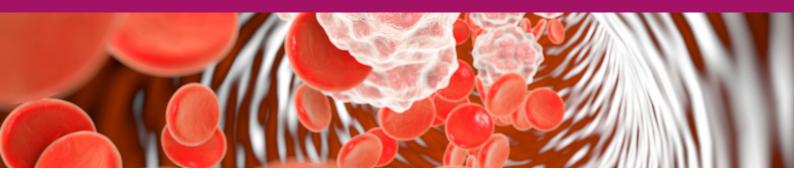




## **Obesity & Inflammation**

Systematic inflammation marked by obesity is an important health factor



Inflammation induced by obesity is triggered by your body's innate immune system. Unlike the defensive inflammatory response that fights off an infection, the inflammation marked by obesity does not resolve and, without intervention, can become chronic, meaning it lasts long-term. When fat cells in the body are stuffed with excess fat, the surrounding tissue becomes inflamed. When this happens, specialised metabolic cells (adipose or fat cells) begin the inflammatory process - disrupting metabolic regulation- That chronic, low-level inflammation is one of the driving factors behind many of the diseases associated with obesity such as cardiovascular disease and T2DM and is often called the metaflammation theory.

## **Metaflammation**

Metaflammation is the special name given to the metabolic inflammatory state associated with obesity versus infection-related inflammation. This chronic, low-grade inflammatory state originating from metabolic cells in response to excess nutrients and changes in gut microbiota, contributes to the development of T2DM and non-alcoholic fatty liver disease (NAFLD) by increasing insulin resistance in peripheral tissues (mainly in the liver, muscles, and adipose tissue) and by targeting pancreatic islets and in this way impairing insulin secretion. Diet, being overweight and a sedentary lifestyle are contributing factors however it should be underlined, that the origin of obesity-related chronic inflammation is not entirely settled (1).

## **Diet & Nutrition**

Combined physical activity and dietary interventions to promote weight loss have been shown to reduce inflammation and insulin sensitivity (2). There are many foods known to have anti-inflammatory properties and BANT nutrition practitioners assess and identify potential nutritional imbalances to understand how these may contribute to an individual's symptoms and health concerns.

Practitioners consider each individual to be unique and recommend personalised nutrition and lifestyle programmes rather than a 'one size fits all' approach.



1. https://www.endocrineweb.com/obesity-inflammation-cycle

2. https://www.nutrition-evidence.com/article/26424589?term=obesity