

# FREQUENTLY ASKED QUESTIONS

## SHOULD I DRINK PROARGI-9+ WITH OR WITHOUT FOOD?

For maximum benefit, ProArgi-9+ should be taken on an empty stomach. Certain amino acids may compete with L-arginine for absorption, so it is best to separate it from other dietary amino acids. Additional dietary components may also reduce the rate of the digestive and absorptive process of L-arginine. All benefits are certainly not lost by taking ProArgi-9+ with foods or beverages, but benefits may be somewhat reduced. Taking ProArgi-9+ 60 minutes before eating food should be sufficient to promote optimal absorption.

## SHOULD I MIX PROARGI-9+ WITH HOT OR COLD WATER?

ProArgi-9+ is best mixed with cold water. The potency of ProArgi-9+ cannot be guaranteed with hot liquid mixing as this may affect the potency of some components. It would also not be recommended to bake using ProArgi-9+. ProArgi-9+ should be used as a dietary supplement, not as a food.

## I HAVE MILK ALLERGIES AND I SEE THAT PROARGI-9+ CONTAINS CASEIN. CAN I STILL TAKE IT?

The vitamin K2 ingredient in ProArgi-9+ contains a small amount of milk protein (casein) to help standardize and disperse the vitamin. The product contains only a small amount of casein—one serving provides two milligrams of casein.

For a person who has a true milk allergy, milk proteins in any amount should be avoided. For a person with a milk sensitivity or digestive concerns, small amounts of milk can sometimes be consumed. Two milligrams is considered to be an extremely small amount. A person who is lactose intolerant should not have a problem consuming milk protein. This product does not contain lactose (a milk sugar).

## CAN CHILDREN TAKE PROARGI-9+?

ProArgi-9+ is typically not recommended for persons under the age of 18. This product is not recommended for children unless specifically approved by their pediatrician.

## I HAVE DIABETES. CAN I TAKE PROARGI-9+?

L-arginine can cause slight stimulation of either glucagon or insulin release. Diabetics are encouraged to monitor their blood glucose carefully when beginning ProArgi-9+ to assess how it will affect them. The product is not known or expected to manage or correct diabetes, but it may be very useful in the management of symptoms of diabetes such as cardiovascular and circulation concerns.

ProArgi-9+ Mixed Berry is sweetened with a natural sweet-

ener (inulin, fructose, pea protein, and natural flavors) and stevia leaf extract. In the natural sweetener, inulin is the primary ingredient. Inulin is a natural prebiotic fiber that is naturally sweet and provides gastrointestinal benefits. There are less than 200 milligrams of fructose per serving, which is considered to be a very small amount that most diabetics can safely incorporate into their allowable daily sugar levels.

ProArgi-9+ Citrus Berry is sweetened with xylitol and sucralose—it does not contain any fructose.

## WHAT TYPES OF SWEETENERS ARE USED IN PROARGI-9+ CITRUS BERRY?

The primary sweetener in ProArgi-9+ Citrus Berry is Xylitol, a naturally occurring carbohydrate that is found in almost all plant material, including fruits (including strawberries, raspberries, and plums), vegetables, corn husks, and mushrooms. Xylitol is also naturally produced in the body during normal metabolism of glucose in the liver. Xylitol is classified as a sugar alcohol, also called a polyol (polyols are a type of carbohydrate).

Xylitol is considered a nutritive sweetener: It is a low-digestible carbohydrate and is absorbed slowly and incompletely, having a smaller effect on blood glucose. Xylitol provides 2.4 calories per gram and has a glycemic index of 7.

ProArgi-9+ Citrus Berry is also sweetened with a small amount of sucralose. Recently, some have questioned the safety of sucralose, though many professional and scientific organizations have urged consumers not to trust these theories. Sucralose has a very good safety profile and is a superior alternative to potentially harmful artificial sweeteners. The Center for Science in the Public Interest has stated that sucralose is the only artificial sweetener that is considered safe for use without any cautions. This organization cautions against all other artificial sweeteners.

Sucralose is safe to use. While many consumers may still have concerns and choose not to use sucralose in large amounts, they should have full confidence in consuming ProArgi-9+ Citrus Berry because of the very small amount of sucralose used and because of the necessity to avoid high glycemic and bulky sweeteners.

One of the biggest obstacles in formulating a quality L-arginine product is the fact that arginine itself has a very disagreeable taste. In order to make an arginine supplement palatable, sweeteners (and generally in larger amounts) must be used. In addition, to promote overall health and to facilitate optimal absorption of L-arginine, it is generally recommended to avoid large amounts of high-glycemic sugars.

Xylitol is low-glycemic, making it an excellent sweetener option. However, it is difficult to formulate with xylitol alone. If you were to remove the few milligrams of sucralose found in ProArgi-9+ Citrus Berry, you would need to replace it with several grams of xylitol. This would make the scoop size so large it would be unmanageable. Additionally, consuming large amounts of xylitol may contribute to intestinal symptoms like diarrhea and flatulence.

## **WHAT TYPES OF SWEETENERS ARE USED IN PROARGI-9+ MIXED BERRY?**

ProArgi-9+ Mixed Berry is sweetened naturally with xylitol, a natural sweetener (inulin, fructose, pea protein, natural flavors) and stevia leaf extract. ProArgi-9+ Mixed Berry does not contain any sucralose. Inulin is a natural prebiotic fiber that is naturally sweet and provides gastrointestinal benefits. The fructose in this ingredient is natural and is obtained from sugar beets. Because fructose provides only trivial amount of sugar, we can make a sugar-free claim for this supplement. The natural flavors are citrus fruit extracts.

Fructose becomes a health concern when consumed large amounts (hundreds of grams) throughout the day from items such as processed foods and beverages. When small amounts are consumed in nutrient-dense items such as fruits, vegetables, and nutritional supplements, there should be no concern for the average person. The American Heart Association and World Health Organization recommend limiting added sugar intake to five to ten percent of total daily calories, or approximately 50 to 100 grams daily. The trivial amount of fructose in ProArgi-9+ Mixed Berry is well below the threshold where fructose consumption becomes a concern. Fructose has a low glycemic index and is an excellent sweetener when used appropriately.

## **IS THE FRUCTOSE IN PROARGI-9+ MIXED BERRY SAFE?**

Fructose is a simple sugar found naturally in many fruits and vegetables and is the preferred natural sweetener due to its low glycemic index (GI = 19). This means that fructose is absorbed very slowly in the body and does not cause a spike in insulin. Sweeteners with a low glycemic index can be used safely by diabetics since they will not cause a large spike in insulin levels.

Fructose also has a synergist effect with other sweeteners—it can be used in combination with other sweeteners such as xylitol to give a greater sweetness than each of the sweeteners individually, which allows less fructose to be used in formulation.

Consumers occasionally hear stories about alleged unhealthy properties of fructose, but these stories simply cannot be confirmed. What is known is that diets rich in fructose and other sugars can lead to obesity and poor blood sugar control, so the important message with sugars and sweeteners is to limit their consumption in the diet. ProArgi-9+ Mixed Berry is formulated with only a tiny amount of fructose to flavor the product and is not considered a rich source of fructose (it would take an excess of four canisters of ProArgi-9+

to equal the fructose content of one can of soda pop).

## **WILL PROARGI-9+ AFFECT MY BLOOD PRESSURE LEVELS?**

ProArgi-9+ may affect blood pressure levels. Through increased nitric oxide production and vasodilation, L-arginine may lower blood pressure levels.

L-arginine may interact with blood pressure medications by producing an additive effect. Combining antihypertensive medications with L-arginine may cause hypotension (undesirable low blood pressure). A person taking blood pressure medications should closely monitor blood pressure levels to ensure that levels remain within a safe range. With a physician's approval and guidance, medication dosage may need to be adjusted.

Always separate the dose of medication from natural supplements (like ProArgi-9+) by approximately two hours. Start with a low dose of natural supplement, slowly increasing dosage and watching for signs of sensitivity. When being treated for a medical condition, always consult with your health care provider regarding your use of natural supplements.

## **HOW WILL PROARGI-9+ AFFECT MY ATHLETIC PERFORMANCE?**

Taking ProArgi-9+ 30 minutes before physical exertion would be beneficial in supporting athletic performance.

## **WHERE DOES SYNERGY GET THE ARGININE AND CITRULLINE FOUND IN PROARGI-9+?**

The arginine and citrulline found in ProArgi-9+ are derived from a microbial fermentation of glucose.

## **PROARGI-9+ CONTAINS VITAMIN K—CAN I TAKE IT IF I'M ALSO TAKING BLOOD THINNERS?**

With the prescribing doctor's approvals, ProArgi-9+ could possibly be taken along with blood thinners. While L-arginine does not directly affect blood clotting to any great extent, it may have an indirect beneficial effect through its actions in supporting vascular health.

ProArgi-9+ contains vitamin K, which some sources have said needs to be limited while on the prescription blood thinner Coumadin (warfarin). Other sources maintain that vitamin K does not need to be limited, but intake needs to be consistent. Additionally, the form of vitamin K in ProArgi-9+ is K2, which does not have the same degree of potential Coumadin interactions as K1.

As a general precaution, a person on Coumadin should consult with a qualified health care provider before adding any new natural supplement to their diet. When a new supplement is added, the doctor can keep a closer eye on monthly INR/prothombin time results (a test used to measure blood clotting) to ensure that they stay within a safe range.

## **WHY DOES PROARGI-9+ CONTAINS VITAMIN K2 INSTEAD OF K1?**

Although vitamin K1 provides many of the benefits attributed to vitamin K, for optimal benefits, vitamin K2 is considered a superior choice. Vitamin K2 is a collective term for a group of vitamin K compounds called menaquinones. Studies have shown vitamin K2 to be more bioavailable and more efficacious in supporting bone mineral density. Studies on the effects of vitamin K on cardiovascular health show that vitamin K2 significantly improves arterial and cardiovascular health, while vitamin K1 has no effect at all. Vitamin K2 activates the vitamin K-dependent protein Matrix Gla-Protein (MGP), which plays an important role in preventing calcium from depositing in the arteries.

## **DOES PROARGI-9+ CONTAIN ANY ANIMAL PROTEINS?**

ProArgi-9+ contains two animal-derived ingredients: milk casein (added to vitamin k2), and vitamin D3. These ingredients could be considered vegetarian, but not vegan.

Vitamin K itself is not a source of milk. In ProArgi-9+, the vitamin K2 ingredient contains a small amount of milk protein (casein) to help standardize and disperse the vitamin. Only a small amount of casein is found in the product—one serving provides 2 milligrams of casein.

Vitamin D3 in ProArgi-9+ is obtained from the wool of healthy sheep as part of normal shearing. Lanolin (a wool grease) is extracted from the wool and converted into active vitamin D3.

Vitamin D is available primarily in two forms: vitamin D2 (ergocalciferol) and vitamin D3 (cholecalciferol). D2 is from plant or yeast sources (the plant precursor ergosterol is converted to D2 in a laboratory setting), while D3 is from an animal source (either from animal sources like fish or from lanolin from sheep wool). D3 is also the form that our bodies produce from skin exposure to sunlight. D3 is not available from a plant source and cannot be made from a synthetic source—a natural precursor, like lanolin, is required.

Vitamin D3 is considered to be the more bioactive form of vitamin D. Scientific studies show that vitamin D in the form of D3 is better absorbed and more efficient in raising blood levels of vitamin D. D3 has been studied for its benefits in controlling immunity and inflammation, in preventing cancers, and in providing cardiovascular support—the key reason D3 is included in ProArgi-9+. Vitamin D3 has been shown to reduce blood pressure levels by inhibiting renin, an enzyme released by the kidneys that acts to increase blood pressure. Vitamin D receptors (VDR) may play a role in regulating blood vessel relaxation. Vitamin D3 activates VDR, which in turn exerts a positive effect on cardiovascular function.

Dietary sources of vitamin D are generally limited to fortified foods and a few animal sources such as fish and eggs.

Vitamin D is naturally produced in the body through exposure to direct sunlight; however, not everyone will manufacture the needed amounts with sun exposure. For example, people with darker skin tone, the elderly, and those living in northern latitudes may not produce an adequate supply of the sunshine vitamin. Additionally, recent studies show that even people who live in sunny climates aren't getting enough vitamin D.

## **IS RED WINE EXTRACT THE SAME AS ALCOHOL?**

Red wine extract is from red grapes but is not the same as wine. The raw material is extracted to contain the same polyphenol (a type of antioxidant) content as found in red wine. This raw material has not gone through any type of fermentation process and does not contain any alcohol. The material could also be called "red grape polyphenol extract".

## **PROARGI-9+ SEEMS TO GIVE ME DIARRHEA AND GAS—IS THAT NORMAL?**

Two ingredients in ProArgi-9+ may affect bowel activity: L-arginine and xylitol.

L-arginine is generally free of side effects when taken orally and appropriately. However, gastrointestinal upset could occur when it is taken in large amounts. The amount of L-arginine in a serving of ProArgi-9+ (5 grams) is not expected to be associated with adverse effects in healthy individuals. According to the 2007 Physician's Desk Reference: "Oral supplementation with L-arginine at doses up to 15 grams daily are generally well tolerated. The most common adverse reactions of higher doses—from 15 to 30 grams daily—are nausea, abdominal cramps and diarrhea."

Xylitol (a natural sugar alcohol) can act as an osmotic laxative, drawing fluids into the bowel. A person's digestive system can become accustomed to the natural laxative action of xylitol with time. Generally, people find that intestinal symptoms subside with regular use.