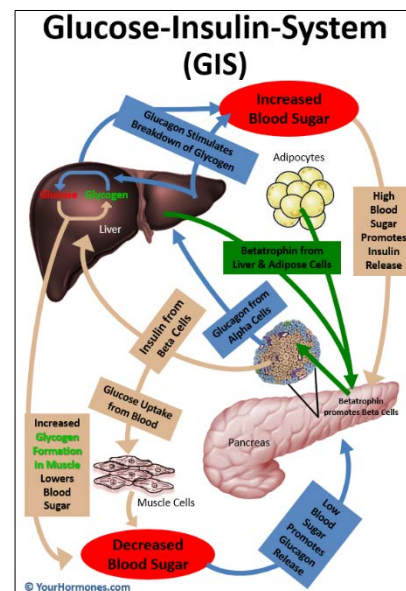
GlucoQuench™ supports Glucose Insulin System (GIS) health in individuals that may present with:

- Insulin Resistance & Cardiometabolic Disease as a primary health concern
- Insulin Resistance & Cardiometabolic Disorder as a secondary comorbidity.

GlucoQuench™ may be used as an **adjuvant** with other *Hormone Specific™ Formulations* to improve the function of the Glucose-Insulin-System in situations where additional hormone imbalances also exist.

For example, GlucoQuench™ may be used as an adjuvant with the following Hormone Specific™ Formulations:

- With **AdrenoMend™** in men or women who have insulin resistance or elevated blood glucose due to impaired adrenal function or other stress related disorders.



- With **ThyroMend™** in men or women who have insulin resistance or elevated blood glucose due to impaired thyroid function or thyroid hormone resistance.
- With **TestoGain™** in men that have insulin resistance or elevated blood glucose due to low testosterone levels.
- With **EstroMend™** in women that have insulin resistance or elevated blood glucose due to low estrogen levels.
- With **ProgestoMend™** in women with insulin resistance as a comorbidity to PCOS.
- With **EstroQuench™** in men that have insulin resistance or elevated blood glucose due to high estrogen levels.
- With **TestoQuench™ for Women** in women that have insulin resistance or elevated blood glucose due to high testosterone levels.
- With **TestoQuench™ for Men** in men to decrease risk of developing insulin resistance or elevated blood glucose due to suppression of testosterone hyperfunction by TestoQuench™ for Men.
- With **Endocrine Complete™** to support optimal glucose function and metabolism in individuals who have a family risk of insulin resistance.

## GlucoQuench™ Herbs

**GlucoQuench™** is a Hormone Specific™ Formulations that can normalize the function of the glucose insulin system (GIS) due to the synergistic properties of the herbs within the formulation. No single herb can completely support complete production and every function of insulin, and no single herb can by itself completely normalize every mechanism involved in maintaining healthy blood glucose levels. None-the less, some of the actions for each of the herbs is presented below.



**Gymnema sylvestre** leaf extract, standardized to 25% gymnemic acids. The gymnemic acid from *Gymnema sylvestre*, has anti-obesity and antidiabetic properties, decreases body weight and inhibits glucose absorption. Several components extracted from *Gymnema* prevent the accumulation of triglycerides in muscle and liver and decrease fatty acid accumulation in the circulation. There are several mechanisms involved in the ability of *Gymnema sylvestre* to lower blood sugar and decrease the development of diabetes. The phytochemicals extracted from *Gymnema sylvestre* may inhibiting glucose uptake in the gastrointestinal tract by inhibition of sodium-dependent glucose transporter 1 (SGLT1 inhibition). Some of the compounds in *Gymnema sylvestre* have been identified as insulin receptor agonists (IR agonists). *Gymnema sylvestre* appears to enhance endogenous insulin, possibly by regeneration - revitalisation of the residual beta cells in insulin-dependent diabetes mellitus. Insulin requirements came down together with fasting blood glucose and glycosylated haemoglobin (HbA1c) and glycosylated plasma protein levels. The beta cells of the pancreas may be regenerated/repared in Type 2 diabetic patients, supported by the appearance of raised insulin levels in the serum of patients. Supplementation with *Gymnema sylvestre* reduced excessive eating, fatigue, blood glucose (fasting and post-prandial), and glycated hemoglobin and there was a favourable shift in lipid profiles and in other clinical-biochemical tests. These findings suggest a beneficial effect of *Gymnema sylvestre* in the support of blood sugar health. *Gymnema sylvestre* can restore beta cells in the islets of Langerhans. In addition, glycosylation of proteins, a major metabolic abnormality in diabetes mellitus, and the resultant nephropathy, retinopathy microangiopathy and macroangiopathy may be brought under control by the use of *Gymnema sylvestre*. In addition to antihyperglycemic affects, *Gymnema sylvestre*, neuroprotective properties of *Gymnema sylvestre* may be associated with the inhibition of the high glucose mediated excessive activation of inflammatory molecules and oxidative stress mediators. *Gymnema sylvestre* has also been shown to decrease blood pressure in a few studies.



**Rehmannia glutinosa** (7:1 root extract) can decrease insulin resistance by increasing glucose utilization and lowering glucose and cortisol levels. Mice treated with *Rehmannia glutinosa* showed reduced blood glucose levels after stimulating the plasma GLP-1 levels. Research supports the weight-controlling effects of *Rehmannia glutinosa* treatments, showing reducing levels of (the “hunger hormone” and the induction of peptide YY (PYY) secretion. Additional research showed that *Rehmannia glutinosa* use for 5 weeks improved impaired glucose tolerance, increased liver and muscle glycogen. decreased the gluconeogenesis, and decreased plasma-free fatty acid’s level, plasma triglyceride, total cholesterol levels and corticosterone level, while increasing plasma leptin (the “satiety hormone”). Catalpol, a bioactive component from the root of *Rehmannia glutinosa*, has been shown to have antidiabetic effects in type 2 diabetic animal models. This may be due to the ability of catalpol to ameliorate high fat diet induced insulin resistance by decreasing adipose tissue inflammation and suppressing the JNK and NF-κB pathways. Catalpol may also have beneficial effects against diabetic nephropathy by limiting the expression of TGF-β1, CTGF and Ang II and reducing the extracellular matrix accumulation.



**Berberine HCL** from **Berberis aristata** root extract. Berberine is a naturally occurring alkaloid and a primary constituent of several plants including Indian barberry, goldenseal, and phellodendron. Patients with type 2 diabetes and dyslipidemia showed a decrease in fasting and post-load plasma glucose, HbA1c, triglyceride, total cholesterol and low-density lipoprotein-cholesterol when administered berberine for 3 months. Berberine has well documented antidiabetic properties, with the ability to decrease insulin resistance by acting as an insulin receptor agonist, and due to anti-

inflammatory properties. It can also inhibit alpha-glucosidase and decrease glucose transport through the intestinal epithelium. Berberine also demonstrated the ability to normalize lipid profiles, with TC, and LDL-C all decreasing, and HDL-C increasing in human trials.

In women with PCOS, Berberine has a more pronounced therapeutic effect and achieved more live births with fewer side effects than metformin. In animal trials, berberine improved nonalcoholic fatty liver disease (NAFLD) by regulating lipid metabolism by the inhibition of gluconeogenesis and hepatic lipogenesis. The researchers concluded that berberine might be a good choice for patients with NAFLD and glucose metabolic disorders. Berberine can decrease the risk of diabetic nephropathy, and can be used as a therapy against diabetic retinopathy. Berberine may also have a protective effect against diabetes development through its ability to support beta cell regeneration. Its action as an aldose reductase inhibitor allows berberine to effectively prevent and delay diabetic complication, such as diabetic nephropathy, vasculopathy, retinopathy and peripheral neuropathy, and so on. Research has also shown that berberine might control both hyperglycemia and blood pressure in diabetes. This is important because hyperglycemia and hypertension are the two leading risk factors for vascular disease in diabetic patients. Berberine may also be an effective therapeutic strategy for the treatment of obesity. The cardiovascular properties of berberine include positive inotropic, negative chronotropic, antiarrhythmic, and vasodilator properties.



***Eleutherococcus senticosus*** root, standardized to 0.8% eleutherosides, *Eleutherococcus senticosus* extracts increased the insulin-provoked glucose uptake, improved serum lipid profiles and significantly decreased blood glucose and serum insulin levels. Supplementation effectively attenuated Homeostatic Model Assessment of Insulin Resistance (HOMA-IR), and improved hepatic glucose metabolism by upregulating glycolysis and downregulating gluconeogenesis.

It was found to reduce body weight and insulin resistance in high fat diet-induced hyperglycemic and hyperlipidemic mice. Gene expression studies confirmed reductions in glucose 6-phosphatase and lipogenic enzymes in the liver. These results demonstrate that the extract is an effective treatment for insulin resistance and hepatic steatosis in type 2 diabetic mice by decreasing hepatic lipid synthesis. An increase in insulin sensitivity following the administration of this herb was further identified. Mechanisms of action may include the ability of *Eleutherococcus senticosus* to significantly inhibit  $\alpha$ -glucosidase activity in the small intestine mucosa, which decreases postprandial hyperglycemia and may help prevent type II diabetes mellitus. Active constituents in this herb enhance glucose utilization as well as glycogen synthesis, which can lower plasma glucose levels. *Eleutherococcus senticosus* may also raise the release of ACh from nerve terminals, which in turn to stimulate muscarinic M3 receptors in pancreatic cells and augment the insulin release to result in plasma glucose lowering action. It also has the ability to enhance the secretion of beta-endorphin from adrenal medulla to stimulate peripheral micro-opioid receptors resulting in a decrease of plasma glucose in diabetic rats lacking insulin. Animal studies show that *Eleutherococcus senticosus* extract improved hepatic glucose metabolism by upregulating glycolysis and downregulating gluconeogenesis. *Eleutherococcus* can decrease stress response rise in cortisol. It may also provide a protective effect against the development of diabetic nephropathy. *Eleutherococcus senticosus* has antihypertensive properties due to various mechanisms of action. *Eleutherococcus senticosus* also has many studies demonstration anti-inflammatory and antioxidant properties.



***Cinnamomum cassia*** bark extract. Cinnamon extract is an insulin sensitizer, protects mesangial cells, decreases inflammatory markers, and lowers glucose, lipids, and blood pressure in patients with type 2 diabetes. *Cinnamomum cassia* has an anti-diabetic which may be due to various mechanisms. GlucoQuench™ contains cinnamon type-A polymers isolated from water soluble extracts of cinnamon. This extract has been shown to be effective in reducing fasting blood sugar, and improving body composition in men and women with the metabolic syndrome, suggesting that this naturally-occurring spice can reduce risk factors associated with diabetes and cardiovascular diseases. In a

recent study the active ingredient caused a significant decrease in fasting blood sugar when compared to the placebo group. The participants also showed statistically lower body fat, enhanced lean body mass, lower systolic blood pressure and saw improvements in various antioxidant measures. Cinnamon extract significantly reduced hemoglobin A(1c) and fasting blood glucose levels, and blood triglyceride levels in patients. It has blood pressure lowering properties that have been shown to lower systolic blood pressure. Patients given cinnamon showed significant decreases in fasting glucose, triglycerides and cholesterol. One study indicated that cinnamon may be a strong potentiator of insulin. Another study showed the extract to be an effective mimetic of insulin, that works synergistically with insulin (receptor agonist). In addition to potentiating the action of insulin action and being beneficial in the control of glucose intolerance and diabetes, the polyphenolic polymers found in cinnamon may also function as antioxidants. Cinnamon polyphenols have been shown to protect in repair beta cells in one study. Cinnamon extract may also help decrease development of diabetic neuropathy. The water-soluble extract of *Cinnamomum cassia* can also inhibit development of diabetic nephropathy by preventing the over secretion of IL-6, collagen IV and fibronectin caused by high -glucose.





***Lagerstroemia speciosa*** (banaba leaf extract), standardized to 18% corosolic acid.

*Lagerstroemia speciosa* (banaba), extracts have been used for many years in traditional medicine. The hypoglycemic effects of banaba have been attributed to both corosolic acid as well as ellagitannins. *Lagerstroemia speciosa* standardized to corosolic acid for two weeks caused a significant reduction in the blood glucose levels in people with Type II diabetics. *Lagerstroemia speciosa* has insulin-like actions by a mechanism different than the mechanism of insulin and may be considered an insulin mimetic. Several studies report that *Lagerstroemia speciosa* can be useful for the prevention and treatment of obesity. In oral glucose tolerance test, humans given corosolic acid showed lower glucose levels. The beneficial effects of banaba and corosolic acid with respect to various aspects of glucose and lipid metabolism appear to involve multiple mechanisms, including enhanced cellular uptake of glucose, impaired hydrolysis of sucrose and starches, decreased gluconeogenesis and the regulation of lipid metabolism. These effects may be mediated by PPAR, MAP K, NF- $\kappa$ B and other signal transduction factors. *Lagerstroemia speciosa*, and the active constituent corosolic acid, have been shown to decrease insulin resistance. Another study found hemoglobin A1C was found to be suppressed. *Lagerstroemia speciosa* has also been shown to decrease development of non-alcoholic steatohepatitis (NASH), a liver disease associated with metabolic syndrome. One study suggests that *Lagerstroemia speciosa* may protect beta cells due to antioxidant actions. *Lagerstroemia speciosa* also has aldose reductase inhibition properties.



***Panax ginseng*** root extract, standardized to 3% ginsenosides. In patients with type-2 diabetes or impaired glucose tolerance Ginseng supplementation improved fasting glucose, postprandial insulin, and Homeostatic Model Assessment of Insulin Resistance (HOMA-IR). *Panax ginseng* has the ability to reduce blood glucose levels and protect pancreatic beta-cells through antioxidant and by inhibiting death of beta cells caused by high glucose and cytokines. The immunomodulatory effects of *Panax ginseng* may even decrease the incidence of type 1 (autoimmune) diabetes. *Panax ginseng* can decrease triglycerides, cholesterol levels, and has antiobesity properties. *Panax ginseng* has

additional favourable effect on patients with metabolic syndrome including decreasing blood pressure cortisol levels and causing a reduction of HgbA1c. *Panax ginseng* has anti-diabetic properties which may be due to various mechanisms. *Panax* can also decrease the risk of diabetic retinopathy, possibly due to increasing the activities of total superoxide dismutase (SOD), MnSOD, catalase (CAT), and glutathione peroxidase (GSH-PX), as well as other mechanisms, such as aldose reductase inhibitory activity. It may also play a role in decreasing diabetic peripheral neuropathy, as well as diabetic nephropathy through various mechanisms of action.



***Withania somnifera*** (Ashwagandha) root and leaf extract, standardized to a minimum of 10% withanolide glycoside conjugates and 32% oligosaccharides. *Withania somnifera* has the ability to promote normal glucose levels and protect pancreatic beta-cells. *Withania somnifera* has documented anti-diabetic actions. In animal models, treatment with *Withania somnifera* significantly inhibited fructose-induced increases in glucose, insulin, HOMA-R, IL-6, and TNF- $\alpha$ . Additional research has shown *Withania somnifera* can reduce elevated levels of blood glucose, HbA(1)c and insulin and to significantly improve glucose tolerance test results. *Withania somnifera* has been

shown to decrease insulin resistance in a number of studies. It also has some aldose reductase activity. In addition to the significant decrease in blood glucose, *Withania somnifera* may protect pancreatic beta-cells from oxidative damage through a significant reduction in lipid peroxidase tissue levels, an increase in glutathione levels and an increase in the activities of the antioxidant enzymes GPx, GR, GST, SOD and CAT. *Withania somnifera* can also decrease triglycerides & cholesterol levels and can be effective against obesity due to various properties including nootropic, stress adaptation, adipogenesis inhibition and anti-hyperlipidemic actions, based on various studies. *Withania somnifera* has also been used to treat hypertension, the effect may be due to various mechanisms of action.



***Rhodiola rosea*** root extract, standardized to 5% rosavins and 2% salidroside. *Rhodiola rosea* has hypoglycemic activity and is protective against diabetes-induced oxidative stress and elevated blood sugar, with an ability to also increase in serum insulin levels, provide pancreatic beta-cell-protection, and increase SOD, GPx and CAT activities. Salidroside, a phenylethanoid glycoside isolated from *Rhodiola rosea*, may be beneficial in diabetic nephropathy due to its proteinuria-alleviating effects. Salidroside treatment significantly improved glucose and insulin tolerance. The euglycemic effects of salidroside may be due to repression of adipogenesis and inflammation adipose tissue and stimulation


of leptin signal transduction in hypothalamus. Published papers describe *Rhodiola rosea* and its constituents as having anti-diabetic properties. Some studies have also shown that *Rhodiola rosea* may be beneficial in the treatment of obesity and hyperlipidemia. *Rhodiola* can also significantly decrease stress response rise in cortisol. *Rhodiola rosea* can also help control high blood pressure, possibly due to ACE inhibitory activity. It has also been shown to have a beneficial effect in pulmonary artery hypertension.

## The Specific Actions GlucoQuench™ Herbs

The Specific Actions of **GlucoQuench™** herbs can be grouped into five primary functions, which each have various mechanisms. For example: specific herbs in GlucoQuench™ can support glucose function by: decreasing HbgA1c, decreasing fasting blood glucose, decreasing post-prandial glucose, inhibiting glucose absorption, decreasing gluconeogenesis and / or increasing glycogen synthesis.

As previously stated, no single herb can completely support complete production and every function of insulin, and no single herb can by itself completely normalize every mechanism involved in maintaining healthy blood glucose levels. The individualized action that have been documented for each of the herbs is presented in the following chart:

## Specific Actions of GlucoQuench™ Herbs



	IMPROVE GLUCOSE FUNCTION					IMPROVE INSULIN FUNCTION					DECREASE HYPERLIPIDEMIAS					DECREASE WEIGHT GAIN					INCREASE VASCULAR HEALTH (Macrovascular & Microvascular)						
	Decrease HbgA1c	Decrease fasting blood glucose	Decrease Post-Prandial Glucose	Inhibits Glucose Absorption	Decrease Gluconeogenesis	Support Normal Glycogen Function	Improved Insulin Secretion	Insulin Receptor Agonists	Insulin Mimetic	Increase Insulin Utilization	Beta Cell Protection	Beta Cell Regeneration	Anti-Diabetic	Decrease Serum Triglycerides	Decrease Total Cholesterol	Decrease Fatty Liver/ NASH	Anti-Obesity	Decrease Ghrelin	Increase Leptin Level or Function	Decrease Cortisol Levels	Antihypertensive	Decrease Inflammation	Decrease Oxidative Stress	Aldose Reductase Inhibition	Decrease Diabetic Nephropathy	Decrease Diabetic Retinopathy	Decrease Diabetic Neuropathy
<b>Gymnema sylvestre</b>	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X	X	X	
<b>Rehmannia glutinosa</b>	X				X	X	X		X			X	X	X	X	X	X	X	X	X	X	X	X	X			
<b>Berberine HCl (Berberis aristata)</b>	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
<b>Eleutherococcus senticosus</b>	X			X	X	X	X			X		X	X	X	X	X	X		X	X	X	X	X	X	X		
<b>Cinnamomum cassia</b>	X	X	X			X	X		X	X	X	X	X	X	X	X	X			X	X	X	X	X	X	X	
<b>Lagerstroemia speciosa</b>	X	X			X	X	X	X	X	X	X	X	X		X	X	X			X		X	X	X			
<b>Panax ginseng</b>	X	X	X	X		X	X			X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
<b>Withania somnifera</b>	X	X	X			X	X			X		X	X	X	X	X	X		X	X	X	X	X	X			
<b>Rhodiola rosea</b>	X					X	X			X		X	X	X	X	X	X	X	X	X	X	X	X	X	X		

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## Synergy of Phytotherapeutic Agents in GlucoQuench™

The effectiveness of the **GlucoQuench™** formulation is due to the synergy that exists between each herb in this *Hormone Specific™ Formulation*. Collectively, the herbs used in the **GlucoQuench™** formulation

No single plant or plant extract is able to provide complete protection against insulin resistance by itself. However, when all of the plants in **GlucoQuench™** are properly formulated, their synergy is able to support healthy blood glucose function and decrease insulin resistance.

The *synergy* of **GlucoQuench™** is because it is a *Hormone Specific™ Formulation*, designed to specifically address the symptoms associated with insulin resistance. It is beneficial for both males and females with signs of insulin resistance Glucose dominance and/or lab tests which reveal insulin resistance.



Synergy of Herbs in GlucoQuench™

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## Suggested Usage:

If a person has a blood sugar disorder, or is at risk for a blood sugar disorder, and is working with a healthcare professional, it is important that they let their healthcare professional know when they are using this formulation, or any other herbs that can affect the Glucose-Insulin-System.

Label suggested usage is to start at 2 capsules a day for 1 to 2 weeks. This allows the body to get used to the herbs. The full dosage of 4 capsules a day may be started. The full dosage of 4 per day will have a greater impact on the function of the Glucose-Insulin-System. In many cases, the healthcare professional may advise that the lower dosage of 2 capsules per day will be enough to maintain health of the glucose-Insulin-System.

## From the Label:

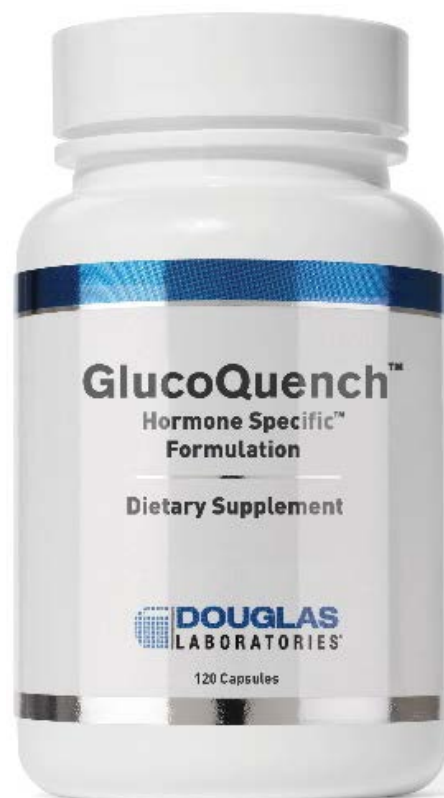
**Suggested Usage:** As a dietary supplement, adults take 2 capsules each day with food for 1 to 2 weeks or as directed by your healthcare professional. If desired, the dose may then be increased to 4 capsules each day with food for 2 to 4 months or as directed by your healthcare professional. After 2 to 4 months, dosage may be lowered back down to 2 capsules each day with food and continue on that dosage as needed or as directed by your healthcare professional.

## Supplement Facts:

The Supplements facts on the label are as follows:

<b>Supplement Facts</b>			
Serving Size	2 Capsules	4 Capsules	
Servings Per Container	60	30	
	Amount Per Serving	%DV	%DV
<i>Gymnema sylvestre</i> .....	200 mg	*	400 mg *
(leaf extract, standardized to 25% gymnemic acids)			
<i>Rehmannia glutinosa</i> extract (root).....	200 mg	*	400 mg *
Berberine HCl.....	125 mg	*	250 mg *
(from <i>Berberis aristata</i> extract, root)			
<i>Eleutherococcus senticosus</i> .....	100 mg	*	200 mg *
(root, standardized to 0.8% eleutherosides)			
Cinnamon bark extract.....	62.5 mg	*	125 mg *
( <i>Cinnamomum cassia</i> )			
<i>Lagerstroemia speciosa</i> .....	28 mg	*	56 mg *
(banaba leaf extract)			
(standardized to 18% corosolic acid)			
<b>A Phytocrine™ Proprietary Blend</b> .....	160 mg	*	320 mg *
<i>Panax ginseng</i> extract (root, standardized to 3% ginsenosides)			
<i>Withania somnifera</i> (Ashwagandha root and leaf extract, standardized to a minimum of 10% withanolide glycoside conjugates and 32% oligosaccharides), <i>Rhodiola rosea</i> root extract (standardized to 5% rosavins and 2% salidroside)			

\*Daily Value (DV) not established.



[YourHormones.com/GlucoQuench](http://YourHormones.com/GlucoQuench)



## GlucoQuench™ Dosage Guidelines

(PROTOCOL 242)

### Foundations of Hormone Health

Like every good health protocol, the first steps should address the foundations of hormone health, such as diet, foundation nutritional support, rest, recreation and relaxation, hydration & elimination. Foundational nutritional support would include a high grade multiple vitamin-mineral formulation such as Endocrine Complete™. In most situations, a daily omega-3 fish oil supplement and a multiple strain probiotic are also indicated. If a person consumes a full serving of wild salmon each week, they will consume the equivalent of 1 gram of fish oil tablet per day. If a person consumes fermented foods with live cultures on a regular basis, then they may not require a daily probiotic.

The **GlucoQuench™** Dosage Guideline may use Protocol 242, a variable dosage protocol designed exclusively for the Hormone Specific™ Formulations. Protocol 242 is used to safely and efficiently restore optimal hormone function in three phases: **Initiation** of therapy, **Restoration** of optimal function, & **Maintenance** of optimal function. **GlucoQuench™** can be taken at any time of the day with food.

### Phase One: INITIATION

Patients may start on a lower dosage during the **initiation** of the recovery process. Recovery was easier when they also addressed the foundations of health, as noted above. The **initiation** dosage for **GlucoQuench™** is **2** (two) capsules each day with food. This should be done for **1 to 2 weeks**. As with all herbal therapies, the dosage can be further customized to the individual needs of the patient. Occasionally some patients may find that they only need 1 capsule per day during the INITIATION phase, and then work up to 2 capsules per day.

### Phase Two: RESTORATION

The **restoration** phase recognizes that it often takes more energy, and more intensive therapy, to get to a higher level of function and an improved quality of life. To fully achieve restoration of specific hormone production and response to tissues throughout the body to specific hormones, it is important to maintain consistent and optimal dosages of the Hormone Specific Formulation™. Once patients experience the higher level of function and improved quality of life I advise them to stay on that dosage “until you feel good for at least two months”. If the patient has a long history of relapses, then I advise them to stay on the restoration dosage for at least four months.

The **restoration** dosage for **GlucoQuench™** is **4** (four) capsules each evening with food. This should be done for **2 to 4 months**. As with all herbal therapies, the dosage can be further customized to the individual needs of the patient. Occasionally some patients may find that they only need 2 capsules per day during the RESTORATION phase.

### Phase Three: MAINTENANCE

The **maintenance** phase recognizes that the restorative dosage that was required to increase level of function, and improve quality of life is typically not required for long term maintenance. When a patient says, “*I have been feeling great for two (or four) months! Do I still need to take the full dosage?*”, then it may be appropriate to lower the dosage to maintenance. Most patients will be able to maintain a higher level of function and improved quality of life on the lower maintenance dosage of two capsules each day. Occasionally a patient needs to stay on the restorative dosage longer than four months, or they may need to return to the restoration dosage after a relapse.

The **maintenance** dosage for **GlucoQuench™** is **2** (two) capsules each evening with food.

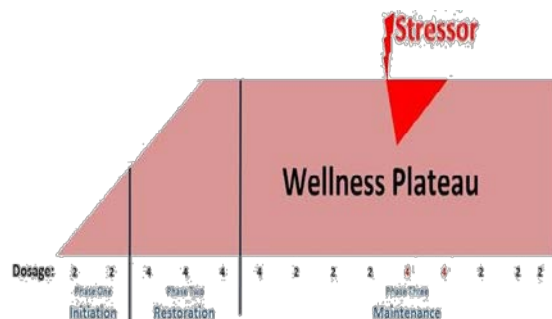
Rarely, there will be a patient that will feel better on 3 or 4 capsules long term. However, this may also be considered an extended restoration phase. When patients have difficulty staying in the maintenance phase, I reevaluate their health, such as diet, rest, recreation and relaxation, hydration, elimination, or look for stressors that may be causing them to relapse.

### The Wellness Plateau

The following graphic shows how in Phase One (INITIATION) **GlucoQuench™** is started at two capsules each evening with food. This allows a gentle increase in the level of wellness for the first two weeks.

In Phase Two (RESTORATION) the **GlucoQuench™** is taken as four capsules each evening with food. During this phase, the level of wellness will continue to improve until it reaches a higher place of wellness, indicated by the Wellness Plateau.

In Phase Three (MAINTENANCE) the **GlucoQuench™** is lowered down to two capsules each day because wellness has been attained. The dosage of two capsules each day may be increased back to four capsules if there is a relapse because of a major stressor. Once health is reacquired, the dosage may again be lowered down to two capsules each day.



### Hormone Specific Formulations

**GlucoQuench™** is a **Hormone Specific™ Formulation** formulated by Dr Joseph J Collins, RN, ND, an internationally recognized pioneer and leader in the personalized restoration of hormone health using phytotherapeutics.

Hormone Specific™ Formulations include AdrenoMend™, ThyroMend™, GlucoQuench™, TestoGain™, EstroQuench™, EstroMend™, ProgestoMend™, TestoQuench™ for Men, TestoQuench™ for Women, & Endocrine Complete™.

Dr Collins is the author of *Discover Your Menopause Type*, the first book to define the various presentations of menopause and to reveal there are different menopause types®.

\* All information provided in this Professional Guide is the opinion of the author and does not express or represent the opinion of any other party. Information and statements regarding products have not been evaluated by the Food and Drug Administration and are not intended to diagnose, treat, cure, or prevent any disease.