

# Chronic Inflammation and Non-Communicable Diseases

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## ABSTRACT

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Inflammation is a protective immune response against various agents and in healing injuries. However, constant exposure to irritants may drive the body into a prolonged state of alertness and become chronic. Chronic inflammation may hurt different tissues and organs.

Chronic inflammation indicates some underlying problems that need to be identified and resolved to protect the body from different damages. Furthermore, old age, obesity, unhealthy diet, smoking, stress, and sleep problems may contribute to increasing the risk of chronic inflammation.

Cigarette smoking, obesity, alcohol, and stress are major inducer of pro-inflammatory cytokines/ factors that can induce chronic inflammation and modify host response to exogenous antigens. The over-expressed pro-inflammatory cytokines in obesity are considered the link between obesity and inflammation. Alcohol use impairs the balance of microflora in the gut, the gut barrier function, and the liver's ability to detoxify bacterial products and generate a balanced cytokine milieu.

Severe or prolonged stress also increases the risk for physical and psychiatric disorders, which is called stress-related disease. Stress is the common risk factor for 75%–90% of diseases. The most common stress-related diseases are cardiovascular diseases, metabolic diseases, psychotic and neurodegenerative disorders, cancer, etc.

In his book “Eat Right for Your Type” Peter Adamo pointed out the relationship between blood groups, diet, and diseases. For example, Lectins, abundant and diverse proteins found in food, have agglutinating properties that affect our blood. The most common lectin, the Gluten, found in wheat and other grains, binds to the lining of the small intestine, causing substantial inflammation and painful irritation in some blood types – especially Type O.

There is evidence supporting that inflammatory response is a common factor in many diseases, including cardiovascular and metabolic diseases, psychotic neurodegenerative disorders, and some forms of cancer. So, the best practices would be to monitor health status by checking inflammatory markers, taking appropriate medication, if needed, and consuming a healthy diet (rich in antioxidants) containing fruits, nuts, vegetables, eggs, etc., with at least mild exercise; and avoiding unhealthy lifestyle, consuming junk (toxic) food, alcohol, stop smoking and lazy lifestyle.

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