

MORO ORANGE VARIETY, THE NATURAL APPROACH TO WEIGHT CONTROL

MOROSIL™ is a standardized powder extract obtained only from the juice of a unique cultivar of Moro red oranges (*Citrus sinensis* (L.) Osbeck). "Moro" is the most pigmented blood orange.

Color of the orange flesh is an intense violet-red, at times almost black, due to the high content of anthocyanins.

COMPOSITION	MOROSIL™ % (W/W)
Anthocyanins (as cyanidin-3-glucoside)	0.8 - 0.9
Hydroxycinnamic acids (as caffeic, coumaric, sinapic, ferulic, cinnamic)	0.8 - 1.0
Flavanones (as hesperidin, narirutin)	2.0 - 2.2
Ascorbic acid	4.3 - 4.5

SUGGESTED DOSAGE: 400 MG/DAY



Moro Red Orange

Moro Red Orange is the most colorful of the blood oranges. The flavor is stronger and the aroma is intense. The 'Moro' variety is believed to have originated at the beginning of the 19th century in Sicily. The Phytocomplex contained in Moro juice, unlike other orange varieties, have been shown to possess an high content of anthocyanins with an important **activity against fat accumulation and obesity**.

Overweight and obesity are becoming huge public health problems worldwide. Globally, there has been an increased intake of energy-dense foods that are rich in fat and an increase in physical inactivity.

Overweight can increase the risk for a wide range of chronic diseases such as type-2 diabetes, hypertension and coronary heart disease with a reduced quality of life. The risk for these noncommunicable diseases increases with an increase of BMI (Body Mass Index) and unbalanced body composition. Several studies correlated obesity with high levels of lipid peroxidation and oxidative stress. Moreover, it has been demonstrated that pre-adipocyte proliferation and differentiation can be controlled by redox metabolism suggesting that ROS are involved in adipocyte differentiation.

Thanks to the synergistic mechanism related to the pool of **biophenols** contained in enriched blood orange extract, **MOROSIL™** may be used for weight control and, acting on fat accumulation, it can indirectly be used to reduce the risk of onset and chronicity of cardiovascular related problems.



REDUCES THE BODY WEIGHT



REDUCES BMI AND IMPROVE THE BODY COMPOSITION



REDUCES WAIST AND HIP CIRCUMFERENCE

WHAT IT DOES
ACTS ON ADIPOCYTES METABOLISM AND DIFFERENTIATION

It is able to modulate the adipogenesis through several key pathways in which redox homeostasis alteration is also involved together with the downregulation of adipocyte-specific and lipogenic gene transcription.

IN VITRO STUDIES

HELPS THE WEIGHT MANAGEMENT

It is able to reduce the body weight and the body mass index acting on waist and hip circumference in men and women.

2 CLINICAL TRIALS

BOOSTS THE RESULTS OF CALORIE RESTRICTION DIET AND EXERCISE

It is able to accelerate the reduction of body weight and body mass index acting on waist and hip circumference in men and women of Caucasian and Asian ethnicity. Moreover, it is able to improve the body composition (DEXA scan) by decreasing general fat mass and fat mass trunk.

1 CLINICAL TRIAL


LAST FINDINGS

The activity of **MOROSIL™** has been evaluated in a randomized, double-blind, placebo-controlled clinical trial carried out:

- on **102 volunteers** with a BMI between 25 and 30 kg/m²
- treated with **400 mg/day of MOROSIL™**
- for **12 weeks**

		3 MONTHS	6 MONTHS	
BODY WEIGHT	MOROSIL™	↓ -3,3%	↓ -4,2%	
	Placebo	↓ -2,1%	↓ -2,3%	
WAIST CIRCUMFERENCE	MOROSIL™	↓ -2,5%	↓ -3,6%	
	Placebo	↓ -2,3%	↓ -2%	
HIP CIRCUMFERENCE	MOROSIL™	↓ -2,1%	↓ -2,8%	
	Placebo	↓ -1,7%	↓ -1,9%	

The **MOROSIL™** supplementation lead to a change in the fat body composition: there was a statistically significant decrease in the abdominal, visceral and subcutaneous fat mass, while the lean mass was kept constant.