

## NUTREASE POWDER- Nature's Blend of Protein, Fiber & Phytochemicals in Human Appetite and Body Weight

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### ABSTRACT

Obesity is a leading preventable cause of death worldwide, with increasing prevalence in adults and children, and it is one of the most serious public health problems of the 21st century. Obesity increases the likelihood of various diseases, particularly heart disease, type 2 diabetes, obstructive sleep apnea, certain types of cancer, and osteoarthritis. Obesity is most commonly caused by a combination of excessive food energy intake, lack of physical activity, and genetic susceptibility. Dieting and physical exercise are the mainstays of treatment for obesity. Diet quality can be improved by reducing the consumption of energy-dense foods such as those high in fat and sugars, and by increasing the intake of dietary fiber. Since obesity has grown to epidemic proportions, its effective management is a very important clinical issue. Despite the great amount of scientific effort that has been put into understanding the mechanisms that lead to overconsumption and overweight, at the moment very few approaches to weight management are effective in the long term. On the other hand, modern society is also affected by the growing incidence of eating disorders on the other side of the spectrum such as anorexia and bulimia nervosa which are equally difficult to treat. 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 human appetite and body weight.

### INTRODUCTION

**Obesity** is a medical condition in which excess body fat has accumulated to the extent that it may have an adverse effect on health, leading to reduced life expectancy and/or increased health problems. People are considered obese when their body mass index (BMI), a measurement obtained by dividing a person's weight in kilograms by the square of the person's height in metres, exceeds  $30 \text{ kg/m}^2$ .<sup>[3]</sup>

Obesity increases the likelihood of various diseases, particularly heart disease, type 2 diabetes, obstructive sleep apnea, certain types of cancer, and osteoarthritis.<sup>[2]</sup> Obesity is most commonly caused by a combination of excessive food energy intake, lack of physical activity, and genetic susceptibility, although a few cases are caused primarily by genes, endocrine disorders, medications or psychiatric illness. Evidence to

support the view that some obese people eat little yet gain weight due to a slow metabolism is limited; on average obese people have a greater energy expenditure than their thin counterparts due to the energy required to maintain an increased body mass.<sup>[4][5]</sup>

Dieting and physical exercise are the mainstays of treatment for obesity. Diet quality can be improved by reducing the consumption of energy-dense foods such as those high in fat and sugars, and by increasing the intake of dietary fiber. Anti-obesity drugs may be taken to reduce appetite or inhibit fat absorption together with a suitable diet. If diet, exercise and medication are not effective, a gastric balloon may assist with weight loss, or surgery may be performed to reduce stomach volume and/or bowel length, leading to earlier satiation and reduced ability to absorb nutrients from food.<sup>[6][7]</sup>

Obesity is a leading preventable cause of death worldwide, with increasing prevalence in adults and children, and authorities view it as one of the most serious public health problems of the 21st century.<sup>[8]</sup> Obesity is stigmatized in much of the modern world (particularly in the Western world), though it was widely perceived as a symbol of wealth and fertility at other times in history, and still is in some parts of the world.<sup>[2][9]</sup> In 2013, the American Medical Association classified obesity as a disease.<sup>[10][11]</sup>

## Classification

BMI	Classification
< 18.5	Underweight
18.5-24.9	normal weight
25.0-29.9	Overweight
30.0-34.9	class I obesity
35.0-39.9	class II obesity
> 40.0	class III obesity

BMI is defined as the subject's mass divided by the square of their height, expressed kilograms per square meter and calculated as:

$$\text{BMI} = \frac{\text{mass(kg)}}{(\text{height(m)})^2}$$

$$= \frac{\text{mass(lb)}}{(\text{height(in)})^2} \times 703$$

The most commonly used definitions, established by the (WHO) in 1997 and published in 2000, provide the values listed in the table at right.<sup>3</sup>

Some modifications to the WHO definitions have been made by particular bodies. The surgical literature breaks down "class III" obesity into further categories whose exact values are still disputed.<sup>[17]</sup>

- Any BMI 35 or 40 is *severe obesity*
- A BMI of 35 and experiencing obesity-related health conditions or 44.9 is *morbid obesity*
- A BMI of 45 or 50 is *super obesity*

As Asian populations develop negative health consequences at a lower BMI than Caucasians, some nations have redefined obesity; the Japanese have defined obesity as any BMI greater than 25<sup>[18]</sup> while China uses a BMI of greater than 28.<sup>[19]</sup>

## Effects on health

Excessive body weight is associated with various diseases, particularly cardiovascular diseases, diabetes mellitus type 2, obstructive sleep apnea, certain types of cancer, osteoarthritis<sup>[2]</sup> and asthma.<sup>[2][20]</sup> As a result, obesity has been found to reduce life expectancy.<sup>[2]</sup>

## Mortality

Obesity is one of the leading preventable causes of death worldwide.<sup>[8][22][23]</sup> Large-scale American and European studies have found that mortality risk is lowest at a BMI of 25 kg/m<sup>2</sup><sup>[21][24]</sup> in non-smokers and at 27 kg/m<sup>2</sup> in current smokers, with risk increasing along with changes in either direction.<sup>[25][26]</sup> A BMI above 32 kg/m<sup>2</sup> has been associated with a doubled mortality rate among women over a 16-year period.<sup>[27]</sup> In the United States obesity is estimated to cause 111,909 to 365,000 deaths per year,<sup>[2][23]</sup> while 1 million (7.7%) of deaths in Europe are attributed to excess weight.<sup>[28][29]</sup> On average, obesity reduces life expectancy by

six to seven years,<sup>[2][30]</sup> a BMI of 35 kg/m<sup>2</sup> reduces life expectancy by two to four years,<sup>[24]</sup> while severe obesity (BMI > 40 kg/m<sup>2</sup>) reduces life expectancy by ten years.<sup>[24]</sup>

## Morbidity

Obesity increases the risk of many physical and mental conditions. These comorbidities are most commonly shown in metabolic syndrome,<sup>[2]</sup> a combination of medical disorders which includes: diabetes mellitus type 2, high blood pressure, high blood cholesterol, and high triglyceride levels.<sup>[31]</sup>

Complications are either directly caused by obesity or indirectly related through mechanisms sharing a common cause such as a poor diet or a sedentary lifestyle. The strength of the link between obesity and specific conditions varies. One of the strongest is the link with type 2 diabetes. Excess body fat underlies 64% of cases of diabetes in men and 77% of cases in women.<sup>[32]</sup>

Health consequences fall into two broad categories: those attributable to the effects of increased fat mass (such as osteoarthritis, obstructive sleep apnea, social stigmatization) and those due to the increased number of fat cells (diabetes, cancer, cardiovascular disease, non-alcoholic fatty liver disease).<sup>[2][33]</sup> Increases in body fat alter the body's response to insulin, potentially leading to insulin resistance. Increased fat also creates a proinflammatory state,<sup>[34][35]</sup> and a prothrombotic state.<sup>[33][36]</sup>

## Medical field

## Condition

### Cardiology

- ischemic heart disease:<sup>[37]</sup> angina and myocardial infarction
- congestive heart failure<sup>[2]</sup>
- high blood pressure<sup>[2]</sup>
- abnormal cholesterol levels<sup>[2]</sup>
- deep vein thrombosis and pulmonary embolism<sup>[38]</sup>

### Endocrinology and Reproductive medicine

- diabetes mellitus<sup>[2]</sup>
- polycystic ovarian syndrome<sup>[2]</sup>

- menstrual disorders<sup>[2]</sup>
  - infertility<sup>[2][41]</sup>
  - complications during pregnancy<sup>[2][41]</sup>
  - birth defects<sup>[2]</sup>
  - intrauterine fetal death<sup>[41]</sup>
- Neurology
- stroke<sup>[2]</sup>
  - meralgia paresthetica<sup>[43]</sup>
  - migraines<sup>[44]</sup>
  - carpal tunnel syndrome<sup>[45]</sup>
  - dementia<sup>[46]</sup>
  - idiopathic intracranial hypertension<sup>[47]</sup>
  - multiple sclerosis<sup>[48]</sup>
- Psychiatry
- depression in women<sup>[2]</sup>
  - social stigmatization<sup>[2]</sup>
- Rheumatology and Orthopedics
- gout<sup>[50]</sup>
  - poor mobility<sup>[51]</sup>
  - osteoarthritis<sup>[2]</sup>
  - low back pain<sup>[52]</sup>
- Dermatology
- stretch marks<sup>[39]</sup>
  - acanthosis nigricans<sup>[39]</sup>
  - lymphedema<sup>[39]</sup>
  - cellulitis<sup>[39]</sup>
  - hirsutism<sup>[39]</sup>
  - intertrigo<sup>[40]</sup>
- Gastrointestinal
- gastroesophageal reflux disease<sup>[2][42]</sup>
  - fatty liver disease<sup>[2]</sup>
  - cholelithiasis (gallstones)<sup>[2]</sup>
- Oncology<sup>[49]</sup>
- breast, ovarian
  - esophageal, colorectal

- liver, pancreatic
  - gallbladder, stomach
  - endometrial, cervical
  - prostate, kidney
  - non-Hodgkin's lymphoma, multiple myeloma
- Respirology
- obstructive sleep apnea<sup>[2][20]</sup>
  - obesity hypoventilation syndrome<sup>[2][20]</sup>
  - asthma<sup>[2][20]</sup>
  - increased complications during general anaesthesia<sup>[2][5]</sup>
- Urology and Nephrology
- erectile dysfunction<sup>[53]</sup>
  - urinary incontinence<sup>[54]</sup>
  - chronic renal failure<sup>[55]</sup>
  - hypogonadism<sup>[56]</sup>
  - buried penis<sup>[57]</sup>

### Other illnesses

Certain physical and mental illnesses and the pharmaceutical substances used to treat them can increase risk of obesity. Medical illnesses that increase obesity risk include several rare genetic syndromes (listed above) as well as some congenital or acquired conditions: hypothyroidism, Cushing's syndrome, growth hormone deficiency, and the eating disorders: binge eating disorder and night eating syndrome.<sup>[2]</sup> However, obesity is not regarded as a psychiatric disorder, and therefore is not listed in the DSM-IVR as a psychiatric illness. The risk of overweight and obesity is higher in patients with psychiatric disorders than in persons without psychiatric disorders.

Certain medications may cause weight gain or changes in body composition; these include insulin, sulfonylureas, thiazolidinediones, atypical antipsychotics, antidepressants, steroids, certain anticonvulsants (phenytoin and valproate), pizotifen, and some forms of hormonal contraception.<sup>[2]</sup>

**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
<b>VITAMINS</b>		
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
<b>MINERALS</b>		
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



## Causes

At an individual level, a combination of excessive food energy intake and a lack of physical activity is thought to explain most cases of obesity. A limited number of cases are due primarily to genetics, medical reasons, or psychiatric illness. In contrast, increasing rates of obesity at a societal level are felt to be due to an easily accessible and palatable diet, increased reliance on cars, and mechanized manufacturing.

A 2006 review identified ten other possible contributors to the recent increase of obesity: (1) insufficient sleep, (2) endocrine disruptors (environmental pollutants that interfere with lipid metabolism), (3) decreased variability in ambient temperature, (4) decreased rates of smoking, because smoking suppresses appetite, (5) increased use of medications that can cause weight gain (e.g., atypical antipsychotics), (6) proportional increases in ethnic and age groups that tend to be heavier, (7) pregnancy at a later age (which may cause susceptibility to obesity in children), (8) epigenetic risk factors passed on generationally, (9) natural selection for higher BMI, and (10) assortative mating leading to increased concentration of obesity risk factors (this would increase the number of obese people by increasing population variance in weight).

## Management of Obesity with Nutrease powder

The main treatment for obesity consists of dieting and physical exercise. The Diet Management Program with NUTREASE POWDER, The Nature's blend of protein, Fibers, plants or plant extracts (phytochemicals) has been found successful in controlling human appetite and body weight.

### 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,  $\beta$ -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.

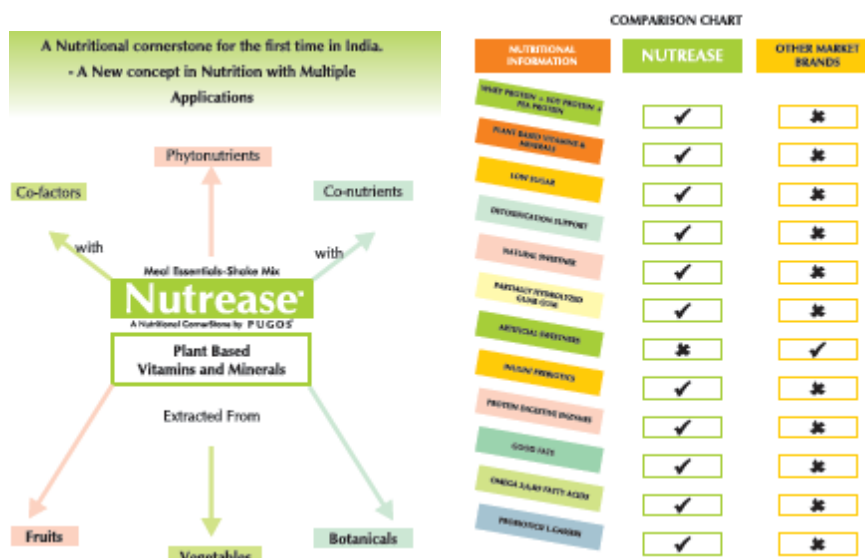
## MECHANISM OF ACTION OF NUTREASE POWDER

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 action and thus influence carbohydrate,



lipid and protein metabolism. Targeted botanicals and antioxidants like curcuminoids, sulforaphaneglucosinolate 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 maintains 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 EACHINGREDIENTS OF NUTREASE POWDER



**NUTREASE**  
Advantage

## 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



**Nutrese contains plant based broad spectrum  
Vitamins & Minerals which includes a diverse mixture of  
substances including dozens of closely related  
Vitamins 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.



**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 improves 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.

## 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.



## 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.





## 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.



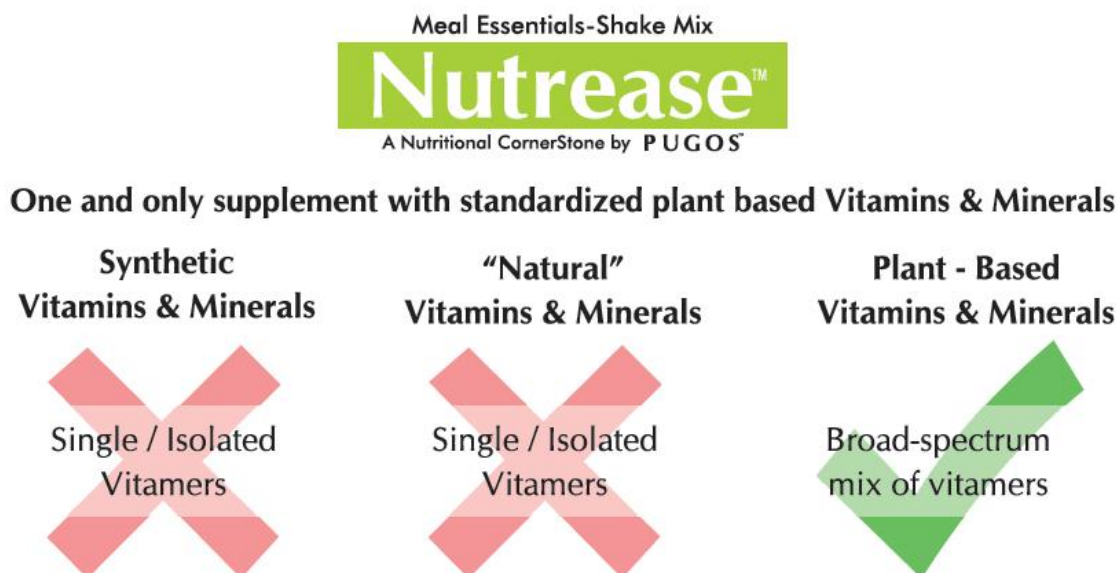


Figure 1. Most “natural” vitamin supplements are chemically stripped down to a single vitamin, which are more closely related to synthetic vitamins than true plant-based vitamins.

#### 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 co-nutrients.
- ▶ 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

**Usage:** As a food supplement. It is a combination of Natural vitamins and minerals Natural Antioxidant Phyto-Nutrients in human appetite and body weight

**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 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.

## SUMMARY & CONCLUSION

Obesity is most commonly caused by a combination of excessive food energy intake, lack of physical activity, and genetic susceptibility. Dieting and physical exercise are the mainstays of treatment for obesity. Body weight maintenance can be achieved through manipulation of energy expenditure (EE, mainly heat production also known as thermogenesis), appetite suppression/satiety enhancement, and fat and glucose absorption blocking. Phytochemicals found in Nutrease powder could alter appetite beyond the effects expected by normal nutrient loads.

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