

NUTREASE POWDER- NATURE’S BLEND OF PROTEIN, FIBER & PHYTOCHEMICALS IN NUTRITIONAL DETOXIFICATION & CLEANSING OF BODY’S TOXINS FROM INTERNAL ORGANS AND TISSUE.

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Abstract

The body’s ability to rid itself of toxic substances is largely dependent upon the liver. Overexposure to environmental toxins in the air and in our diet can put excessive strain on the liver’s detoxification systems and can rob us of our health.

Detoxification in the liver occurs in two general phases: Phase I and Phase II. Depending upon the availability of many critical nutrients, the activity of either phase may be reduced or enhanced. Adequate nutritional supplement like Nutrease powder helps to insure proper functioning of both phases of detoxification. Scientific research has revealed that Nutrease powder is helpful in detoxification & cleansing of our Toxic metabolic products. This review summarizes the current available scientific literature regarding the effect of NUTREASE POWDER, The Nature’s blend of protein, Fibers & plant extracts (phytochemicals) in detoxification & cleansing program.

Introduction

The liver is the most important organ in the body involved in detoxification. It is in the liver where toxic substances, such as drugs, alcohol, and environmental toxins, undergo a process called biotransformation which renders them less harmful and helps to facilitate their removal from the body.[1]

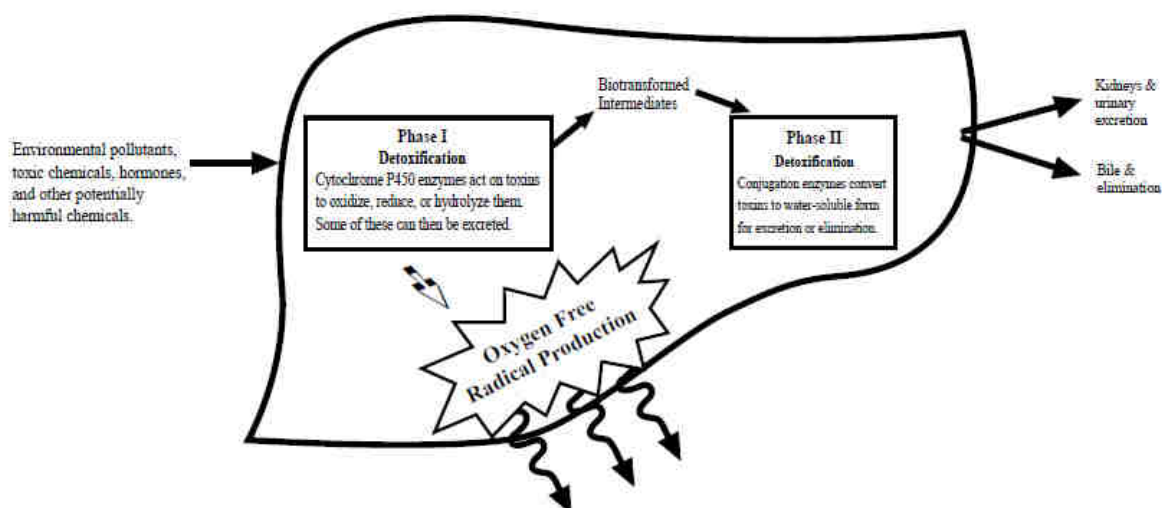
Liver detoxification involves a number of enzymatic systems which are divided into two general phases: Phase I and Phase II. Phase I involves the activation of a series of enzymes called the cytochrome P450 mixed-

function oxidases. These enzymes begin the process of biotransformation by oxidizing, reducing, or hydrolyzing toxins, creating biotransformed intermediates. Phase II enzymes perform conjugation reactions which help to convert the biotransformed intermediates from Phase I into less toxic, water-soluble substances that are easily excreted or eliminated from the body. Phase II enzymes may also catalyze reactions independent of Phase I activity, acting directly upon a drug or toxin that does not require biotransformation.

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In some instances, Phase I enzymes can actually transform a non-toxic foreign substance into a harmful, toxic substance. For example, a relatively harmless component of cigarette smoke is biotransformed during Phase I into a carcinogenic compound. A properly functioning Phase II system should, however, act to detoxify the metabolically activated carcinogen. To effectively eliminate biotransformed intermediates, Phase II enzyme activity must be in balance with Phase I, otherwise toxins may accumulate in the body. Another potentially

damaging effect of Phase I is the production of oxygen free radicals that occurs as a result of cytochrome P450 activity. As a person’s toxin load increases, so does cytochrome P450 activity, which can expose the liver to greater oxidative stress. Adequate intake of Natural antioxidants in Nutrease powder such as vitamin C and vitamin E, and certain naturally occurring phytochemical compounds present in Nutrease Powder helps to protect the liver against free radical damage thus played effective role in Detoxification & Cleansing Program in Human body.



Balanced nutrition support by Nutrease powder in detoxification enzyme activity

Adequate nutritional Support by Nutrease powder helps to insure proper functioning of both Phase I and Phase II detoxification and to reduce the risk of free radical damage produced during the detoxification process. Several nutrients in Nutrease powder such as vitamin C, vitamin E, and the B vitamins are required for cytochrome P450 activity. Glutathione and the amino acid cysteine help to regulate Phase II conjugation reactions. The activity of each phase may be reduced or enhanced depending on the availability of critical nutrients.[2,3]

Phytochemical Compounds In Nutrease Powder Support Detoxification

Nutrease Powder helps to protect the liver against free radical damage thus played effective role in Detoxification & Cleansing Program in Human body.

Population studies from around the world have consistently shown that diets rich in fruits and vegetables are associated with lower risks of cancer.[4] These findings suggest that the antioxidant activity of several vitamins and minerals present in fruits and vegetables plays a protective role against cell damage or mutation caused by free radicals. But what may also be beneficial are the multitude of non-nutrient

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compounds (phytochemicals) that are present in plant foods.[5-9] Some compounds may act as blocking agents: they prevent, or *block*, carcinogens from reaching or reacting with critical target sites in tissue. Others may act as suppressing agents, compounds which suppress the growth and change of cells that have been exposed to carcinogens and would otherwise cause cancer. [10]

Mechanisms by which Nutrease Powder played effective role in Detoxification & Cleansing Program in Human body.

- Inhibit the biotransformation of non-carcinogenic compounds into carcinogenic compounds.
- Induce detoxification enzyme pathways- including Phase II enzymes which facilitate the removal of carcinogens from the body.
- Scavenge free radicals.

Table 1: Shows lists some of the phytochemicals that have been identified as blocking agents.

COMPOUND	SOURCE
isothiocyanates	cruciferous vegetables (broccoli, cabbage, kale)
glucosinolates	cruciferous vegetables
organosulfur compounds	<i>Allium sp.</i> (garlic, onions)
curcumin	turmeric
flavonoids	numerous plants
monoterpenes	citrus peel

Clinical study data on ingredients in nutrease powder

In several studies, laboratory animals fed a crude, unrefined diet composed of natural constituents containing both nutrients and non-nutrients developed fewer carcinogen induced tumors than animals fed the same diet, but refined and devoid of the non-nutrient components of food.[11-13] Higher levels of Phase II enzyme activity were also reported.[14,15] Phytochemicals may thus offer support for liver detoxification of foreign chemicals and carcinogens. Curcumin also functions as an antioxidant and helps to protect against free radical damage to cells and DNA.[16] Its antioxidant activity may have also contributed to the apparent cancer protective actions reported in the studies.

Green tea (*Camellia sinensis*) compounds increase both phase 1 and phase 2 enzyme activities. Research shows that green tea may have liver protective properties. In addition, green tea has been shown to block chromosomal (DNA) damage from chemicals in cigarette smoke.

Green tea polyphenols are associated with a reduced risk of certain cancers in humans. Other research has also shown an anticancer effect from these polyphenols, including an inhibition of metastasis in skin cancer cells.

Nutrease Powder, A powerhouse of potent natural ingredients formulated to help support the body’s natural ability to remove toxins and other chemical impurities from internal organs and tissue.

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Composition of Nutrease Powder

Serving Size : 30g (1 Scoop)		Serving per container : 20
Supplement Facts	Per 100g Approx	Per 30g Approx
Energy	349.86 Kcal	104.96 Kcal
Protein	38.723g	11.61g
Total Carbohydrate	53.05g	15.91g
Dietary Fiber	22.17g	6.648g
Sugar	6.093g	1.82g
Total Fat	3.00g	0.902g
Saturated Fats	2.62g	0.78g
Mono Unsaturated Fats	0.133g	0.040g
Poly Unsaturated Fats	0.116g	0.034g
VITAMINS		
Vitamin A	2000IU	600IU
Vitamin C	40mg	12mg
Vitamin E	10mg	3mg
Thiamine	0.075mg	0.03mg
Riboflavin	0.05mg	0.015mg
Niacin	0.21mg	0.063mg
Pantothenic Acid	0.24mg	0.072mg
Pyridoxine	0.1mg	0.03mg
Folic Acid	0.002mg	0.0006mg
MINERALS		
Calcium	100mg	30mg
Iron	5mg	1.5mg
Phosphorus	200mg	60mg
Selenium	100mcg	30mcg
Copper	5mg	1.5mg
Chromium	100mcg	30mcg
Potassium	50mg	15mg
Sodium	50mg	15mg
Choline	15mg	4.5mg
Manganese	2mg	0.6mg
Zinc	5mg	1.5mg
Magnesium	100mg	30mg

INGREDIENTS :

Inulin, Soya Protein Isolate, Pea Protein Isolate, Whey Powder, Cyclodextrin, Partially Hydrolyzed Guar gum, Guava Leaf Extract, Moringa Extract, Sesbania Extract, Annatto Extract, Green Tea Extract, Holy Basil Extract, Amla Extract, Lemon Peel Extract, Citrus Bioflavonoids, Flax Seed Powder, Brassica, Lactobacillus Gasseri, Papaya Fruit Latex, Pine Apple Extract, Steviol Glycosides (Rebaudioside A), Ginger Powder, Curcuminoids, Banana Leaf Extract, β -Carotene, Di Calcium Phosphate, Choline, Copper Sulphate, Manganese Sulphate, Fructose, Riboflavin, Skimmed Milk Powder, Xanthum gum, Apple Fiber, Sodium Carboxymethyl Cellulose, Mango Powder and Mango Flavor.

Mechanism of action of nutrease powder

Nutrease contains standardized plant-based vitamins and minerals which include a

diverse mixture of substances including dozens of closely related vitamins and phytonutrients to help potentiate insulin

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action and thus influence carbohydrate, lipid and protein metabolism. Targeted botanicals and antioxidants like curcuminoids, sulforaphane glucosinolate from Broccoli Extract and Ginger Extract to help regulate metabolism, stimulate digestion and to provide long-lasting cell protection from free radical damage. Probiotics and prebiotics like Lactobacillus gasseri and Inulin to help balance intestinal flora, reduce waist circumference and reduce adipocyte size through inhibition of leptin levels. Good fats like omega 3,6 & 9 from Flaxseed and Medium Chain Triglycerides (MCT), help to maintain healthy levels of blood sugar

and triglycerides, enhance metabolism to burn more calories. Optimum fibers like alpha cyclodextrins, partially hydrolyzed guar gum, and oat fiber to help promote intestinal regularity, to increase the satiety and improve glycemic effect of meal. Plant enzymes like bromelain and papain for better digestion and absorption of proteins. Premium blend of Natural protein concentrate and pea protein isolate to meet the daily protein requirements and to maintain lean muscle mass.

Pharmacological action of each ingredients of nutrease powder



Balanced Protein Mix
WHEY PROTEIN + PEA PROTEIN
+ SOY PROTEIN

Different in terms of Amino Acid Ratio, Bioavailability and their effects in repair and synthesis of muscles

WHEY PROTEIN

- ▶ Works Faster after Ingestion
- ▶ Leans the body quicker & works in shorter time
- ▶ Contains more of a fast Amino Acids Spike
- ▶ Has more sulphur, Essential Amino Acids and BCAA's
- ▶ Increases protein synthesis to a greater degree
- ▶ Meets PDCAA's Ratio 0.91 below 1

PEA PROTEIN

- ▶ Works Faster and Quick absorption after Ingestion
- ▶ Easily Digested.
- ▶ Pea protein is not slouch with regards to its digestibility.
- ▶ Helps to lose weight, builds muscle and fights heart diseases.
- ▶ Increases protein synthesis
- ▶ Dairy Free and Vegan
- ▶ Meets PDCAA's Ratio 0.89 below 1

SOY PROTEIN

- ▶ Works easy and quick absorption.
- ▶ Decreases stress on bones, increases stamina & improves blood sugar control.
- ▶ Contains fewer calories, less total fat and saturated fats.
- ▶ Has low glycemic index.
- ▶ Maintains lean muscle mass
- ▶ Meets PDCAA's Ratio of 1



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Nutrease contains plant based broad spectrum Vitamins & Minerals which includes a diverse mixture of substances including dozens of closely related Vitamers and Phytonutrients

BANANA LEAF EXTRACT:

- ▶ Banana leaves are standardized for **Sodium** and **Potassium**.
- ▶ Promotes healthy digestion & contains large amounts of polyphenols (natural antioxidants) such as epigallocatechin gallate, or EGCG, a potent antioxidant and skin rejuvenator.
- ▶ Helps to promote fat oxidation and lowering body weight.



MORINGA EXTRACT:

- ▶ Natural energy booster, standardized for **Chromium**.
- ▶ Contains massive amounts of antioxidants like vitamin C, beta-carotene, quercetin, and chlorogenic acids. It is also rich in Protein, Vitamin A, Vitamin B6, and Minerals.
- ▶ Essential nutrient that potentiates insulin action, and thus influences carbohydrate, lipid, and protein metabolism.

MUSTARD SEED EXTRACT

- ▶ Mustard seed extract standardized for **Selenium**, along with the co-factors and co-nutrients.
- ▶ Helps to support thyroid hormone production, function as part of many enzymes, has antioxidant effects, can help in lowering blood pressure, moderate blood sugar levels, maintain healthy skin, and maintains immune system.



CURRY LEAF EXTRACT

- ▶ Curry leaf extract is standardized for **Iron** and is also a good source of antioxidant.
- ▶ Has shown to have medical properties such as anti-diabetic, antioxidant, antimicrobial, anti-inflammatory and hepatoprotective.
- ▶ Helps to reduce bad LDL cholesterol levels and maintains hemoglobin levels.
- ▶ It also contains various nutrients like vitamin A, C, B, E, Calcium, Phosphorus, Magnesium and copper.

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GUAVA LEAF EXTRACT:

- ▶ Guava leaves extract is standardized for **Zinc** & it contains flavonoids, polyphenols, ursolic acid, essential oils and tannins.
- ▶ Helps to maintain growth, the immune system, cell growth and division.
- ▶ Helps in breakdown of carbohydrates.



AMLA EXTRACT

- ▶ Amla extract standardized for **Vitamin C**, contains polyphenols and bioflavonoids.
- ▶ It is also rich in anti-oxidants, fibre and minerals like calcium and phosphorus.
- ▶ Helps in speed metabolism, especially that of proteins.

ANNATTO EXTRACT:

- ▶ Annatto extract standardized for **Vitamin E**.
- ▶ Helps to limit the liver's ability to produce LDL (Low Density Lipoprotein) cholesterol.
- ▶ Helps to improve digestion.



BLEND OF GUAVA, SESBANIA, HOLY BASIL, LEMON PEEL EXTRACT AND CITRUS BIOFLAVONOIDS:

- ▶ This extract standardized for all **Natural B-Complex Vitamins** (except B-12), along with its co-nutrients and co-factors that help to support the activity and stability of the B-Complex vitamins.
- ▶ Guavas are rich in nutrients including vitamins, carotenoids, polyphenols and antioxidant pigments & lemon peels are rich in vitamins, including folic acid and folates, and phytonutrients.
- ▶ Tulsi is a sacred plant for Hindus, and a very well documented medicinal plant in Ayurveda. Modern science has confirmed that it has many healthy nutrients like ursolic acid & rosmarinic acid that provide a wide range of health benefits.

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SOLUBLE AND INSOLUBLE FIBERS

HEALTH BENEFITS OF FIBER

- ▶ Normalizes bowel movements & maintain bowel health.
- ▶ Helps control blood sugar levels & lowers cholesterol levels.
- ▶ Aids in achieving healthy weight.



This product uses four types of specialty fibers from:

- ▶ SUNFIBER FROM TAIO (Partial hydrolyzed guar gum)
- ▶ INULIN FROM FIBRULINE, BELGIUM (Inulin- Chichory extract)
- ▶ GAMMA CYCLODEXTRIN FROM WACKER, US
- ▶ APPLE FIBER FROM VITACELL

SUNFIBER FROM TAIO (Partial hydrolyzed guar gum)

- ▶ Helps aid satiety (feeling of fullness) and improves glycemic effect of a meal.
- ▶ Easily digestible, prevents gas and bloating which is often experienced with a high fiber supplement
- ▶ Helps to improve mineral absorption.
- ▶ Helps to promote intestinal regularity & maintain digestive health.

INULIN FROM FIBRULINE, BELGIUM (Inulin- Chichory extract)

- ▶ Helps to provide the energy source for the beneficial bacteria living in the gut.
- ▶ Helps to relieve from constipation.
- ▶ Helps to increase calcium absorption and possibly magnesium absorption.
- ▶ A natural prebiotic

CYCLODEXTRIN FROM WACKER, US

- ▶ Water soluble, non-digestible fiber.
- ▶ Cyclodextrin helps to coat fat molecules in the food making them incapable to absorb.

APPLE FIBER FROM VITACELL, INDIA

- ▶ Helps to remove toxic substances from the digestive tract.
- ▶ Helps to remove unhealthy fats before they are stored in the body.
- ▶ Helps to reduce your risk for heart problems & enhance bowel function.



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TARGETED BOTANICALS

BROCCOLI EXTRACT

- ▶ Sulforaphane glucosinolate extracted from Broccoli is a potent anti-oxidant.
- ▶ It is rich in calcium, iron & vitamin A, C & E.
- ▶ Provides long-lasting cell protection from free radical damage.
- ▶ Helps to exert a fat burning effect by triggering the breakdown of fat cells.
- ▶ Helps to prevent colon cancer, reduce blood pressure and heart disease.
- ▶ Helps to improve digestion.



CURCUMINOIDS FROM MOTHER TURMERIC EXTRACT

- ▶ Potent anti-oxidant, anti-inflammatory & cancer preventive molecule.
- ▶ Helps to assist the liver's detoxification activity.
- ▶ Controls appetite & increases the production of an adiponectin hormone.
- ▶ Increases the body's natural defense against allergens by increasing antibody response.
- ▶ Helps to lower bad cholesterol and improves digestion.



GINGER EXTRACT

- ▶ An anti-inflammatory
- ▶ Improve blood sugar levels & leptin levels
- ▶ Helps to regulate metabolism, stimulate digestion and reduces cortisol production.
- ▶ Helps to regulate cholesterol and increase energy level.



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PRO-BIOTIC SUPPORT

(LACTOBACILLUS GASSERI)

- ▶ Lactobacillus gasseri helps to inhibit increase in body weight and white adipose tissue weight & help in reducing waist circumference. (Seun-Pil jung. Et al., K.J. F.M. 2013; 34: 80-89)
- ▶ Lactobacillus gasseri helps to reduce adipocyte size through inhibition of energy input and the level of leptin. (Essam M. Hamad. Et al., B.J. Nutrition (2009), 101, 716-724)
- ▶ Lactobacillus gasseri helps to reduce the serum and hepatic cholesterol and increase excretion of faecal fatty acids and total neutral faecal sterols. (Essam M. Hamad. Et al., B.J. Nutrition (2009), 101, 716-724)

GOOD FATS

FLAXSEED POWDER WITH OMEGA 3, 6, 9 FATTY ACIDS

- ▶ Helps to maintain healthy levels of blood sugar and triglycerides.
- ▶ Helps to promote healthy insulin response & reduces cholesterol.
- ▶ Supports colon detoxification, fat loss, increase metabolism and fat burning potential.

MEDIUM CHAIN TRIGLYCERIDES (MCT)

- ▶ Helps to enhance metabolism to burn more calories.
- ▶ Good source of energy and preserves muscle glycogen.
Helps to suppress appetite.



PLANT ENZYMES FOR BETTER ABSORPTION PAPAIN FROM PAPAYA FRUIT LATEX AND BROMELIN FROM PINEAPPLE EXTRACT

- ▶ Protein digestion enzymes.
- ▶ Helps to break large protein molecules into smaller and easing their absorption.
- ▶ To help to reduce Irritable Bowel Syndrome (IBS)



The enzymes helps to breakdown any toxin molecules that have a neutral pH. Hence, the stomach is able to break down proteins that are normally absorbed and transferred to fat, which is known as enzyme digestion. This stops the digestive system from malfunctioning.

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One and only supplement with standardized plant based Vitamins & Minerals

Synthetic Vitamins & Minerals



Single / Isolated Vitamers

“Natural” Vitamins & Minerals



Single / Isolated Vitamers

Plant - Based Vitamins & Minerals



Broad-spectrum mix of vitamers

Figure 1. Most “natural” vitamin supplements are chemically stripped down to a single vitamer, which are more closely related to synthetic vitamins than true plant-based vitamins.

Synthetic Vitamins & Minerals

- ▶ Are made up of industrial chemicals like petroleum derivatives (hydro carbons).
- ▶ Chemical structure varies compared to Natural and plant based vitamins & minerals.
- ▶ Doesn't contain broad spectrum of closely related vitamins, minerals and phytonutrients co-factors and conutrients.
- ▶ Has failed to protect against diseases.
- ▶ Less Bioavailable.
- ▶ They are less absorbed and have more risks of Side effects.

Plant-Based Vitamins & Minerals

- ▶ Extracted from fruits vegetables, herbs, fungi and other natural sources.
- ▶ Chemical structure and chemical diversity of vitamins and phytonutrients are naturally retained.
- ▶ contains broad spectrum of closely related Vitamins, Minerals, Phytonutrients, Co-factors, and Co-nutrients.
- ▶ Has shown effective protection role against diseases.
- ▶ Bioavailability is purely high.
- ▶ Highly absorbed and have very less side effects.

Synthetic / isolated vitamins



VS.

Broad-spectrum plant-based vitamins



Supplement Facts

Presentation: POWDER

“Nutrease powder- Nature’s blend of protein, fiber & phytochemicals in nutritional detoxification & cleansing of body’s toxins from internal organs and tissue.”

Usage: As a food supplement. It is a combination of Natural vitamins and minerals Natural Antioxidant & Phyto-Nutrients. Nutrease Powder helps to protect the liver against free radical damage thus played effective role in Detoxification & Cleansing of Toxic chemicals in Human body.

Contra-indications: Product is contra-indicated in persons with Known hypersensitivity to any component of the product hypersensitivity to any component of the product.

Recommended usage: Once or twice a day along with portion controlled nutritious meals and exercise.

One Serving (30g- 1 Scoop) provides 104 Calories, 11.61g of proteins, 6.64g of Fiber and 1.82g of Sugar per day.

“Do not exceed the recommended daily dose”.

Directions for Use: Take one level scoop (30g) with skimmed milk or water to make a cup of 200ml. Gently shake well in shaker or stir well until the powder is evenly dispersed and drink immediately.

Administration: Taken by oral route at any time with food.

Precautions: Food Supplements must not be used as a substitute for a varied and balanced diet in weight management program and in healthy lifestyle. This Product is not intended to diagnose, treat, cure or prevent any diseases. Do not exceed the recommended daily dose.

Warnings: If you are taking any prescribed medication or has any medical conditions always consults doctor or health care practitioner before taking this supplement.

Side Effects: Mild side effects like nausea, headache and vomiting in some individuals have been reported.

Storage: Store in a cool, dry and dark place.

Conclusion

Good nutrition like Nutrease which is rich in Bioavailable Natural essential nutrients, helps to ensure a healthy, properly

functioning detoxification system. In addition, recent research suggests that many of the phytochemicals found in Nutrease powder supports liver detoxification and are associated with a reduced risk of cancer. Several of these plant compounds appear to induce Phase II enzymes which may inhibit carcinogenesis by detoxification. Induction of Phase II enzymes, such as quinone reductase and glutathione S-transferase, appear to have a protective effect in a number of experimental animal studies. Clinical studies further support the health promoting effects of Nutrease powder.

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