CELLULYSE

Composition

Active Ingredients
Mannitol
4-(1-Pyrrolidinyl)-1-(2,4,6-trimethoxyphenyl)
1-butanone (PTMBP)
Sodium Metasilicate
Theophylline (1 mg/ml)
Tween 80 γ-cyclodextrine
Vitamin P

Amino Acids
L- Alanine
L- Arginine HCl
L- Asparagine H2O
L- Aspartic Acid
L- Cysteine HCl H2O
L- Glutamic Acid
L- Glutamine
Glycine
L- Histidine HCl H2O
L- Isoleucine
L- Leucine
L- Lysine HCl
L- Methionine
L- Phenylalanine (16.4 mg/l)
L- Proline
Pyruvic acid
L- Serine
L- Threonine
L- Tryptophan
L- Tyrosine 2Na 2H2O
L- Valine

Minerals
Ammonium Metavanadate
Ammonium Molybdate·4H2O
Calcium Chloride·2H2O
Cupric Sulfate·5H2O
Ferrous Sulfate·7H2O
Magnesium Sulfate
Manganese Sulfate
Nickel Chloride·6H2O
Potassium Chloride
Sodium Phosphate Dibasic
Sodium Chloride
Sodium Selenite (0.003 mg/l)
Zinc Sulfate·7H2O

Vitamins
Ascorbic acid (Vitamin C)
D-Biotin (Vitamin B8)
Choline Chloride
Cobalamine (Vitamin B12)
Folinic Acid·Ca
Myo-Inositol
Niacinamide (Vitamin B3)
D-Pantothenic Acid·Ca (Vitamin B5)
Pyridoxine·HCl (Vitamin B6)
Riboflavin
Thiamine·HCl (Vitamin B1)

Other components
Adenine·HCl
Benzyl Alcohol
D-Glucose
Phenol Red·Na
Procaine (0.5 mg/ml)
Putresine·2HCl
Safranin O
D-L-6,8-Thioctic Acid
Thymidine

Packaging

Box of 10 vials of 5.0 ml e.a.

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www.activecosmethics.com
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CELLULYSE

The treatment of reference for liposculpture of face & body

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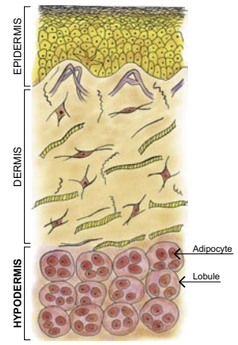
CELLULYSE

The treatment of reference for liposculpture of face & body

Better than phospatidylcholine, no side effect!

Where does cellulite come from?

Cellulite is the development of degraded fatty tissue that frequently contains water.
This disorder results from one or several factors such as poor arterial or venous circulation, hormonal disturbances and problems with lymphatic drainage.



Cellulite is due to the excessive storage of fat in the adipocytes. By becoming heavily laden with lipids, the adipocytes swell and become hypertrophic, sometimes to a high degree. The compression of the blood and lymph vessels by these fatty masses induces poor drainage of the water and stagnation of the toxins in the tissues.
The resulting edema and degeneration of the fibers of the connective tissue lead to the typical irregular stippled appearence of the skin known as “orange peel apperance”.

CELLULYSE has been especially designed to treat cellulite and for the liposculpture of face and body.

Indications

CELLULYSE enables treatment of the unsightly clusters of fat localised in areas that are not affected by dieting, such as the abdomen, thighs, hips, buttocks, knees, bags under the eyes and double chin.

Properties

CELLULYSE acts in 4 stages:

❶ *Reducing lipo-edemas*

The first step in efficiently treating cellulite consists in eliminating the excess water so as to reabsorb the edema and reduce swelling. **CELLULYSE contains mannitol which has a diuretic effect**. As a non-metabolizable carbohydrate, it is excreted via the renal glomeruli without being absorbed by the tubules. This necessarily results in the elimination of a certain amount of water. It is used here instead of certain vegetal extracts such as *Cynara scolymus* (artichoke) which is sometimes used in phytotherapy.

❷ *Restoring an efficient micro-circulation*

Cellulite is frequently associated with circulation problems.
The adipocytes, swollen by an excessive accumulation of fat exert pressure on the arterial, venous and lymphatic networks which surround them (***Fig.1***).

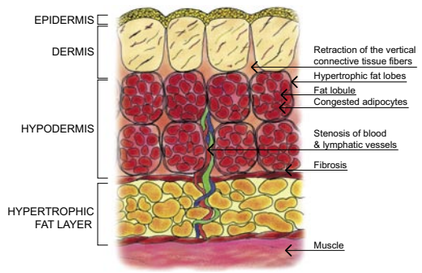


Fig.1: *Cellulite*

It is therefore essential to restore an efficient micro-circulation in order to re-establish the phenomena of tissue exchange (nutritional supply, excretion of waste substances, storage and release) which ensure good tissue function.
Thanks to the vasodilatory activity of PTMPB*, **also called buflomedil**, **CELLULYSE** helps to increase blood flow and therefore to irrigate and oxygenate the tissues. It restores an efficient functional micro-circulation by opening the spasmed pre-capillary sphincters at the expense of the arteriovenous shunts. Derivatives of the flavonosides such as **rutin** offer a particularly beneficial vasculo-protective effect in this respect. They increase the resistance of the capillaries directly by stabilizing the vascular basal membrane and indirectly by the uptake of free radicals. Thanks to its antioxidant properties, **vitamin C** is essential for neutralizing the effect of the free radicals generated in the newly o xygenated tissues (reperfusion syndrome).

** PTMPB : 4-(-1-Pyrrolidinyl)-1-(2,4,6-trimethoxyphenyl)-1-butanone*

❸ *Lipolysis*

Tween associated with γ-cyclodextrin forms an amphoteric complex which is both liposoluble and hydrosoluble. It is capable of bonding aqueous and lipidic phases which normally cannot be mixed. When carried to the adipocytes by interstitial liquids, it **lyzes the membrane by solubilizing the lipidic layer**. The lipidic droplets contained in the cytosol of these cells are then released into the intercellular space.

Like its analogues caffeine and aminophyllin, **theophyllin acts by inhibiting phosphodiesterase (PDE)**. This process maintains a high level of cyclic AMP, thus stimulating the natural lipolytic mechanisms of the adipocytes (***Fig.2***).

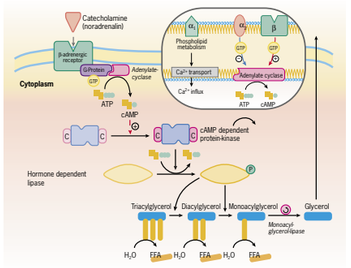


Fig.2 *: Regulation of fatty acid release from adipocyte*

Once released, the short-chain fatty acids pass into the circulation while the long-chain fatty acids bind to albumin. The free fatty acids may then be used as a source of energy by all the tissues except the brain and the erythrocytes. Their degradation is particularly intense in the liver if the serum concentration is high (***Fig.3***).
The remaining lipid complexes are placed in suspension by the Tween γ-cyclodextrin complex to form chylomicrons which are released into the circulation via the lymphatic system. Since they are small, they are processed by the liver, and the fenestrated capillaries allow them to leave their vascular bed and pass into Disse’s space.

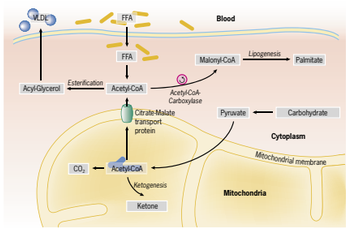
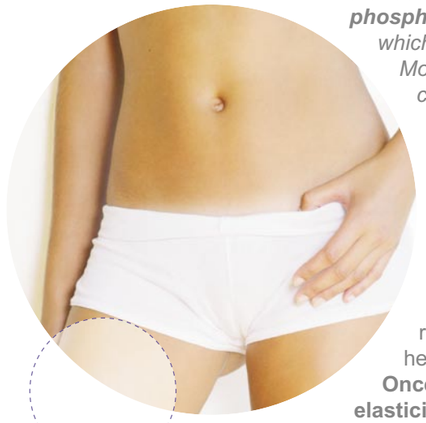


Fig.3 *: Regulation of fatty acid γ-oxidation and biosynthesis in liver cells*

*Preference was given to this complex over **phosphatidylcholine**, extracted from soybeans or eggs, which carries a risk of intolerances.*
*Moreover, **contrary to thiomucase**, it does not present any destructuring effect on the connective tissues responsible for excessive sagging of the skin.*



❹ *Restructuring and protecting the connective tissue*

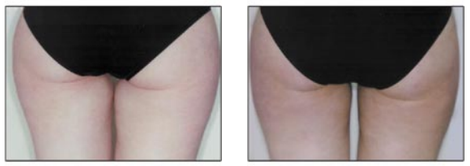
When efficient, the treatment of cellulite leads to a considerable decrease in the volume of fatty tissues. When fat has accumulated over a period of years, the distended connective tissue no longer possesses the elasticity required for recovering its initial tone.
By modifying both qualitatively and quantitatively the elastin, **silicium** stimulates the regeneration of connective tissue. In addition, it tends to form a tri-dimensional network, hence its value in structuring these tissues.
Once regenerated and restructured, the connective tissue recovers its tone and elasticity.

CELLULIFT, as a tensile treatment for toneless and/or ptosed tissues, is particularly recommended following a treatment with **CELLULYSE**.

Results observed

The results observed with **CELLULYSE** are spectacular:
a reduction of up to 15.5 cm on the abdomen and up to 5.5 cm around each thigh after just 2 months of treatment.
There is a distinct attenuation of the orange peel appearance and the skin is smooth.
Thanks to its concentrated formulation, the first effects can be seen as from the first session.

Before *After*



Before *After*