Inflammation is the response of an organism’s immune system to the damage caused to its cells and vascularized tissues by microbial pathogens such as viruses and bacteria, as well as by injurious chemicals or physical insults.

Although painful, inflammation is usually a healing response. But in some instances inflammation proceeds to a chronic state, associated with debilitating disease such as arthritis, multiple sclerosis, or even cancer. At times, acute local inflammation leads to a body-wide response, which can spiral out-of-control leading to major organ failure and death.

In this month’s Nature Insight we bring together a collection of articles exploring how the inflammatory response is set in motion and ultimately controlled. Other articles take a closer look at the adverse role played by inflammation in the aetiology of some of the most prevalent diseases in modern society, and discuss ways in which both acute and chronic inflammatory processes may be amenable to novel methods of therapeutic intervention.

We are pleased to acknowledge the financial support of AstraZeneca in producing this Insight. As always, Nature carries sole responsibility for all editorial content and peer-review. We hope that both general readers and experts in the field will find these articles useful and informative.

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