

# Body Balance: Protect Your Body from Pollution with a Healthy Lifestyle

## Make Your Plate a Rainbow

Every day we choose foods to eat that we enjoy. Did you know that your food choices can impact your health? Choosing healthy foods such as fruits, vegetables, legumes, and whole grains may help prevent certain diseases. Eating a variety of colorful plant foods has the potential to protect or improve health. Research has shown that the vitamins, minerals, and phytonutrients found in plant foods may protect the body from the negative effects of pollution. The benefits may include lower blood pressure, decreased cell damage, and reduced risk of type II diabetes, heart disease, and cancer.



### What Is a Phytonutrient?

A phytonutrient comes from plant-based foods. Think of a phytonutrient like a vitamin or mineral in that it can benefit health. Research shows they are good, but scientists have not determined them to be essential

like vitamins or minerals, or determined how much needs to be consumed each day. In the future, there may be recommended levels of phytonutrients to consume, just like vitamins and minerals today. There are thousands of phytonutrients. They naturally occur in fruits, veg-

etables, legumes, whole grains, and other plant foods. Like vitamins and minerals, there are diverse types of phytonutrients, and they have various positive health effects. Certain foods are higher in some types of phytonutrients than others, just like how vitamin C is high

in oranges, and milk is high in calcium. Therefore, consuming a variety of plant foods means you will eat a variety of phytonutrients.

## Phytonutrients Protect the Body from Pollution

Consuming foods high in phytonutrients may help negate the harmful health effects of pollution. Pollution is the presence of contaminants in the environment, including the air, water, soil, and even food. Pollution tends to have negative effects on the environment and health. When people are exposed to pollution, chemicals build up in the body and damage cells, which increases the risk for cancer and other diseases. Consuming a diet high in phytonutrients may reduce the negative effects of pollution.

## Summary

Phytonutrients can have many benefits—they are heart healthy and may help prevent or slow the development of chronic diseases. Phytonutrients also help decrease the negative effects of pollution, which we can't always

avoid. The University of Kentucky is a participant in the Superfund Research Center (SRC), which conducts ongoing research on the effects of pollutants and hazardous chemicals on the environment and on the body. For more information, see Inter-Program (IP) publications 76 and 77. Good nutrition is one of our best defenses for staying healthy, even in the presence of environmental pollutants. Make your plate a rainbow to make sure you get plenty of phytonutrients in your diet.

## References

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# Where are the phytonutrients in your diet?

Examples of Phytonutrients By Food Group Color	Consumption of Phytonutrient May:
 <p><b>White</b> Contains flavanones, flavonols and polyphenols.</p>	<p>Help to lower cholesterol and maintain a healthy heart. Reduce the risk of developing certain cancers. Reduce risk of asthma. Maintain immune health by decreasing inflammation.</p>
 <p><b>Red</b> Contains anthocyanidins, carotenoids*, flavanones, flavan-3-ols, flavones, flavonols and polyphenols.</p>	<p>Promote healthy aging and memory function. Reduce the risk of heart disease and keeps your heart strong. Reduce the risk of developing certain cancer. Protect against urinary tract infections.</p>
 <p><b>Yellow/Orange</b> Contains carotenoids*, flavanones and flavonols.</p>	<p>Improve vision, including night vision. Help to lower the "bad" (LDL) cholesterol. Protect skin and mucus membranes. Maintain immune health by decreasing inflammation.</p>
 <p><b>Blue/Purple</b> Contains anthocyanidins, flavan-3-ols, flavonols, polyphenols and proanthocyanidins.</p>	<p>Help control blood sugar levels. Reduce the risk of certain cancers. Improve urinary tract health. Promote healthy aging and memory function. Reduce the risk of asthma.</p>
 <p><b>Dark Green</b> Contains carotenoids*, flavanones, flavones and flavonols.</p>	<p>Improve immune function and decrease inflammation. Reduce the risk of high blood pressure. Protect eyes from macular degeneration. Decrease your "bad" cholesterol (LDL). Promote strong bones and teeth. Help prevent birth defects.</p>
 <p><b>Light Green</b> Contains carotenoids*, flavanones, flavones and flavonols.</p>	<p>Green cruciferous vegetables, such as broccoli, Brussel sprouts, cabbage, kale and collard greens, also contain <i>sulforaphane</i>, <i>isothiocyanate</i>, and <i>indoles</i> that may protect against the development of certain types of cancer.</p>