



PUGOS Nutrition for Detoxification & Cleansing of body's toxins from internal organs and tissues.

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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 Synergistic effect of nutritional supplement Nutrease shake & Nudetox capsules helps to insure proper functioning of both phases of detoxification. Scientific research has revealed that Nutrease shake & Nudetox capsule is helpful in detoxification & cleansing of toxic metabolic products from our body. This review summarises the current available scientific literature regarding the Nutritional Detoxification & Cleansing of body's toxins from internal organs and tissues.

INTRODUCTION

Why body detoxification is important?

- Due to pollution, tens of thousands of toxic chemicals have been introduced into our environment. Added to this, use of alcohol, tobacco, prescription and illicit drugs has made it a challenging task for the body to get rid of these chemicals.
- Removal of these toxic elements or body detoxification becomes very important for a healthy living.
- The Liver carries the greatest burden of detoxifying the foreign substances that are toxic to the body. It plays a major role in the detoxification of numerous substances in the body, whether these substances

come from the environment, from food or formed within the body (from hormones) and other substances).

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 bio transformed intermediates. Phase II enzymes perform conjugation reactions which help to convert the bio transformed 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.

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 bio transformed 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 bio transformed 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 shake & Nudetox capsules & naturally occurring phytochemical compounds helps to protect the liver against free radical damage thus played effective role in Detoxification & Cleansing Program in Human body.

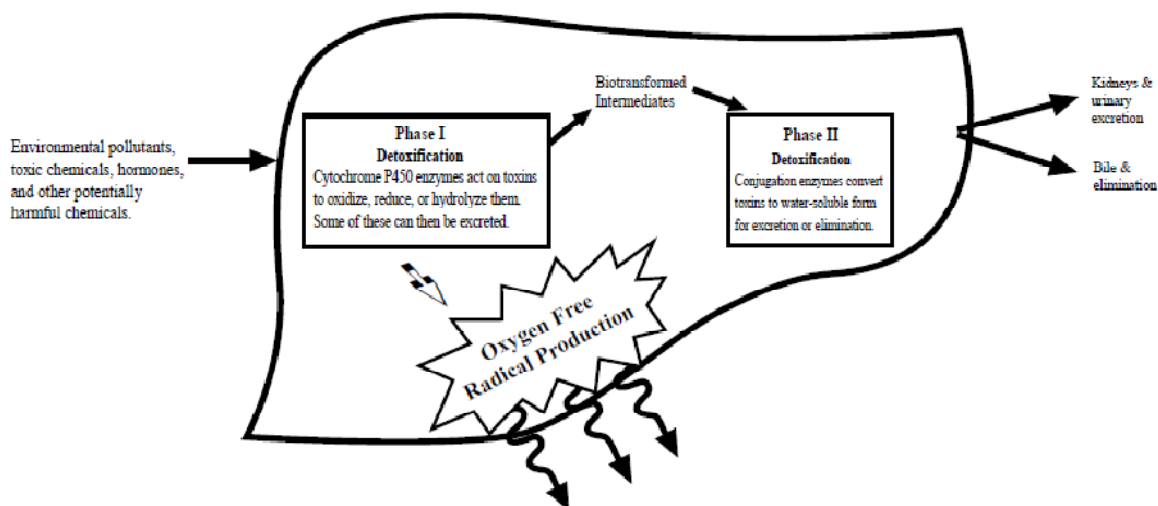


Figure1

Balanced nutrition support by natural nutrease shake&nudetox capsules in detoxification enzyme activity

Adequate nutritional Support by Nutrease shake & Nudetox capsules 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 shake & Nudetox capsules 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 natural nutrease shake&nudetox capsules support detoxification

Nudetox capsules 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 no nutrient 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 shake & Nudetox capsules played effective role in Detoxification & Cleansing Program in Human body.

- Inhibit the biotransformation of no 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.

List of 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

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

RECOMMENDED PUGOS NUTRITIONAL SUPPLEMENTS.

Recommended Nutrition for Detoxification is NATURAL NUTREASE SHAKE + NUDETOX CAPSULE 28 days course.

NUDETOX CAPSULE

What is Nudetox?

- Nudetox is a blend of food ingredients, nourishing herbs, antioxidants, amino acids and minerals together are mainly required for liver detoxification.
- These beneficial ingredients help to support the intensive cleaning of the tissues.
- The unique combination promotes healthy detoxification.

COMPOSITION OF NUDETOX CAPSULES

Supplement Facts	
Serving size : 1 Capsule	Servings per container : 60
Each Capsule Contains	
Silymarin Extract	50mg
N-Acetyl-L-Cysteine	40mg
Alpha Lipoic Acid	50mg
L-Leucine	30mg
L-Valine	27mg
L-Isoleucine	27mg
L-Glycine	27mg
Grape Seed Extract	34mg
Sodium Molybdate	3mcg
DL-Methionine	27mg
Taurine	27mg
L-Glutamine	27mg

Table 2

Pharmacological Action of Nudetox capsules

Grape seed Extract:

- Antioxidant with its flavonoid phytonutrients helps to detoxify liver from toxins, drugs and supports immunity.

N-Acetyl Cysteine:

- It is a precursor of L-glutathione and eliminates xenobiotics and intestinal endotoxins.

Alpha Lipoic Acid:

- Powerful antioxidant that helps to remove toxins and by-products of fat metabolism.

Silymarin Extract:

- A natural herb that has antioxidant and anti-inflammatory properties. It helps to protect the liver functions against environmental toxins.

Taurine and Glycine:

- Helps to support healthy metabolism and elimination of xenobiotics. They help to support the metabolic integrity of mitochondria.

Minerals:

- To neutralize the toxins involved in protein metabolism.

Amino acids:

- Helps to eliminate heavy metals such as mercury and arsenic and also helps to support glutathione production and healthy cell cycling activity. They help to manufacture phase I detoxification enzymes.

INDICATIONS:

NUDETOX CAPSULES are indicated for Nutritional Detoxification & Cleansing of body's toxins from internal organs and tissues.

CONTRA-INDICATIONS:

Known contraindications to any ingredients of the supplement.

DOSAGE AND DIRECTIONS FOR USE:

Take 1-2 Nudetox capsules daily

It is taken preferably with meals or as directed by a physician, licensed nutritionist. Or certified trainer

SAFETY:

Nudetox capsules has an excellent safety record in both animal & human investigations, should be considered as a supplement of choice

Nudetox capsules are generally regarded as safe when taken in the recommended doses; however, mild reactions can include gastrointestinal problems, such as nausea.

Nudetox capsules are generally well tolerated. Because of lack of long-term safety data, it should be avoided by pregnant women and nursing mothers.

SIDE-EFFECTS:

Epigastric pain/tenderness, heartburn, diarrhea and nausea, flushing.

SPECIAL PRECAUTIONS:

Take Nudetox capsules with or directly after meals to lessen the possibility of gastrointestinal upset.

It should be avoided by pregnant women and nursing mothers.

STORAGE CONDITIONS:

Store in a cool & dry place, protected from light.

Keep out of reach of children.

STORAGE LIFE IS 2 YEARS.

The preparation should not be used after the expiry date.

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

PHARMACOLOGICAL ACTION OF EACHINGREDIENTS OF NUTREASE POWDER

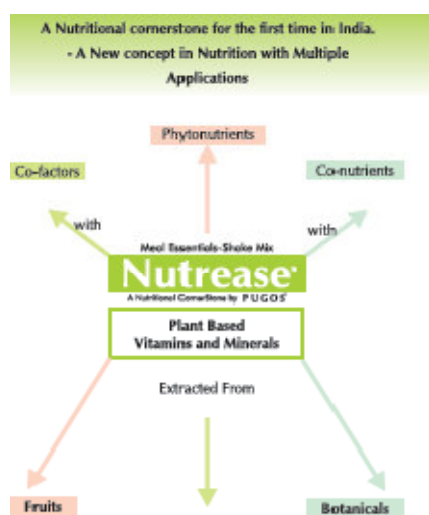


Figure2

COMPARISON CHART		
NUTRITIONAL INFORMATION	NUTREASE	OTHER MARKET BRANDS
DIET PROTEIN & DIET PROTEIN / PLANT PROTEIN	✓	✗
DIET BERRY VITAMIN & MINERAL	✓	✗
LOW SUGAR	✓	✗
DETOXIFICATION SUPPORT	✓	✗
NATURAL PROTEIN	✓	✗
PARTIALLY HYDROLYZED CLINIC GEL	✓	✗
ARTIFICIAL SWEETENERS	✗	✓
ARTIFICIAL PRESERVATIVES	✓	✗
PROTEIN ENZYME INHIBITORS	✓	✗
GROSS JARS	✓	✗
DIETARY FIBER	✓	✗
PRESERVATIVE / GELATIN	✓	✗

Figure3

**Nutrese 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 hepato-protective.
- ▶ 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.

Figure 4

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.

Figure 5

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

SUNFIBER FROM TAO (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.



Figure 6

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.



Figure 7

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.

Figure 8

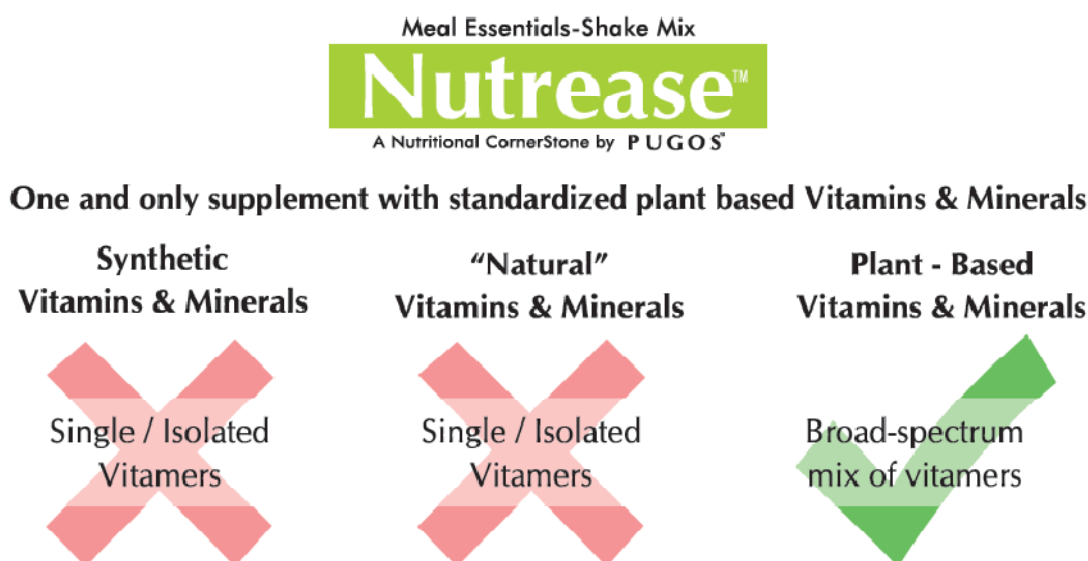


Figure 1. Most “natural” vitamin supplements are chemically stripped down to a single vitamin, which are more closely related to synthetic vitamins than true plant-based vitamins.

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.



Figure 9

SUPPLEMENT FACTS

Presentation: POWDER

Usage: DETOXIFICATION & CLEANSING OF BODY'S TOXINS FROM INTERNAL ORGANS AND TISSUE.

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 Fibre 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 drinks 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 and 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 healthcare 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 nutraceutical supplement like Natural Nutrease Shake &Nudetox capsules which is rich in Bio available Natural essential nutrients helps to ensure a healthy, properly functioning detoxification system. In addition, recent research suggests that many of the phytochemicals found in Natural Nutrease Shake &Nudetox capsules 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 Synergistic effect of Natural Nutrease Shake &Nudetox capsules.

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