

### What is pTeroPure Pterostilbene?

Like resveratrol, pterostilbene (tero-STILL-bean) belongs to a class of compounds called phytoalexins, which are naturally produced by plants when under attack by pathogens such as bacteria or fungi. Pterostilbene and resveratrol have very similar pharmacologic properties, however pterostilbene has several key advantages over resveratrol. Pterostilbene is one of several stilbenes found in certain berries (e.g., blueberries, cranberries, spartanberries, lingonberries, and grapes), thus, consumption of these small fruits may help improve health.

### Is pTeroPure Pterostilbene the same thing as resveratrol?

No. Pterostilbene and resveratrol are both stilbenes or stilbenoids, and they are closely related analogs, however pterostilbene and resveratrol are in fact two completely different chemical compounds.

### What does pTeroPure Pterostilbene do?

There is quite a bit of research and several publications supporting the health benefits of pTeroPure Pterostilbene. Below is brief list summarizing a few of these studies.

- Strong antioxidant
- May be a potent anti-aging compound
- Potent anti-inflammatory activity
- Prevents neuro-degeneration
- Prevents damage of oxidative stress
- Mimics calorie restriction
- Improves heart health
- Can be used to maintain healthy cholesterol levels
- Orally active and works to decrease plasma glucose levels in some animals
- Identified as an antiviral compound with broad target specificity
- Inhibits expression of certain inflammation related genes in the colon
- Potential for cancer chemo-prevention

### Why is pTeroPure Pterostilbene better than resveratrol?

Pterostilbene(methylated resveratrol) has greatly improved oral adsorption and metabolic stability. The enhanced activity of pterostilbene compared to resveratrol may, in part, be explained by structural differences. Pterostilbene with two methoxy groups and one hydroxyl group has improved lipophilicity and a higher potential for cellular uptake than resveratrol, which has three hydroxyl groups. Several published studies refer to pterostilbene as having better activity than resveratrol. For example, the result of one study indicates that pterostilbene is more effective than resveratrol as an inhibitor of DNA synthesis in the human adenocarcinoma HT-29 cell line. Additionally, Rimando et al. have shown that unlike the related stilbenes resveratrol, piceatannol, or resveratrol trimethylether, pterostilbene is a potent peroxisome proliferatoractivated receptor alpha agonist, lowering lipid levels in the blood stream at a higher rate than even ciprofibrate.

## Can pTeroPure Pterostilbene and Resveratrol work together?

Pterostilbene and resveratrol are both stilbene compounds and have very similar pharmacologic properties, but published data suggests that they act very differently. All of the bioassay and animal data, as summarized above, suggests that pterostilbene is the most potent stilbene, following a different mechanism of action than resveratrol. However, researchers have suggested that these two compounds also work synergistically, supporting the theory that a combination of pterostilbene and resveratrol in a formulation maybe more effective than using these ingredients separately.

## Is pTeroPure Pterostilbene safe?

pTeroPure Pterostilbene is made through a proprietary process. Multiple toxicological studies have been performed to prove the safety of pterostilbene.

## Is there a difference between synthetic pterostilbene and natural pterostilbene?

Synthetic pterostilbene is nature identical, that is, it is the same as found in nature, both structurally and functionally. The main difference between synthetic pterostilbene or resveratrol and naturally-derived pterostilbene or resveratrol is the purity. Naturally derived compounds are extracted from the plants and concentrated to functional levels. During the process other naturally found and less desirable compounds are also concentrated. For example, concentrated resveratrol extracts also contain concentrated anthraquinones such as emodin which act as a natural laxative and can cause discomfort in sensitive individuals. pTeroPure synthetic Resveratrol and Pterostilbene are >99% pure, meaning that there is nothing undesirable or unknown in the pTeroPure materials.

## Should pTeroPure Pterostilbene be taken year-round?

pTeroPure Pterostilbene is not a drug intended to cure disease, but an ingredient used in dietary supplements intended for healthy people. pTeroPure supports anti-aging, heart health, oxidative stress and memory; hence, it is best taken year-round for maximum benefit.

## Is pTeroPure Pterostilbene suitable for a vegetarian diet?

Yes

## What is the recommended dosage for pTeroPure Pterostilbene?

While there is no Recommended Daily Intake (RDI) for pterostilbene, the current science supporting the product suggests a daily dosage of 100 to 250 mg. A single 50 mg to 125 mg capsule taken twice daily is recommended for all adults.

## What is the significance of sirtuins?

The sirtuins are a family of seven enzymes (SIRT1-7) with the potential to protect against diseases such as hypertension and cancer. David Sinclair, Ph.D., Harvard Medical School, and Leonard Guarente, Ph.D., Massachusetts Institute of Technology, found that calorie restriction activates SIRT1, one of the key enzymes of the sirtuin family. Both pterostilbene and resveratrol improve mitochondrial function and protect against metabolic disease by activating SIRT1 and mimicking calorie restriction.