

IT'S YOUR TIME TO SHINE.

CHAPTER 01: PRODUCT INTRODUCTION



LEMONBOTTLE

LEMONBOTTLE AMPOULE SOLUTION FOR FACE & BODY



NEW LIPOLYSIS SOLUTION!

IT IS A HIGH-CONCENTRATION PREMIUM LEMONBOTTLE SOLUTION
THAT COMBINES RIBOFLAVIN(VITAMIN B2) AND EXCELLENT
INGREDIENTS FOR FAT DECOMPOSITION TO INCREASE METABOLISM OF
FAT CELLS AND ACCELERATE IT. LEMONBOTTLE IS A HIGH-QUALITY
PRODUCT THAT IS DIFFERENT FROM THE PREVIOUS ONE.





CHAPTER 01: PRODUCT INTRODUCTION



CHAPTER 01: PRODUCT INTRODUCTION







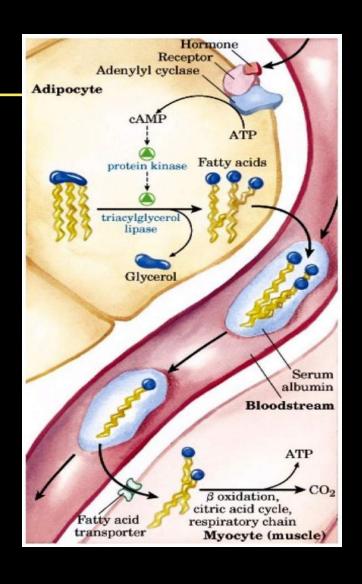
HOW LEMONBOTTLE TREATMENT WORKS

LECITHIN
RIBOFLAVIN
BROMELAIN

VITAMIN B2 INDUCES ACTIVATION OF FAT METABOLISM

2 LECITHIN DESTROYS AND TRANSPORTS UNNECESSARY FAT CELLS

BROMELAIN HELPS TO BREAK DOWN FAT AND REMOVE INFLAMMATION

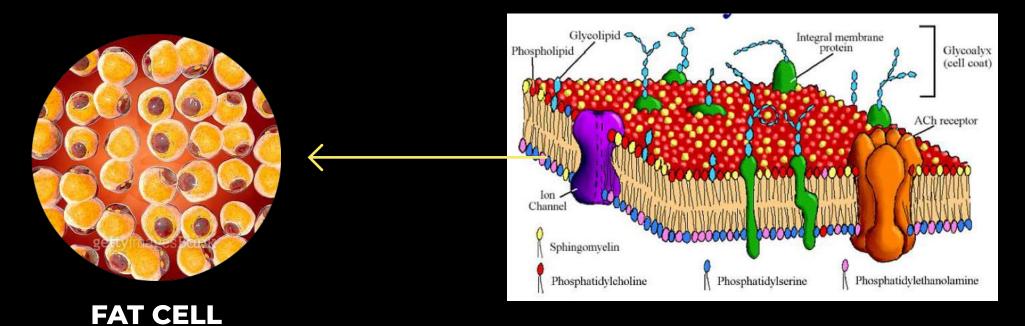


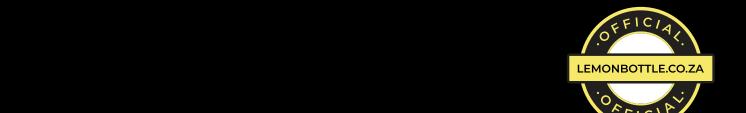


BROMELAIN & LECITHIN DUAL ACTION

- LECITHIN
- FAT LIPOLYSIS
- BROMELAIN
- PROTEIN LYSIS

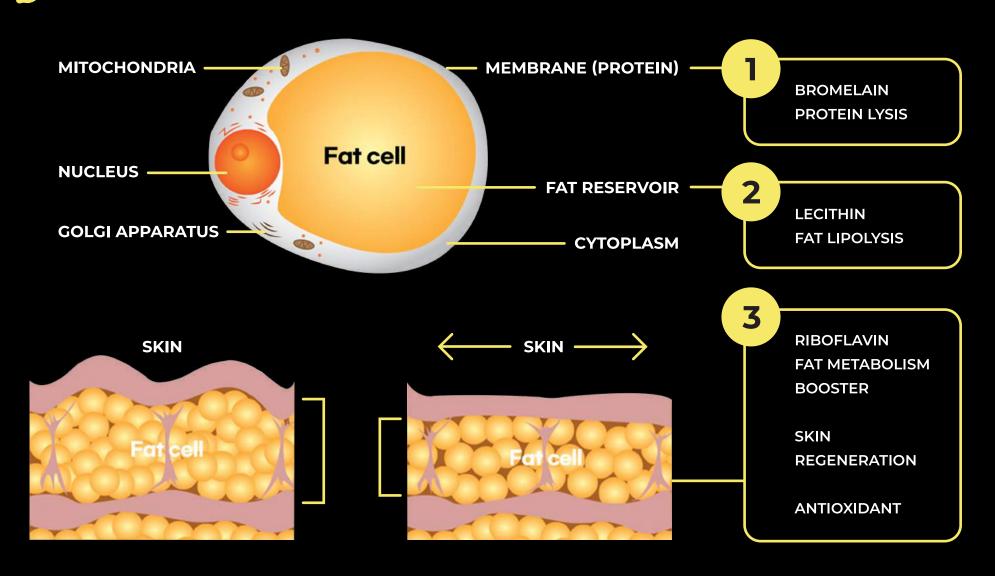
FAT CELL MEMBRANE





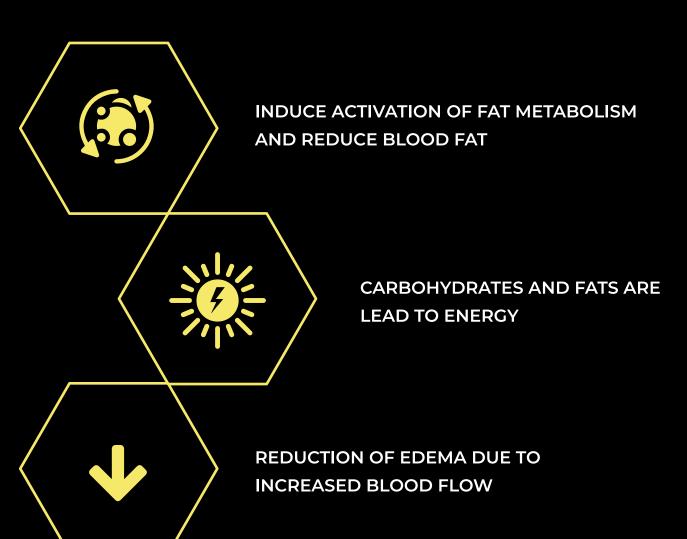


BROMELAIN & LECITHIN &RIBOFLAVIN TRIPLE EFFECT





RIBOFLAVIN(VITAMIN B2)









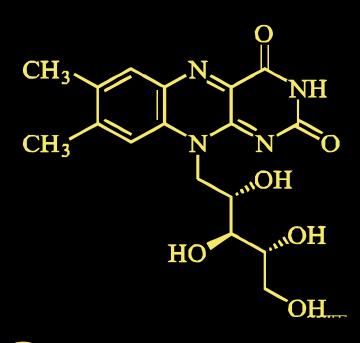
RIBOFLAVIN(VITAMIN B2)

RIBOFLAVIN - VITAMIN B2

"VITAMIN B2, OR RIBOFLAVIN, IS NATURALLY PRESENT IN FOODS, ADDED TO FOODS, AND AVAILABLE AS A SUPPLEMENT. BACTERIA IN THE GUT CAN PRODUCE SMALL AMOUNTS OF RIBOFLAVIN, BUT NOT ENOUGH TO MEET DIETARY NEEDS. RIBOVLAVIN IS A KEY COMPONENT OF COENZYMES INVOLVED WITH THE GROWTH OF CELLS, ENERGY PRODUCTION, AND THE BREAKDOWN OF FATS, STEROIDS AND MEDICATIONS. MOST RIBOFLAVIN IS USED IMMEDIATELY AND NOT STORED IN THE BODY, SO EXCESS AMOUNTS ARE EXCRETED IN THE URINE. AN EXCESS OF DIETARY RIBOFLAVIN, USUALLY FROM SUPPLEMENTS, CAN CAUSE URINE TO BECOME BRIGHT YELLOW."

RIBOFLAVIN, A WATER-SOLUBLE VITAMIN, PLAYS A ROLE IN TURNING CARBOHYDRATE PROTEIN FAT INTO ENERGY IN THE BODY AND CANNOT STORE MUCH OF IT.

VITAMIN B2 IS INVOLVED IN THE OXIDATION OF FAT AND HELPS FAT METABOLISM BY PROMOTING FAT BURNING



WHAT IS FAT METABOLISM?

FAT METABOLISM REFERS TO THE
REACTION OF SYNTHESIS AND
DECOMPOSITION IN VIVO, ITS ACTIVATION
HELPS TO BREAK DOWN FAT IN THE
BODY AND ENABLES MORE EFFECTIVE
LIPOLYSIS.

RIBOFLAVIN(VITAMIN B2)

612 Chapter 37

37.1.1 Riboflavin Metabolism

Riboflavin needs to be present in the human typical diet, as animals, unlike many plants, fungi and bacteria, are unable to synthesize this molecule. Dietary intake of this vitamin includes free riboflavin and also its protein bound form, as FAD and FMN in flavoproteins (Figure 37.1A). In the latter case, flavins need to be first released from carrier proteins during digestion and then hydrolysed to riboflavin by alkaline phosphatases and FMN/FAD pyrophosphatase in order to be absorbed at the small intestine.

Apart from dietary intake, riboflavin is also obtained from endogenous synthesis by microflora in the large intestine and is subsequently absorbed. Inside the cell, FMN is formed from vitamin B2 *via* adenosine triphosphate (ATP) phosphorylation and a flavokinase. FMN can be subsequently converted to FAD through a FAD synthetase also in the presence of ATP (Figure 37.1B).

IT HELPS WITH ATHEROSCLEROSIS AND OBESITY BY REDUCING LIPIDS PEROXIDE, TRIGLYCERIDES AND CHOLESTEROL BY LEADING TO REACTIONS OF OTHER ENZYMES TO TREAT OBESITY.

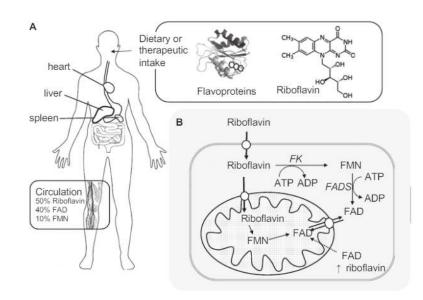


Figure 37.1 Riboflavin metabolism and cellular processing pathways. (A) Riboflavin and flavin intake is made *via* the diet, either in riboflavin-rich aliments or flavoproteins. In the latter, digestion in the stomach releases FAD and

IT ACCELERATES THE ACTIVATION OF FAT METABOLISM BY QUICKLY INDUCING CARBOHYDRATES, PROTEIN, FAT AND PROTEINS TO ENERGY. IT ACTS AS A CATALYST AND IS INVOLVED IN LIPOLYSIS AS A COENZYME OF VARIOUS OXIDATION AND REDUCTION REACTIONS WITHIN THE TISSUE.

BROMELAIN ANANAS SATIVUS (PINEAPPLE)



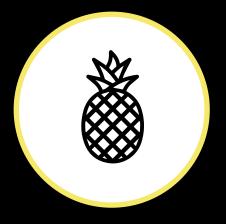
BROMELAIN IS A POWERFUL DIGESTIVE ENZYME COMMONLY FOUND AND EXTRACTED FROM PINEAPPLES' FRUITS, LEAVES AND STEMS.

ALL CRUDE PAPAYA LATEX
REPRESENTS PROTEOLYSIS,
LIPOLYSIS AND
INTERESTERIFICATION ACTIVITIES

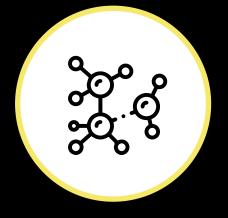
BROMELAIN PLAYS A ROLE IN MANY PHYSIOLOGICAL PROCESSES AND CAN ALSO AFFECT THE DISEASE TREATMENT PROCESS.



BROMELAIN ANANAS SATIVUS (PINEAPPLE)



PROTEASE IN PINEAPPLE



LIPOLYSIS EFFECT



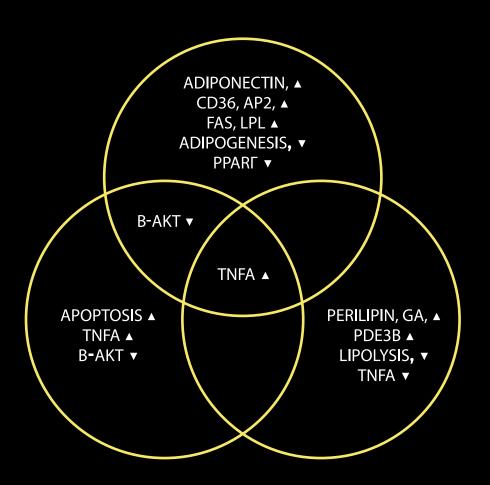
INFLAMMATION
TREATMENT AND
WOUND RECOVERY



EDEMA
REDUCTION, PAIN
REDUCTION



INHIBITION AND DECOMPOSITION OF LIPOGENESIS



BROMELAIN HELPS WITH WEIGHT LOSS DUE TO ITS EFFECTS ON FAT

EFFECTS ON FAT (ADIPOSE) TISSUE. IN RAT CELL CULTURES, STEM BROMELAIN ADMINISTRATION INHIBITED THE FORMATION (DIFFERENTIATION) OF FAT CELLS. IT DOES THIS BY INCREASING GENES (C/EBPA AND PPARY) THAT ARE NEEDED FOR FAT CELL FORMATION. MOREOVER, IT BLOCKED AKT/MTOR SIGNALING (TRANSMISSION) AND INCREASED TNF-A LEVELS IN MATURE FAT CELLS. THIS CAUSED THE FAT CELLS TO SELF-DESTRUCT. ADDITIONALLY, TNF-A INDUCES THE BREAKDOWN OF FATS (LIPOLYSIS). ALL OF THESE FACTORS COMBINED TOGETHER HELP PREVENT AND ADDRESS OBESITY."

"BROMELAIN HELPS WITH WEIGHT LOSS DUE TO ITS

HOW BROMELAIN HELPS WITH WEIGHT LOSS BY INCREASING TNF-ALPHA SOURCE



EFFECT OF BROMELAIN

Inhibition of Adipogenesis and Induction of Apoptosis and Lipolysis by Stem Bromelain in 3T3-L1 Adipocytes

Sandeep Dave, Naval Jit Kaur, Ravikanth Nanduri, H. Kitdorlang Dkhar, Ashwani Kumar, Pawan Gupta*

Institute of Microbial Technology (CSIR), Chandigarh, India

Abstract

The phytotherapeutic protein stem bromelain (SBM) is used as an anti-obesity alternative medicine. We show at the cellular level that SBM irreversibly inhibits 3T3-L1 adipocyte differentiation by reducing adipogenic gene expression and induces apoptosis and lipolysis in mature adipocytes. At the molecular level, SBM suppressed adipogenesis by downregulating C/EBP α and PPAR γ independent of C/EBP β gene expression. Moreover, mRNA levels of adipocyte fatty acid-binding protein (ap2), fatty acid synthase (FAS), lipoprotein lipase (LPL), CD36, and acetyl-CoA carboxylase (ACC) were also downregulated by SBM. Additionally, SBM reduced adiponectin expression and secretion. SBM's ability to repress PPAR γ expression seems to stem from its ability to inhibit Akt and augment the TNF α pathway. The Akt-TSC2-mTORC1 pathway has recently been described for PPAR γ expression in adipocytes. In our experiments, TNF α upregulation compromised cell viability of mature adipocytes (via apoptosis) and induced lipolysis. Lipolytic response was evident by downregulation of anti-lipolytic genes perilipin, phosphodiestersae-3B (PDE3B), and GTP binding protein $G_i\alpha_1$, as well as sustained expression of hormone sensitive lipase (HSL). These data indicate that SBM, together with all-trans retinoic-acid (atRA), may be a potent modulator of obesity by repressing the PPAR γ -regulated adipogenesis pathway at all stages and by augmenting TNF α -induced lipolysis and apoptosis in mature adipocytes.

THE PHYTOTHERAPEUTIC PROTEIN STEM BROMELAIN IS USED AS AN ANTI-OBESITY ALTERNATIVE MEDICINE. AND IT INDUCES APOPTOSIS AND LIPOLYSIS IN MATURE ADIPOCYTES.

BROMELAIN MAYBE A POTENT MODULATOR OF OBESITY.



The consumption of a high-fat diet for 24 weeks led to an increase in the mice in all groups.



As the treatment began, the weight of the mice in the untreated group continues to increase, while weight loss reduction was noticed in both pineapple vinegar treatment groups.

3. Results

3.1. Pineapple Vinegar Reduces Bodyweight

Figure 1 shows that the consumption of a high-fat diet for 24 weeks led to an increase in the bodyweight of mice in all groups. As the treatment began, we can see that the weight of the mice in the untreated group continues to increase, while weight loss reduction was noticed in both pineapple vinegar treatment groups. The posttreatment assays revealed the significant (p < 0.05) reduction in the percentage of gonadal adipose tissue over the bodyweight was recorded in the mice of high-concentration pineapple vinegar group as compared to the untreated group (Table 2).

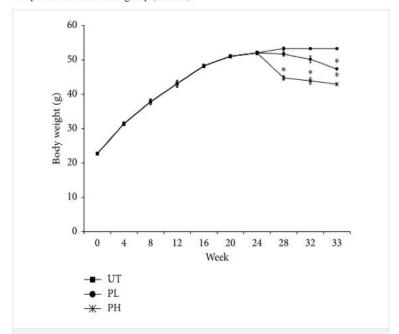


Figure 1



Bodyweight measurement (week 0-week 33) of untreated (UT), 0.08 mL/kg BW pineapple vinegar (PL), and 1 mL/kg BW pineapple vinegar (PH). The data presented are representative of the average biological replicate of mice from the same treatment group.



BROMELAIN ANTI-INFLAMMATORY

BROMELAIN DECREASES THE MAJORITY OF PRO-INFLAMMATORY MEDIATORS AND IS A POWERFUL ANTI-INFLAMMATORY AGENT. CYCLOOXYGENASE-2 (COX-2) IS A MAJOR CONTRIBUTOR TO INFLAMMATION. IT HELPS WITH THE SYNTHESIS OF PROSTAGLANDIN E2 (PGE-2), WHICH IS A PRO-INFLAMMATORY FAT (LIPID). PGE-2 ALSO SUPPRESSES THE IMMUNE SYSTEM AND PROMOTES TUMOR PROGRESSION.

BROMELAIN REDUCES COX-2 AND PGE-2 LEVELS IN MOUSE AND HUMAN CELL CULTURES.

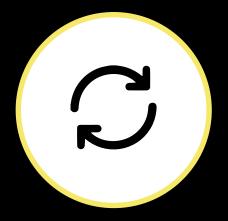
WHEN INFLAMMATION CAUSES THE OVERPRODUCTION OF PROINFLAMMATORY CYTOKINES, BROMELAIN REDUCES IL, 1B, 1L-6 SECRETION. FOR EXAMPLE, BROMELAIN REDUCES IFN-Y AND TNF-A PRODUCTION IN INFLAMMATORY BOWEL DISEASE (IBD).

BROMELAIN ALSO LOWERS THE PRODUCTION OF TGF-B, ANOTHER MAJOR CONTRIBUTOR OF INFLAMMATION.

IN MOUSE CELL CULTURES, THE PROTEASES IN BROMELAIN INHIBITED ERK-2 TRANSMISSION. THIS INHIBITION BLOCKS CYTOKINE PRODUCTION AND HELPS PREVENT INFLAMMATION."

PROTEASE CONTAINED IN BROMELAIN INHIBITS ERK-2 PROPAGATION, HELPING TO BLOCK CYTOKINE PRODUCTION AND PREVENT INFLAMMATION.

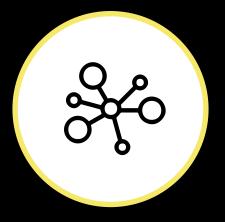




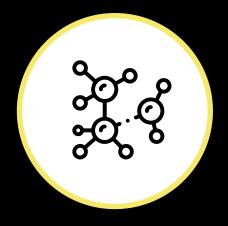
LIPASE (LIPOLYTIC ENZYME) ACTIVITY INCREASE (STIMULATION OF LIPASE ACTIVITY)



TRIGLYCERIDE
DECOMPOSITION
AND TRANSPORT IN
FAT CELL
(EMULSIFICATION
AND TRANSPORT
OF TRIGLYCERIDES)

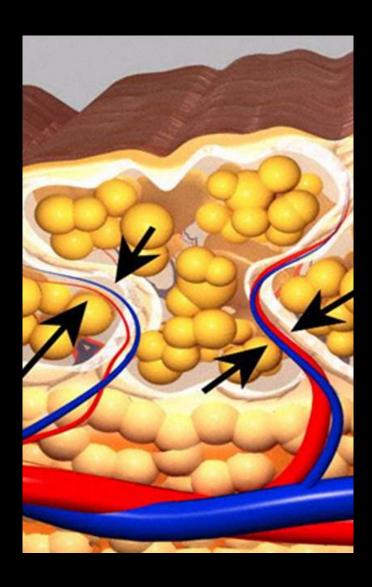


FAT CELL WALL
DECOMPOSITION
(DETERGENT
ACTION)



DEGRADATION OF BAD
CHOLESTEROL IN THE
BLOOD SUCH AS
WASTE AND NEUTRAL
FAT IN THE BLOOD
VESSELS (ELIMINATE
UNNECESSARY
ACCUMULATION ON
FAT -> OBESITY
PREVENTION EFFECT)

WHAT IS LECITHIN?



LECITHIN IS A GENERIC TERM TO DESIGNATE ANY GROUP OF YELLOW-BROWNISH FATTY SUBSTANCES OCCURRING IN ANIMAL AND PLANT TISSUES, WHICH ARE AMPHIPHILIC - THEY ATTRACT BOTH WATER AND FATTY SUBSTANCES (AND SO ARE BOTH HYDROPHILIC AND LIPOPHILIC).

IT IS USUALLY AVAILABLE FROM SOURCES SUCH AS SOYBEANS, EGGS, MILK, MARINE SOURCES, RAPESEED, COTTONSEED AND SUNFLOWER. IT HAS LOW SOLUBILITY IN WATER, BUT IS AN EXCELLENT EMULSIFIER. IN AQUEOUS SOLUTION, ITS PHOSPHOLIPIDS CAN FORM EITHER LIPOSOMES, BILAYER SHEETS, MICELLES, OR LAMELLAR STRUCTURES, DEPENDING ON HYDRATION AND TEMPERATURE.

THIS RESULTS IN A TYPE OF SURFACTANT THAT USUALLY IS CLASSIFIED AS AMPHIPATHIC. LECITHIN IS USED TO TREAT LIVER AILMENTS AND HYPERCHOLESTEROLEMIA. THE MECHANISM APPEARS TO BE ENHANCEMENT OF CHOLESTEROL METABOLISM IN THE DIGESTIVE SYSTEM.

LECITHIN POSSESS BENEFICIAL PROPERTIES IN REDUCING CHOLESTEROL LEVELS AND CONTROLLING OR PREVENTING ATHEROSCLEROSIS.



EFFECT OF LECITHIN

THE EFFECT OF LECITHIN ON INTESTINAL CHOLESTEROL UPTAKE BY RAT INTESTINE IN VITRO

By ALFRED J. RAMPONE

From the Department of Physiology, University of Oregon Medical School, Portland, Oregon 97201, U.S.A.

(Received 25 September 1972)

SUMMARY

- 1. Sacs 20 cm long were obtained from the upper half of the small intestine of bile fistula rats (bile duct cannulated 48 hours previously). The sacs were everted, filled with oxygenated phosphate buffer and incubated 1 hr at 37°C in 25 ml. of a buffered micellar solution of oleic acid (0.6 mm), mono-olein (0.3 mm), sodium taurocholate (4.8 mm) and 3H-labelled cholesterol (0.15 mm) plus glucose (28 mm).
- After incubation the amount of [3H]cholesterol taken up by the mucosal tissue was measured. It averaged 200 n-mole/hr.g tissue wet wt. ±6 (s.e.).
- 3. Adding 3 ml. whole rate bile with other factors unchanged caused

m rat liver tissue, and from egg ake. A significant response was entration 0.13 mm) and a near ration 0.80 mm). 10 mg lecithin ent to that obtained with 3 ml.

REDUCTION IN CHOLESTEROL PERMEABILITY BY LECITHIN

- J. PHYGIOL. (1973), 229, PP. 505-514

whole bile.

- Lecithin is an active component of whole bile causing reduced intestinal cholesterol uptake from micelles.
- The decreased uptake of cholesterol in the presence of lecithin may have been the result of expansion of the cholesterol-containing micelles with consequent reduction in cholesterol permeability.

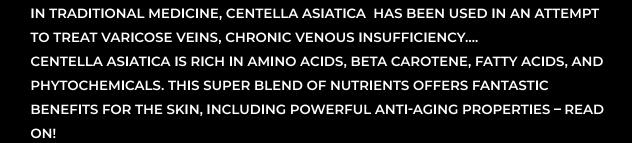






EFFECT OF LECITHIN

CENTELLA ASIATICA, COMMONLY KNOWN AS CENTELLA, ASIATIC PENNYWORT OR INDIAN PENNYWORT OR GOTU KOLA, IS A HERBACEOUS, FROST-TENDER PERENNIAL PLANT IN THE FLOWERING PLANT FAMILY APIACEAE, SUBFAMILY MACKINLAYOIDEAE. IT IS NATIVE TO WETLANDS IN ASIA. IT IS USED AS A CULINARY VEGETABLE AND AS MEDICINAL HERB.



GOTU KOLA IMPROVES CIRCULATION AS WELL AS THE SYNTHESIS OF COLLAGEN AND SKIN TISSUE. COLLAGEN IS ABSOLUTELY SSENTIAL FOR MAINTAINING A TAUT AND YOUTHFUL COMPLEXION. THE NATURAL COLLAGEN WE ARE BORN WITH DIMINISHES AS WE AGE (AT A RATE OF ABOUT 1% PER YEAR). BY INCORPORATING THE BENEFITS OF CENTELLA ASIATICA INTO YOUR DAILY SKINCARE REGIMEN, YOU'LL BE SUPPORTING YOUR SKIN'S UNDERLYING STRUCTURE, THEREFORE FENDING OFF THE TELLTALE SIGNS OF AGING -WRINKLES AND LOSS OF FIRMNESS. CENTELLA ASIATICA IS ESPECIALLY BENEFICIAL FOR IMPROVING ELASTICITY – GOODBYE SAGGING SKIN.







WHAT IS CENTELLA ASIATICA?

Centella asiatica in cosmetology

Wiesława Bylka, Paulina Znajdek-Awiżeń, Elżbieta Studzińska-Sroka, Małgorzata Brzezińska

Department of Pharmacognosy, Poznan University of Medical Sciences, Poland Head: Prof. Irena Matlawska

Postep Derm Al

Centella asiatica known as Gotu Kola is a medicinal plant that has been used in folk medicine for as well as in scientifically oriented medicine. The active compounds include pentacyclic triterpene side, madecassoside, asiatic and madecassic acids. Centella asiatica is effective in improving treatmer hypertrophic wounds as well as burns, psoriasis and scleroderma. The mechanism of action involves last proliferation and increasing the synthesis of collagen and intracellular fibronectin content and ago, mayor

of the tensile strength of newly formed skin as well as inhibiting the inflammators keloids. Research results indicate that a can be

...IT CAN BE USED IN THE TREATMENT OF CELLULITE

- POSTEP.DERM.ALERGOL 2013;XXX, 1:46-49

Centella asiatica (C. asiatica) plays a key role in traditional Ayurvedic medicine, to

C. asiatica's ancient reputation earned its place in modern alternative medicine a number of clinical studies.

C. asiatica has many other practical uses because of its ability to improve circula varicose and spider veins. Also it is often used as an active ingredient in the cost The purpose of this study is to analyse the effect of obesity treatment on abdom

This research divided 20-30's women who have more than 30% higher percent b

Here we present that the group treated with C. asiatica extracts showed significan compositions and concentrations of triglyceride in blood in comparison with the

...IT COULD BE MORE HELPFUL TO PREVENTING OBESITY RELATED DISEASE

- JOURNAL OF THE KOREAN SOCIETY OF COSMETOLOGY 2010; 16(1): PP.169-175

The C. asiatica treatment has positive influence upon physical slimming, body circumrerence reduction and so or

These imply that if this ingredient is largely used for abdominal obesity management,

it could be more helpful to preventing obesity related

CHAPTER 04: PRODUCT R&D



CONCLUSION

BY CHANGING THE STORAGE FORM OF FAT COMPONENT AND INDUCING IT TO ENERGY SOURCE, IT REDUCES THE NUMBER AND SIZE OF FAT CELLS TO MAXIMIZE FAT REDUCTION.

DECREASES ADIPOCYTES AND PRODUCES COLLAGEN TO INCREASE SKIN ELASTICITY.

IT FACILITATES THE CIRCULATION OF THE LYMPHATIC FLUID AND CAN RAPIDLY RELEASE THE DEGRADED FAT CELLS, WHICH IS EFFECTIVE IN REDUCING EDEMA AND ELIMINATE CELLULITE.





CHAPTER 05: PRODUCT USE PRECAUTIONS



POST PROCEDURE CAUTION



INTAKE SUFFICIENT
WATER



NO LATE-NIGHT MEAL



DO LIGHT EXERCISE AND MASSAGE



FOR THE FIRST 2~3
DAYS, IT'S BETTER
TO USE HOT TOWEL
OR SAUNA



CAUTIONS

- AVOID THE AREA AROUND THE EYES
- THE AMPOULE SHOULD BE USED IMMEDIATELY
- STORE THE PRODUCT AT ROOM TEMPERATURE
- * THIS PRODUCT IS DISPOSABLE AND PROHIBITS REUSE.





CONTACT US

WWW.LEMONBOTTLE.CO.ZA

INFO@LEMONBOTTLE.CO.ZA

BLOEMFONTEIN BRANCH:

051 436 0494

087 286 6099

CAPE TOWN BRANCH:

072 592 5600

081 309 2517