

# lifepak® nano

## ENHANCED MOLECULAR DELIVERY ANTI-AGING PROGRAM



### Positioning Statement

Lifepak® nano is a nutritional anti-aging program formulated to nourish and protect cells, tissues, and organs in the body with the specific purpose to guard against the ravages of aging. Lifepak® nano offers the highest bioavailability with a first-ever nanotechnology process and advanced levels of key anti-aging nutrients in a comprehensive formula available exclusively through Pharmanex.\*

Lifepak® nano helps protect your health today and throughout your lifespan with superior benefits as an anti-aging program. This proprietary formula protects DNA and cells, nourishes and protects the brain, bolsters the immune system, supports cardiovascular health, helps regulate blood sugar metabolism, protects eye health, helps build strong bones, promotes joint function and mobility, helps protect against the effects of sun radiation, and helps maintain healthy skin tone and elasticity.\*

Lifepak® nano provides an advanced nutritional foundation for a long and healthy life—full of vitality and energy—free of debilitating conditions associated with nutritional deficiencies and the aging process. Convenient packaging of two CR-6 LipoNutrient™ softgels and five gelatin capsules in one sachet make it easy for all adults to take lifepak® nano every day with their morning and evening meals.\*

### Concept

Enjoying excellent health throughout one's lifespan begins with proper nutrition. For many adults, however, there is an even greater concern with the effects aging has on the body. Adults who want optimal health now and for years to come must combat the ravages of aging with an anti-aging supplement program, healthy diet, exercise, and rest.

Our bodies are subjected to many unnatural and often extreme demands from our modern lifestyles, including unbalanced diets, environmental pollution, insufficient physical activity, and physical and mental stress. This constant bombarding of the body's systems has a day by day effect that can result in advanced signs of aging in the body, even before one feels or sees the onset of aging. In fact, many studies suggest that if you don't have enough antioxidant protection you are accelerating the aging process. For example, sun exposure creates free radicals in your skin that can contribute to the production of wrinkles over time. But you can't see the damage until the wrinkles appear and by then you are too late.

### *The Need for Both Comprehensive and Highly Absorbable Anti-Aging Nutrients*

Due to the extreme demands placed on the body, and because the body is aging every minute and living longer every generation, there is an even greater need for anti-aging nutrients as well as common nutrients to be readily available for use by the body. Equally important to getting the comprehensive range of anti-aging nutrients is getting optimal nutrient absorption. But getting the right nutrients with the most efficacious bioavailability can be a challenge because certain fat-soluble nutrients are poorly absorbed—regardless of age, lifestyle or genetics. That's where the science of nanotechnology comes into play.

### *Nanotechnology Is the Future*

Nanotechnology is evident in every aspect of our modern lives. From manufacturing to chemistry, nothing has revolutionized how we function each day more than nano. Simply put, nanotechnology is the science of manipulating substances at the molecular level, and until now, only certain industries have been able to adapt this technology to actual consumer products.

### *Nanotechnology Helps Make Nutrients More Available to the Body*

Pharmanex has revolutionized a way to apply nanotechnology principles to anti-aging nutrients. When applied to nutrition, this nano process involves physically altering a hard-to-absorb nutrient so that it becomes more available to the body without altering its function. For example, fat-soluble vitamins like carotenoids and CoQ10 tend to bunch together in the intestine, making them difficult to absorb. To enhance absorbability, individual molecules are separated using nano encapsulation. This process prevents molecules from clinging together so they are more available for easy absorption. This superior bioavailability with new patent-pending CR-6 LipoNutrients™ is a first-ever formula to deliver NanoCoQ10™ and nano carotenoids along with other nutrients for maximum anti-aging benefits. And in the case of coenzyme Q10, this process of nano encapsulation increases bioavailability by 5–10 times\* (Craft et al, 2005).

### *Lifepak® nano Is the Innovation in Anti-Aging*

Lifepak® nano offers the highest bioavailability with a first-ever nanotechnology formula and advanced levels of key anti-aging nutrients in a comprehensive formula available exclusively through Pharmanex. Lifepak® nano is a monumental advancement in anti-aging protection with three scientific innovations:

1. superior bioavailability with new patent-pending CR-6 LipoNutrients™ in a first-ever formula that utilizes nanotechnology to deliver NanoCoQ10™ and nano carotenoids.

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2. Broad range cell and body protection with a proprietary nano carotenoid formula including novel antioxidants, NanoCoQ10™ and omega-3 fatty acids; and
3. Key ingredient advances for heart and cell health benefits including resveratrol polyphenols and a new vitamin E blend\*.

## **Lifepak® nano Addresses Specific Health Needs with Comprehensive Formulas in One Product**

Lifepak® nano consists of individual product formulas scientifically combined into one convenient product. Each sachet contains two CR-6 LipoNutrient™ softgels, one vitamin capsule, one phytonutrient capsule, and three mineral capsules.

## **Advanced Anti-Aging Nutrients for Best in Class Cellular Support**

Lifepak® nano delivers more than sixty antioxidants for broad range cell and body protection, including carotenoids such as zeaxanthin and astaxanthin, and anti-aging powerhouses NanoCoQ10™, omega-3 fatty acids, and resveratrol for advanced anti-aging protection. Lifepak® nano also delivers an updated vitamin E complex blend according to latest scientific research with higher amounts of beta, delta, and gamma tocopherols.

## **Increases Nutrient Absorption for Maximum Benefit**

Superior bioavailability is achieved with new patent-pending CR-6 LipoNutrients™ in a first-ever formula that utilizes nanotechnology to deliver NanoCoQ10™ and nano carotenoids. Fat-soluble nutrients like carotenoids and CoQ10 tend to cling together in the digestive track, making them difficult to absorb. To enhance absorbability, individual molecules are separated using nano encapsulation. This process prevents molecules from clinging together so they are individually dispersed and more available for easy absorption.

Nanotechnology is only one example of methods Pharmanex has employed to improve absorption of lifepak® nano's nutrients. Beyond nanotechnology, lifepak® nano employs other methods to enhance bioavailability, including liponutrients, chelated minerals, and buffered vitamin C. Each of these nutrient forms were selected for their superior absorption properties.

## **Protects Cells with a Powerful Antioxidant Network**

Lifepak® nano contains more than 60 antioxidants including proprietary Tegen 97® for cell health. Our bodies are under constant attack by free radicals, and science has shown that a network of antioxidants rather than a high amount of one single antioxidant is more effective in combating these damaging molecules. Free radicals contribute to the aging process and are implicated in most health conditions. Antioxidants fight free radicals to help slow down the aging process and improve health. Antioxidants have an effect on more than 50 health conditions, including cardiovascular function, eye health, CNS health, and skin health. The body relies on a steady supply of dietary antioxidants to maintain optimal health. Lifepak® nano includes all eight forms of natural vitamin E, buffered vitamin C, selenium, copper, zinc, and manganese. Other antioxidants include six carotenoids, more than 20 flavonoids (including catechins and more than 10 grape seed polyphenols), and alpha-lipoic acid\*.

## **Corrects Nutritional Deficiencies**

Lifepak® nano improves the foundation of your daily health by supplying the body with 20+ essential vitamins and minerals for optimal health and energy.

## **Improves Bone Health**

Bone health is a growing concern globally, especially for women. Lifepak® nano provides key bone nutrients in clinically significant amounts to strengthen and maintain bone health. Bone minerals calcium (600 mg) and magnesium (300 mg) are included in lifepak®

nano as the building blocks of bone health. Lifepak® nano provides vitamin D to regulate calcium and magnesium bone metabolism and vitamin K to help transport calcium to the bone.

## **Balances Immune Support**

Vitamins A, C, E, carotenoids, vitamin B6, and zinc help to bolster the immune system and give your body the nutrients to perform optimally. Lifepak® nano contains optimal levels of these nutrients to support the normal function of the immune system and keep the body healthy\*.

## **Supports Blood Sugar Metabolism**

Lifepak® nano maintains normal blood sugar levels, glucose tolerance, and insulin metabolism by supplying the body with optimum amounts of chromium, vitamin C, vitamin E, alpha-lipoic acid, magnesium, and zinc—important nutrients clinically shown to support normal blood sugar metabolism\*.

## **Helps Protect the Body with Cardiovascular Nutrients**

Lifepak® nano provides the optimum amounts of more than 60 different antioxidant nutrients that work synergistically in the body to protect the LDL blood lipids from oxidation by free radicals. LDL cholesterol is a bad cholesterol that needs to be kept at low levels. It can also become oxidized in the body. LifePak® is clinically proven to make LDL particles more resistant against oxidation from free radicals\* In addition, omega-3 fatty acids help protect the heart.

## **Helps Protect the Body against the Symptoms of Aging**

In addition to dozens of advanced anti-aging nutrients such as NanoCoQ10™ and 60+ antioxidants, lifepak® nano contains proprietary Tegen 97®—one of the most powerful antioxidants on earth—to address the central cause of aging: cellular DNA damage\*.

## **The Leader in Nutritional Supplementation**

Lifepak® nano is the leader in nutritional supplementation with a complete anti-aging program formulated to nourish and protect cells, tissues, and organs in the body with the specific purpose to guard against the ravages of aging. Lifepak® nano is the world's most scientifically balanced anti-aging supplement for adults ages 18–108 who want optimal health today and throughout their entire lifespan\*.

## **Primary Benefits**

- Nourishes and protects cells, tissues, and organs in the body with the specific purpose to guard against the ravages of aging each day of your lifespan\*
- Superior bioavailability with CR-6 LipoNutrients™ enhances uptake from the gut into the bloodstream and body for maximum anti-aging benefits\*
- Advanced anti-aging formula helps protect the body with key nutrients such as NanoCoQ10™ and nano carotenoids\*
- Helps maintain normal inflammatory responses in the body\*
- Feeds and helps protect the brain with DHA and EPA (two CR-6 LipoNutrient™ softgels contain the same amount of EPA and DHA as two MarineOmega softgels)\*
- Offers superior DNA protection against damaging free radical attacks by providing the body with important antioxidants and phytonutrients such as alpha-lipoic acid and catechins\*
- Protects cell health with an antioxidant defense network\*
- Helps protect cardiovascular health with a comprehensive blend of omega-3 fatty acids and other nutrients
- Provides comprehensive bone nutrition support\*
- Promotes healthy immune function\*
- Supports normal blood sugar metabolism\*
- Corrects nutritional deficiencies\*
- SCS certified

\*This statement has not been evaluated by Health Canada. This product is not intended to diagnose, treat, cure, or prevent any disease.

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## What Makes This Product Unique?

- New Pharmanex nanotechnology CR-6 LipoNutrients™ have a patent-pending process that allows nutrients to be formulated for optimal absorption.
- New concentrated omega-3s help maintain normal inflammatory responses and provide other anti-aging benefits.\*
- New resveratrol (the polyphenol to which scientists attribute the health benefits of red wine) for brain, heart, and anti-aging health.\*
- New more advanced and balanced vitamin E blend for better anti-aging protection.\*
- New, improved sources of magnesium and calcium for better tolerance and absorption.
- New lifepak® nano provides more than 60 different antioxidants.
- New lifepak® nano supplies the body with liponutrients and nano carotenoids in two CR-6 LipoNutrient™ softgels—astaxanthin, zeaxanthin, beta-carotene, alpha-carotene, lutein, and lycopene.
- LifePak® was the first comprehensive dietary supplement to show antioxidant benefits in double-blind, placebo-controlled studies.
- Lifepak® nano provides clinically significant amounts of essential vitamins and minerals typically lacking in the diet.
- Lifepak® nano promotes an entire antioxidant defense network to protect against free radical damage.\*
- Lifepak® nano provides a wide range of antioxidants for optimal benefits.

## Who Should Use This Product?

Every adult ages 18–108 concerned with improving their health should take lifepak® nano.

## Did You Know?

- Nanotechnology is the science of manipulating substances at the molecular level and can enhance the absorption of important nutrients.
- Omega-3 fatty acids are more desirable from a marine source than from a plant source for two reasons:
  1. Most plant and vegetable oils offer limited amounts of omega-3 fatty acids (less than 1%).
  2. Even the best plant sources (such as flaxseed oil) do not offer EPA and DHA, the specific omega-3s with the most notable health benefits.
- The DNA in each cell of your body receives 70,000 free radical hits each day.

## Frequently Asked Questions

### *How does lifepak® nano improve delivery of certain fat-soluble vitamins?*

While some nutrients in lifepak® nano have been enhanced through nanotechnology, yet others have been enhanced through their delivery in liponutrient form. Fat-soluble nutrients such as vitamins A and E have been included as part of the CR-6 LipoNutrient™ softgel capsules. Because these fat-soluble nutrients are delivered in a matrix of essential omega-3 fatty acids, they are pre-dissolved for superior bioavailability.

### *What is nanotechnology?*

As applicable to nutrition, nanotechnology is the manipulation of nutrients at the molecular level to enhance their benefits to the body. A nanometer represents one billionth of a meter and provides a useful unit for measuring ultra-small molecules. The application of nanotechnology employed by Pharmanex is a mono-molecular encapsulation where single molecules of important nutrients are embedded into single nanocapsule molecules. Since every single molecule of each nanoized nutrient is wrapped in its own individual nanocapsule there is complete molecular dispersion of the fat-soluble nutrients. With complete

molecular dispersion, the surface area of the nutrient is maximized as is its contact with the lining of the gastrointestinal tract. The nutrient is absorbed through the gut, and the encapsulating molecule is left behind where it is degraded by digestive enzymes.

### *What does CR-6 LipoNutrients™ stand for?*

Each serving of lifepak® nano is delivered in a convenient twin sachet packet; one side contains five dry capsules, and the other side contains two CR-6 LipoNutrient™ softgel capsules. The meaning of the name CR-6 stands for the six carotenoids (CR=carotenoid) present in the softgel capsule. In addition to the six carotenoids, other fat-soluble vitamins are delivered along with essential omega-3s (equivalent in potency to a serving of MarineOmega). The name CR-6 LipoNutrient™ refers to all the contents of the softgel, all of which are fat-soluble nutrients and are enhanced through pre-fat-dissolved delivery, or enhanced with nanotechnology.

### *Who should take lifepak® nano?*

Lifepak® nano is intended for adults ages 18–108 who are looking for the most advanced and comprehensive dietary health and wellness supplement. Lifepak® nano is ideal for individuals who were previously taking either LifePak®, LifePak® and LifePak Prime Complex, or LifePak® Women in conjunction with MarineOmega. Due to lifepak® nano's unique delivery of certain antioxidants, it is also ideal for individuals who feel they are genetically predisposed to poor absorption of carotenoids. Also, people prone to supplement-induced nausea may find that lifepak® nano's sources of minerals are better tolerated.

### *Do I still need to take MarineOmega if I take lifepak® nano?*

Previous to the introduction of lifepak® nano, all LifePak® family products were recommended to be taken with MarineOmega. Each serving of lifepak® nano delivers the same levels of EPA and DHA as found in one serving of MarineOmega. If you continue taking any LifePak® family product other than lifepak® nano, it is still recommended that you take MarineOmega.

### *Why is it important to take lifepak® nano twice a day?*

Lifepak® nano is a comprehensive supplement that contains a potent blend of essential micro- and macro-nutrients, as well as semi-essential nutrients shown to be generally beneficial to long-term health and well-being. It should be taken twice daily to provide your body with optimal saturation and absorption of vitamins and minerals. Twice daily delivery also provides your body with 24-hour antioxidant protection of water-soluble antioxidants that are flushed out of the body throughout the day.

### *What is an antioxidant network?*

There are hundreds of different antioxidants that can help fight free radicals and reactive oxygen species. Researchers have found that the body utilizes a broad range of antioxidants that work together to provide the body with optimal free radical protection. These antioxidants work synergistically to protect all of the delicate DNA in the body from free radical attack. It has been found that if just one or two of these antioxidants are deficient, other antioxidants in the body are not able to function optimally. Moreover, because of this antioxidant network, humans have a need to supplement their diet with a broad range of antioxidants, as found in lifepak® nano's 60+ antioxidants.\*

### *What is the difference between lifepak nano®, LifePak®, LifePak® Prime, LifePak® Women?*

Lifepak® nano has been formulated to meet the nutritional needs of all adults ages 18–108 years with the exception of pregnant women. Lifepak® nano delivers the benefits of LifePak®, LifePak® and LifePak Prime complex, and LifePak® Women but with the exciting addition of nanotechnology and CR-6 LipoNutrients™ CR-6 LipoNutrient™ softgels offer enhanced absorption for nutrients known to be poorly

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absorbed. Also, the CR-6 LipoNutrient™ softgels contain ultra-pure fish oils in amounts equivalent to a full serving of MarineOmega. A few ingredients that are available in LifePak® and LifePak Prime Complex (glucosamine) and Lifepak® Women (evening primrose oil and cranberry) are not offered in lifepak® nano. However, most of the targeted benefits of these ingredients are provided through ingredients unique to lifepak® nano. Other benefits can be achieved through separate Pharmanex® products like Eстера™ Cranberry.

## Key Scientific Studies

1. Smidt CR, Seidehamel RJ, Devaraj S, Jialal I. The effects of a nutritionally complete dietary supplement (LifePak®) on antioxidant status and LDL-oxidation in healthy non-smokers. *FASEB Journal* 1999;13(4):A546.
2. Craft NE, Tucker RT, Chitchumroonchokchai C, Failla ML, Bhagavan HN. Assessment of coenzyme Q10 bioavailability using a coupled in-vitro digestion/caco-2 human intestinal cell model. *FASEB Journal*. 2005; 19(4): Abstract #281.6, A449.
3. Kaats GR, Wise JA, Morin R, Pullin D, Squires W, Murrieta TG, Hesslink R. Reductions in DEXA measurements of body fat with different levels of involvement in a weight loss program using dietary supplements [LifePak®]. *Journal of the American Nutraceutical Association* 1 (2): 19–26, 1998.
4. Fletcher RH, Fairfield KM. Vitamins for chronic disease prevention in adults: clinical applications. *J Am Med Assoc*. 2002 Jun 19; 287(23):3127–9.
5. McKay DL, et al. The effects of a multivitamin/mineral supplement on micronutrient status, antioxidant capacity, and cytokine production in healthy older adults consuming a fortified diet. *J Am Coll Nutr*. 2000 Oct; 19(5):613–21.
6. Anderson RA, Kozlovsky AS. Chromium intake, absorption and excretion of subjects consuming self-selected diets. *American Journal of Clinical Nutrition*, 1985; 41: 1177–1183.
7. Anderson RA, Bryden NA, Polansky MM. Dietary chromium intake. Freely chosen diets, institutional diet, and individual foods. *Biological and Trace Element Research*, 1992; 32: 117–121.

## Directions for use (Adult)

Two twin sachet packets daily. Take the contents of one (1) Lifepak® nano twin sachet (5 capsules and 2 softgels) with 250 mL of liquid with your morning and evening meals.

## Warning

Keep out of reach of children. Pregnant or breastfeeding women, diabetics, hypoglycemics, and people with known medical conditions should consult with a physician prior to taking supplements. Do not use if shrink wrap is damaged or missing, or if packet is broken. Store in a cool, dry place.

## Non-Medical Ingredients

Gelatin, Microcrystalline Cellulose, Cyclodextrin, Magnesium Stearate, Beeswax, Sorbitol, Lecithin, Silicon Dioxide, Vanillin.

## Guarantee

No added sugar, salt, wheat, yeast, dairy products, preservatives, or artificial colours. Lifepak® nano is not manufactured with gluten ingredients.

## Supplement Facts

### EACH PACKET CONTAINS:

#### Vitamins (green capsule)

Vitamin C (as Calcium Ascorbate)	250 mg
Vitamin D3 (as Cholecalciferol)	300 IU
Vitamin K (as Phytonadione)	20 mcg
Thiamin (as Thiamine Mononitrate)	3.75 mg
Riboflavin (as Riboflavin)	4.25 mg
Niacin (as Niacinamide)	17.5 mg
Vitamin B6 (as Pyridoxine Hydrochloride)	5 mg
Folate (as Folic Acid)	300 mcg
Vitamin B12 (as Cyanocobalamin)	30 mcg
Biotin (as Biotin)	150 mcg
Pantothenic Acid (as D-Calcium Pantothenate)	15 mg

#### Minerals (white capsule)

Calcium (as Calcium Malate, Tricalcium Phosphate, Calcium Ascorbate)	300 mg
Phosphorus (as Tricalcium Phosphate)	62.5 mg
Iodine (as Potassium Iodide)	50 mcg
Magnesium (as Magnesium Amino Acid Chelate)	150 mg
Zinc (as Zinc Amino Acid Chelate)	7.5 mg
Selenium (as L-Selenomethionine, Sodium Selenite)	70 mcg
Copper (as Copper Amino Acid Chelate)	0.5 mg
Manganese (as Manganese Amino Acid Chelate)	1 mg
Chromium (as Chromium Amino Acid Chelate)	100 mcg
Molybdenum (as Molybdenum Amino Acid Chelate)	37.5 mcg
Silicon (as Sodium Metasilicate)	5 mg
Boron (as Boron Citrate)	1.5 mg
Vanadium (as Vanadyl Sulfate)	10 mcg

#### Softgel (red capsule)

Vitamin A (83% as Beta-Carotene from Palm Fruit and Blakeslea trispora Extracts, Vitamin A Palmitate)	7500 IU
Vitamin E (as D-Alpha Tocopherol, Tocotrienols)	100 IU
Marine Lipid Concentrate	1850 mg
EPA	(300 mg)
DHA	(200 mg)
Krill Oil	(50 mg)
Other Omega-3 Fatty Acids	(50 mg)
Tocopherol Blend (other than alpha-tocopherol)	50.5 mg
Gamma-Tocopherol	(37.5 mg)
Beta- and Delta-Tocopherols	(13 mg)
D-Limonene	25 mg
Carotenoid Blend (other than Beta-Carotene)	5 mg
Lycopene (as Lycopene)	(2.5 mg)
Alpha-Carotene (from Palm Fruit Extract)	(1 mg)
Lutein (as Lutein Ester from Marigold Flower Extract)	(1 mg)
Zeaxanthin	(0.25 mg)
Astaxanthin (from Haematococcus pluvialis Extract)	(0.25 mg)

#### Phytonutrients (yellow capsule)

Polyphenol and Flavonoid Blend	110 mg
Catechins (from Camellia sinensis Leaf Extract (20:1))	(45 mg)
Citrus Bioflavonoids (from Citrus Fruits)	(25 mg)
Quercetin	(25 mg)
Grape Seed Extract (min. 95% Polyphenols)	(12.5 mg)
Resveratrol (as trans-resveratrol)	(2.5 mg)
Alpha-Lipoic Acid	25 mg
N-Acetyl-L-Cysteine	25 mg
Inositol (as Inositol)	5 mg
NanoCoQ10 (Ubiquinone)	2.5 mg

\*This statement has not been evaluated by Health Canada. This product is not intended to diagnose, treat, cure, or prevent any disease.

