

# Interesting Facts You May Not Know About Flavonoids, Oxidative Stress & Insulin Resistance

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**Flavonoids have been shown to help prevent many common medical issues such as diabetes, insulin resistance, high blood pressure, and heart disease.**

([Newswire.net](http://Newswire.net) -- March 8, 2019) -- According to recent studies, obesity is linked to insulin resistance and oxidative stress. The good news is

there are supplements available to counteract these issues.

Insulin resistance means your body has failed to respond to insulin. Those with insulin resistance are either at risk for diabetes or already have the diagnosis. Oxidative stress is damage at the cellular level caused by free radicals when your body is unable to detoxify each systemic component. Prolonged oxidative stress can cause aging, but it can also result in strokes, heart disease, and cancer. So, what can you do about it? The good news is flavonoids found in orange, grapefruit, tangerine, lemon, lime and other assorted fruit peels have been shown to be highly effective in fighting and preventing both insulin resistance and oxidative stress. If you're ready to take your health back, keep reading to learn more.

## **According to a recent study, body weight can affect insulin resistance**

Published in the online magazine, [Diabetes in Control](#), a study was conducted with 205 youth participants between the ages of 10 to 20 years. There were 70 males and 135 females. Around 49 were in a normal weight range, and 89 were obese. In addition, some of these participants did have type 2 diabetes. The types of components analyzed included:

- Free fatty acids
- Body composition
- Adipose-IR
- Fasting glucose
- Insulin
- Visceral adipose tissue (VAT)
- Leptin
- Adiponectin

According to this study, "Adipose-IR was 2.2-fold higher in obese NGT, 4.3-fold higher in IGT, and 4.6-fold higher in type 2 diabetes compared with that in normal-weight peers (all  $P < 0.05$ )." It was found that the obese youths had a lower glucose tolerance. So, what is insulin resistance and why does it matter? If you are insulin resistant, does it mean you will get type 2 diabetes?

Your body makes insulin. If you have insulin resistance, it means your body has a dysfunction in terms of responding and sensitivity to insulin. As a result, your blood sugar rises and it can increase your risk for heart disease. Yet, insulin resistance is a silent issue. You can't tell you have it simply by how your body feels. Instead, you will need a series of blood tests to determine your blood sugar levels. Moreover, insulin resistance often occurs before [type 2 diabetes](#) is diagnosed. Other medical conditions that may be associated with insulin resistance include:

- Arteriosclerosis
- Fatty liver
- Acanthosis nigerians
- Reproductive issues in women

- Skin tags

The good news is diet can help to manage insulin resistance. For instance, flavonoids--such as those found in a natural [Fruit Peel Flavonoid Complex](#)--can play a significant role in reversing insulin resistance.



### Chronic fatigue and oxidative stress

A new study, [released by Metabolon](#), has found a possible link between oxidative stress and chronic fatigue syndrome. The researchers surveyed 832 metabolites, breaking down each one into eight super pathways and 83 sub pathways. Based on the findings, there was increased oxidative stress (free radicals) in those with decreased energy production. Even the membranes of muscle cells showed damage. Furthermore, in the muscle gene expression, there were altered expressions of the genes. According to the authors, increased levels of oxidative stress may be obstructing the enzymatic processes at the most basic level.

What is oxidative stress, exactly? This type of stress occurs when there is an imbalance between the antioxidants and free radicals in your body. Since free radicals can easily react with other molecules, they cause oxidation.

On the other hand, antioxidants help to stabilize free radicals by donating an electron. To be fair, the process of

oxidation in your body can be either destructive or helpful. It is also a normal process. If free radicals function as they should, then they can fight off the pathogens that lead to infections. On the other hand, if there are too few antioxidants, then free radicals can start doing damage to your DNA, fatty tissue, and protein lipids. If this damage continues to occur, it can lead to these medical issues:

- Inflammatory problems
- Diabetes
- Atherosclerosis
- Hypertension
- Heart disease
- Cancer
- Alzheimer's
- Parkinson's

And, in case you were wondering, oxidative stress also increases the [signs of aging](#).

Where do free radicals come from? Often, some of the sources can be from pollution, radiation, the ozone layer, specific pesticides, and cleaners, and cigarette smoke. But, that's not all. If your diet is composed of a lot of sugar, fats, and alcohol, you can be certain to produce an excess of free radicals which will negatively affect the balance of the antioxidants present in your body. At any rate, it's vital to turn to flavonoids.

It's critical to note that you can prevent chronic fatigue syndrome, oxidative stress, and insulin resistance with flavonoids. Flavonoid is the term used to describe a set of plant chemicals found in many fruits and vegetables. In fact, flavonoids create the bright colors of many fruits and vegetables. You can imagine orange peels are quite potent. Flavonoids offer benefits in terms of anti-inflammatory advantages and assistance with keeping your immune system healthy. Flavonoids are also believed to help prevent cancer, cardiovascular diseases, and neurodegenerative issues. Traditionally, flavonoids have been used in both Ayurvedic and Chinese medicine. They are certainly making a major impact on Western medicine. Why? Well, flavonoids are also associated with helping to regulate blood sugar and blood pressure. They also help to protect the epidermis and improve brain functioning.

### **Final thought**

As you can see, there are many preventable diseases associated with an increase in the body's production of free radicals and insulin resistance. With all the research and new studies presented on a daily basis, there isn't any reason why you should not participate in preventive measures such as taking a flavonoid supplement. Certainly, it is important to enjoy your food and your life. Yet, equally important, is your body's ability to fight insulin resistance and an imbalanced oxidative process which only serves to make you more sluggish and prone to a slew of medical issues.

Source: <http://newswire.net/newsroom/blog-post/00108325-interesting-facts-you-may-not-know-about-flavonoids-oxidative-stress-insulin-resistance.html>