

# TENHO LIPEDEMA... E AGORA?

WEBINAR



## ALIMENTAÇÃO SAUDÁVEL OPÇÃO ALIMENTAR NO LIPEDEMA?



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“Notably, **there is no specific diet for lipedema.**

However, because insulin promotes lipogenesis and insulin resistance worsens edema formation, **a diet avoiding glycemic and insulin peaks and allowing adequate intervals between meals** (i.e., isoglycemic diet) may be desirable.

Weight loss should not be achieved at the expense of muscle mass.”

**Fonte:** Buso, G; Depairon, M; Tomson, D; Raffoul, W; Vettor, R; Mazzolai, L. **2019. Lipedema: A Call to Action!**

<https://doi.org/10.1002/oby.22597>

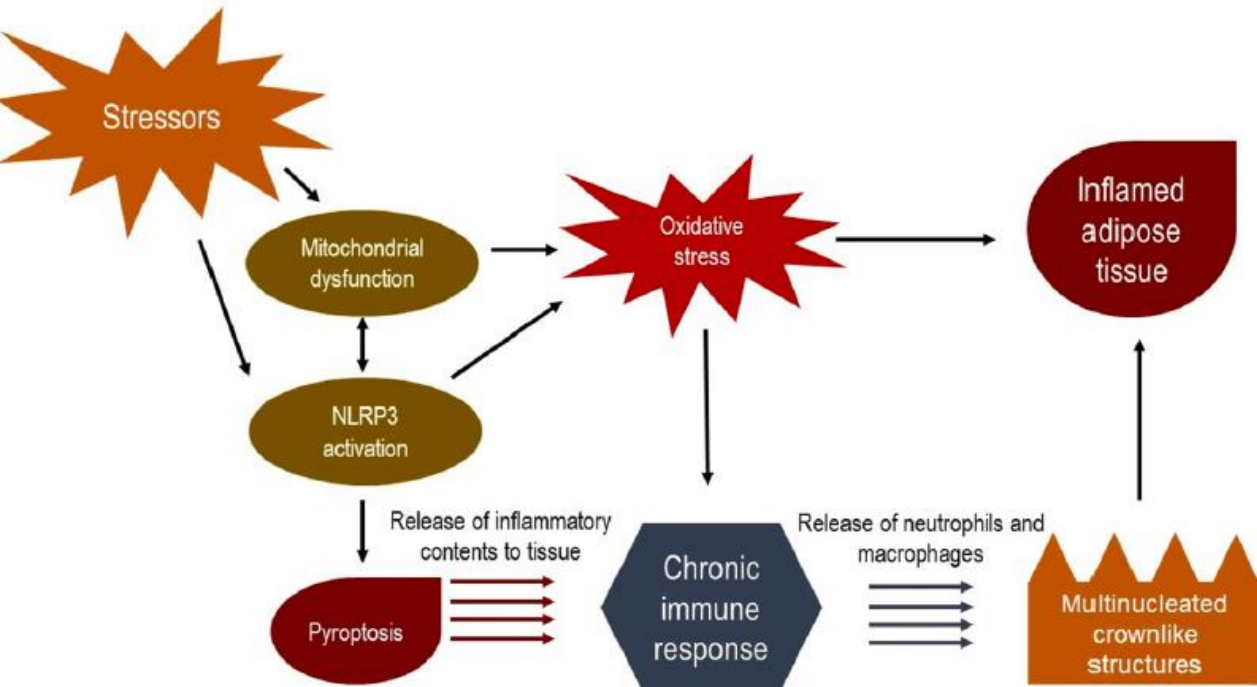


“Although fat caused by lipedema cannot be lost by just reducing calories and exercising, providers who treat lipedema typically advise daily light to moderate exercise **in combination with an anti-inflammatory diet.**”

**Fonte:** Buso, G; Depairon, M; Tomson, D; Raffoul, W; Vettor, R; Mazzolai, L. **2019. Lipedema: A Call to Action!**

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Lipedema adipose tissue (LAT) remodeling, inflammation and fibrosis. Endogenous stressors include excess glucose intake, ion flux (potassium [K<sup>+</sup>] and chlorine [Cl<sup>-</sup>] efflux, calcium [Ca<sup>+</sup>] and sodium [Na<sup>+</sup>]), mitochondrial release of reactive oxygen species (ROS) and oxidized mitochondrial deoxyribonucleic acid (DNA), excess extracellular adenosine triphosphate (ATP), oxidized low density lipoprotein (LDL), cholesterol and monosodium urate crystals, hyaluronic acid, adipose hypertrophy, hypoxia, necrosis, estrogen dysregulation. Multifactorial endogenous stressors trigger NLRP3 inflammasome activation that leads to pyroptosis in LAT. The release of inflammatory contents into LAT produces a chronic immune response that remains unresolved. The excessive release of neutrophils and macrophages produces irregularly sized multinucleated crown-like structures that contribute to chronic LAT remodeling, inflammation, and fibrosis.



## Dieta Cetogénica no Lipedema

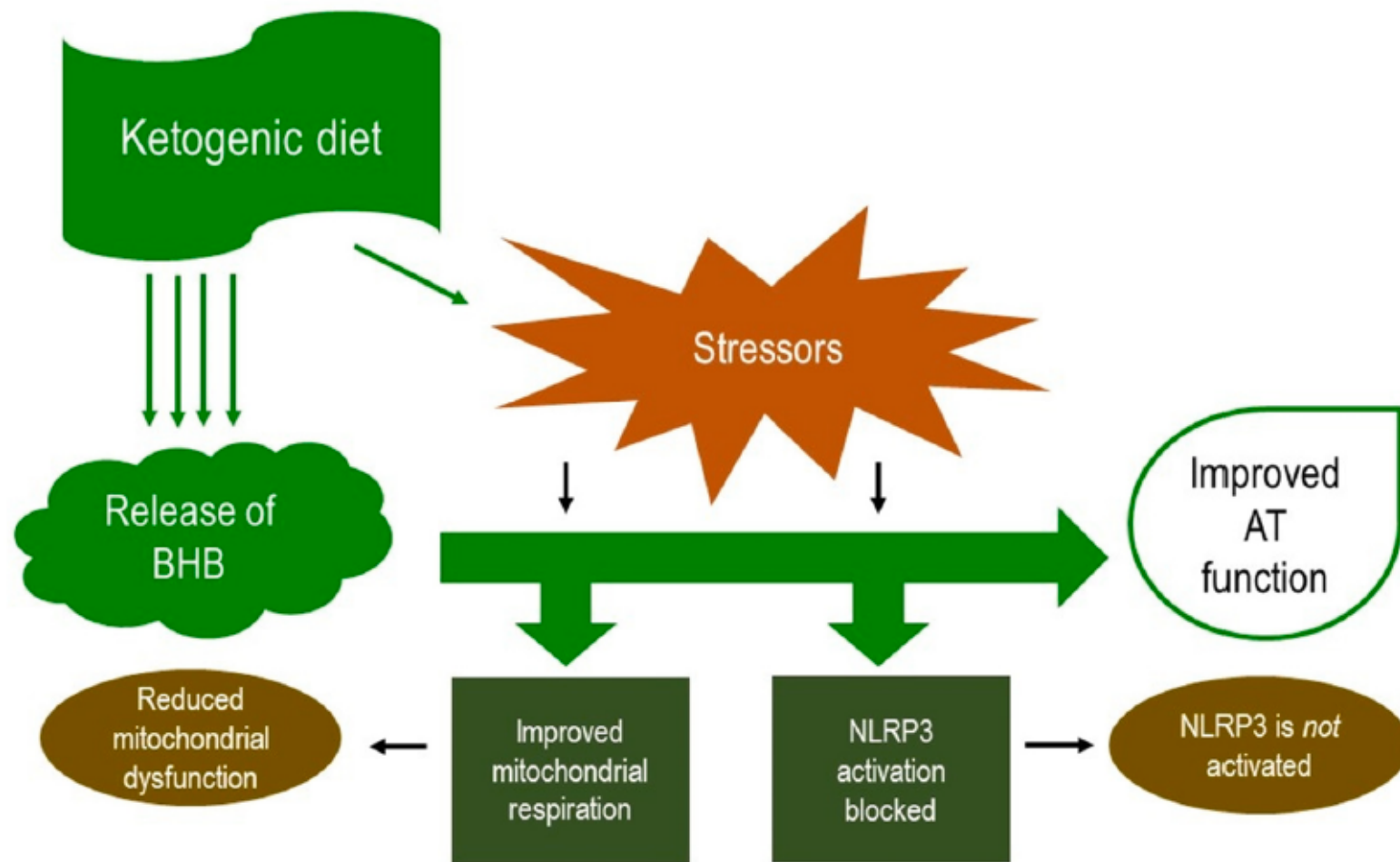


Fig. 6. How a ketogenic diet improves adipose tissue (AT) function. BHB = beta hydroxybutyrate. Stressors reduced include low or zero glucose intake, decreased adipocyte hypertrophy/hyperplasia/hypoxia/necrosis, inhibition of potassium (K<sup>+</sup>) efflux and reduced ion flux, reduced reactive oxygen species (ROS) and oxidized low density lipoprotein (LDL) improved resistance to oxidative stress and mitochondrial deoxyribonucleic acid (DNA) damage, and improved hormonal regulation. Ketones, such as BHB, are produced, and endogenous stressors are reduced with a ketogenic diet. BHB interrupts NLRP3 inflammasome activation and improves mitochondrial respiration leading to improved AT function.



## The ketogenic diet: Pros and cons

Blair O'Neill <sup>1</sup>, Paolo Raggi <sup>2</sup>

Affiliations + expand

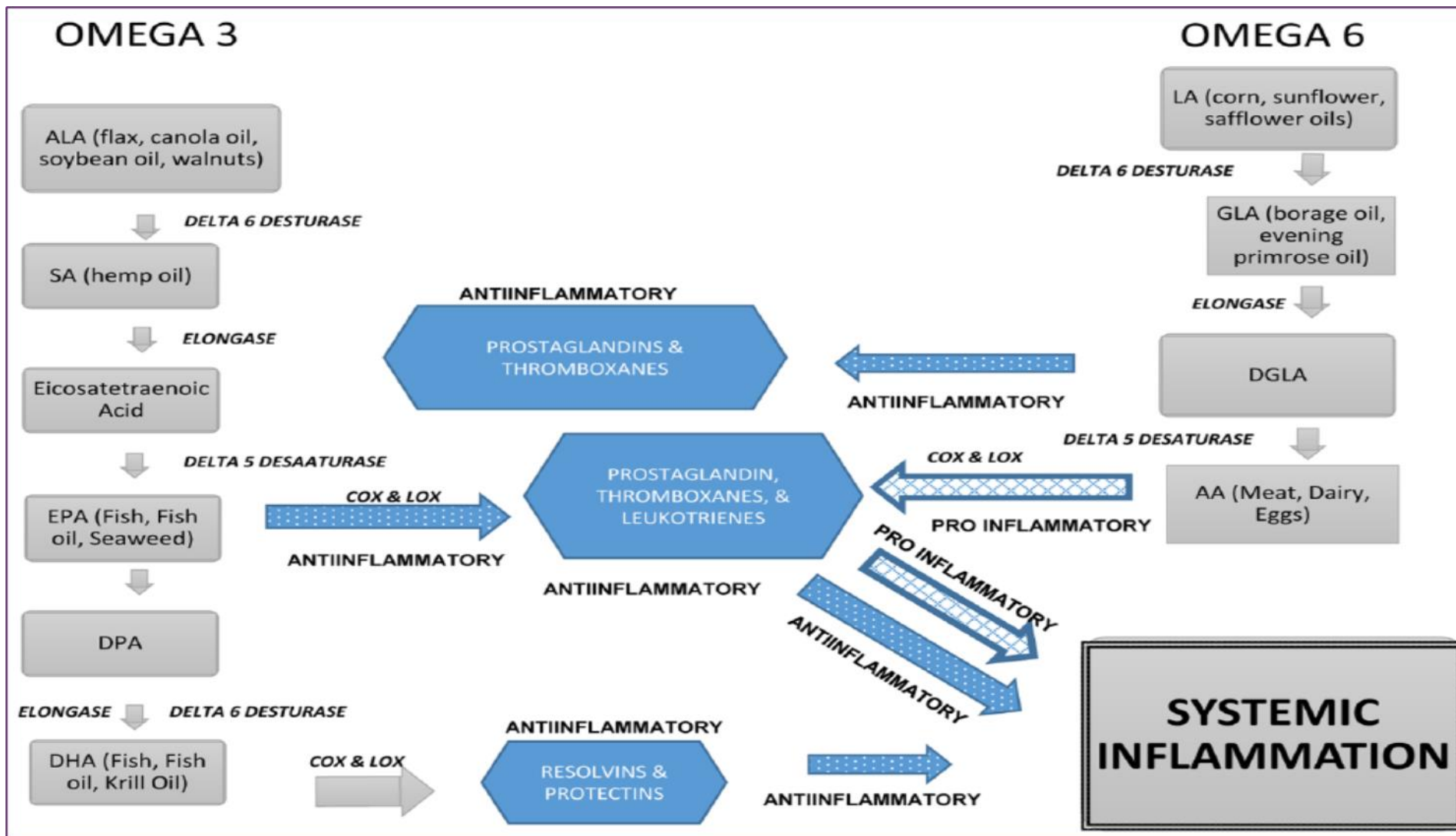
PMID: 31805451 DOI: 10.1016/j.atherosclerosis.2019.11.021

- Efeitos metabólicos a longo prazo
- Adesão e manutenção
- Tolerância individual
- Variabilidade da % de hidratos de carbono
- Acompanhamento especializado

### Abstract

Diets have been at the center of animated debates for decades and many claims have been made in one direction or the other by supporters of opposite camps, often with limited evidence. At times emphasis has been put on a single new aspect that the previous diets had overlooked and the new one was to embrace in order to improve weight loss and well-being. Unfortunately, very few randomized clinical trials involving diets have addressed the combined question of weight loss and cardiovascular outcomes. The recently introduced ketogenic diet requires a rigorous limitation of carbohydrates while allowing a liberal ingestion of fats (including saturated fats) and has generated a flurry of interest with many taking the pro position and as many taking the cons position. The ketogenic diet causes a rapid and sensible weight loss along with favourable biomarker changes, such as a reduction in serum hemoglobin A1c in patients with diabetes mellitus type 2. However, it also causes a substantial rise in low density lipoprotein cholesterol levels and many physicians are therefore hesitant to endorse it. In view of the popular uptake of the keto diet even among subjects not in need of weight loss, there is some preoccupation with the potential long-term consequences of a wide embrace of this diet by large segments of the population. On the contrary, numerous lines of evidence show that plant-based diets are associated with reduction in oncological and cardiovascular diseases and a prolonged life span. The debate reproduced in this article took place during a continuous medical education program between two cardiologists with largely differing views on the matter of effectiveness, sustainability, and safety of the ketogenic diet compared to alternative options.





## Dieta Anti - inflamatória

Table 1. Comparison of Diet Components.

Diet	Standard American Diet	Mediterranean Diet	Okinawan Diet	Anti-Inflammatory Diet
Vegetables and fruits	Fewer vegetables	High consumption of vegetables and fruits	High consumption of vegetables: orange-yellow root vegetables, leafy green vegetables	High consumption of vegetables: large diversity, including variety of colors to increase phytonutrients
Protein source	Red meat  Dairy	Fish  Legumes  Nuts	High consumption of legumes (soy) Small to moderate amounts of fish Less meat	Plant sources of protein: legumes, soy, nuts, and seeds More fatty fish and some lean animal protein
Carbohydrates	Refined carbohydrates; high-fructose corn syrup and added sugar Fewer whole grains	Whole grains	Small amounts of rice and noodles Less sugar and fewer refined grains	Whole grains in small amounts, high fiber, reduced refined carbohydrates
Dairy	High-fat dairy sources	Low-fat dairy, such as yogurt	Less dairy	
Fats	Solid added fats, such as butter and sour cream	Olive oil as source of added fat	Lower fat overall	Olive oil for added fat source
Other features	Soda and added-sugar beverages	Moderate red wine intake	Moderate alcohol intake, green tea intake; broth-based soups	Spices: turmeric, garlic, ginger, and other anti-inflammatory herbs and spices
Cultural	Eating on the run, overeating	Highly social and connected eating experiences	Low caloric diet; highly ritualistic culture	Mindful eating approach; quality over quantity





# Alimentação Saudável



**Completa**

**Equilibrada**

**Variada**



**Consumo de produtos frescos, sazonais e pouco processados e de ervas aromáticas condimentares**



**Fontes alimentares de fibra alimentar, vitaminas, minerais e de várias substâncias com potencial antioxidante e anti-inflamatório.**



## Pequeno Almoço



## Merenda Manhã



## Almoço



## Merenda Tarde



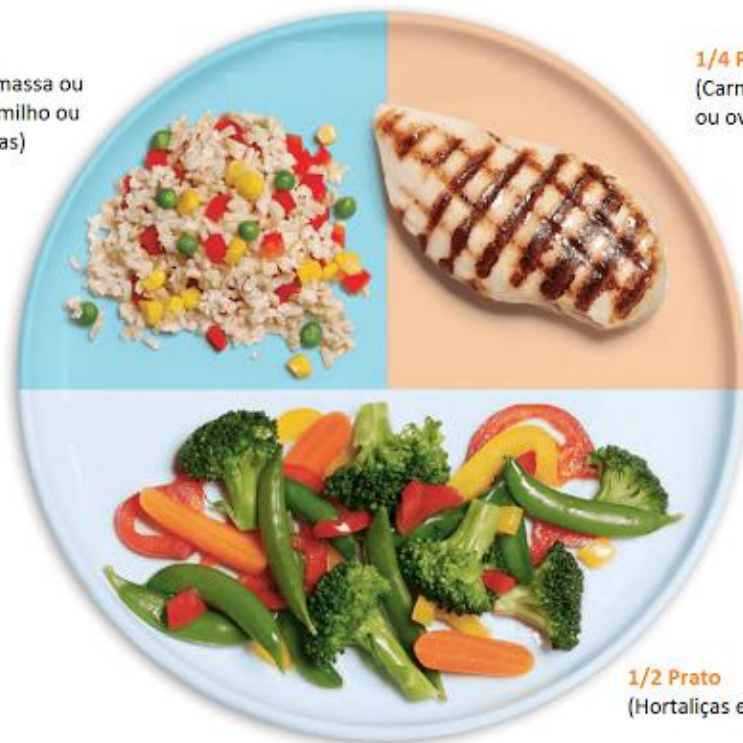
## Jantar



# Almoço e Jantar



**1/4 Prato**  
(Arroz ou massa ou  
batata ou milho ou  
leguminosas)



**1/4 Prato**  
(Carne ou peixe  
ou ovo ou tofu)

**1/2 Prato**  
(Hortaliças e/ou legumes)



# Potential Effects of a Modified Mediterranean Diet on Body Composition in Lipoedema

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PMID: 33504026 PMCID: PMC7911402 DOI: 10.3390/nu13020358

[Free PMC article](#)

## Abstract

Lipoedema is a subcutaneous adipose tissue disease characterized by the increase in the amount and structure of fat mass (FM) in specific areas, causing pain and discomfort. 95% of patients fail to lose weight in the lipoedema areas. The study was conducted to evaluate body composition and general health status modification in a group of lipoedema patients (LIPPY) and a control group (CTRL) after four weeks of a modified Mediterranean diet therapy (mMeD). A total of 29 subjects were included in the data analysis, divided in two groups: 14 LIPPY and 15 CTRL. After the mMeD, both groups significantly decreased their weight and body mass index; the CTRL also showed a reduction of all the circumferences and all FM's compartments. LIPPY showed a decrease of FM in upper and lower limbs. No significant differences in  $\Delta\%$  between the groups were observed for the lean mass (LM). In LIPPY, an increase in the patients' ability to perform various daily physical activities related to the loss of arms' and legs' fat was observed. According to the European Quality of Life scale, the possibility for LIPPY subjects to perform simple daily activities with less fatigue, pain and anxiety is highlighted. Further long-term studies are recommended to confirm the mMeD as a good strategy for Lipoedema treatment.

**Keywords:** Lipoedema; SAT diseases; antioxidant diet; body composition; nutrition.



RODA DA

# ALIMENTAÇÃO MEDITERRÂNICA

CULTURA, TRADIÇÃO E EQUILÍBRIO!



Escolha alimentos locais e da época



Valorize a Gastronomia saudável



Partilhe refeições - Partilhe tradições



Use ervas aromáticas



Lembre-se dos frutos gordos



Mexa-se - Divirta-se



Se está grávida ou a amamentar não beba  
Se é adulto e bebe vinho  
faça-o com moderação e às refeições



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ANDLINFIA  
Associação Nacional  
de Doentes Linfáticos  
National Association of Sufferers  
of Lymphatic Disorders

# Incompatível com o lipedema...



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