

Inflammation

■ What is inflammation?

Inflammation is a complex biological response of vascular tissues to **harmful** stimuli in a protective **attempt** by the organism to remove the **injurious** stimuli and to initiate the **healing** process. The typical signs of acute inflammation are pain, heat, redness, **swelling** and loss of function.

Inflammation is not a synonym of infection; in fact, it can occur without infection. It is a sort of stereotyped response and can be considered a mechanism of innate immunity.

The factors that can stimulate inflammation include micro-organisms, physical agents, chemicals, inappropriate immunological responses, infectious agents such as viruses and bacteria, physical trauma, burns, radiation, and **frostbite**. It can also occur when tissue dies from lack of oxygen or nutrients, a situation often caused by loss of blood flow in the area.

The first stage of inflammation is often called **irritation**, which then becomes inflammation. Inflammation is followed by the discharging of pus. The granulation stage comes next, and new tissue is formed in the **wound**. Without inflammation, infections and wounds would never heal.

Inflammation can be acute or chronic.



■ Acute inflammation

Acute inflammation is the initial response of the body to harmful stimuli and is achieved by the increased movement of plasma and **leukocytes** from the blood into the injured tissues. A series of biochemical events propagates and matures the inflammatory response involving the local vascular system, the immune system and various cells within the injured tissue.

Acute inflammation usually lasts six weeks or less and can result from many skin issues, like acne, sunburns and allergic reactions.


■ Chronic inflammation

Prolonged inflammation, or **chronic inflammation**, leads to a progressive **shift** in the type of cells present at the site of inflammation and is characterised by simultaneous destruction and healing of the tissue from the inflammatory process.


Chronic inflammation lasts more than six weeks and may be indefinite.

to attempt: tentare,
provare
frostbite: congelamento
harmful: dannoso
healing: di guarigione
injurious: nocivo
leukocyte: leucocita

prolonged: prolungato
range: variare
to relieve: alleviare
shift: cambiamento
swollen: gonfio
swelling: gonfiore
wound: ferita

1  Answer the questions.

1. What is inflammation?
2. What are the symptoms of inflammation?
3. What factors can cause inflammation?
4. What are the three stages of inflammation?
5. What happens in acute inflammation?
6. What are the consequences of chronic inflammation?
7. How long can an acute inflammation and a chronic one last?

2  The pictures show natural remedies to prevent skin inflammation. In pairs, discuss which two items are easier to integrate into your everyday diet.



Papaya



Avocado



Ginger



Blueberries



Walnuts



Red Cabbage



Cranberries




Broccoli



Turmeric



Celery

3  Read the text and complete it with the missing grammatical words.

Sunburn

When your skin is exposed to the sun for a period **1.** time, it eventually burns, turning red and irritated. The sun gives off three types of ultraviolet light: UVA, UVB **2.** UVC. UVC light doesn't reach the Earth's surface. The other **3.** types penetrate your skin and cause damage. Sun damage isn't always visible. Under **4.** surface, ultraviolet light can alter your DNA, prematurely ageing your skin and eventually causing melanoma. When you get sunburn, your skin turns red **5.** hurts. If the burn is severe, you can develop swelling and sunburn blisters. You may even feel like you have **6.** flu, with a fever and headache. A few days later, your skin will start peeling and itching **7.** your body tries **8.** get rid of sun-damaged cells.



DERMATITIS

Dermatitis is a general term for skin inflammation. With dermatitis, the skin will typically look dry, swollen, and red. The causes may vary, but it is not contagious. Dermatitis can be uncomfortable for some people and can range from mild to severe. Certain types of dermatitis can last a long time, while others are seasonal, often caused by stressful situations. Some types of dermatitis are more common in children, and others are more common in adults. To relieve pain both medications and topical creams can be used.

