- Inflammation

30 DAYS TO Anti-Inflammatory Diet

What is inflammation?

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Before you start your journey on an anti-inflammatory diet, it's helpful to first understand a little bit more about inflammation and why you might be experiencing it



We have all experienced the feeling of a sore, red area that can develop around a cut as it starts becoming infected, or the swelling that occurs when we have injured ourselves. This is the result of inflammation helping our body to defend itself. When our immune system is triggered by an injury or infection, it uses the process of inflammation to fight it and then help the body heal.

Inflammation is a complex process involving a cascade of actions and different cells and chemical mediators within the body.

Generally, inflammation is a beneficial thing and it has developed to help us survive. However, if it is constantly being activated and this level of inflammation doesn't subside, it actually can cause us damage.



Acute inflammation

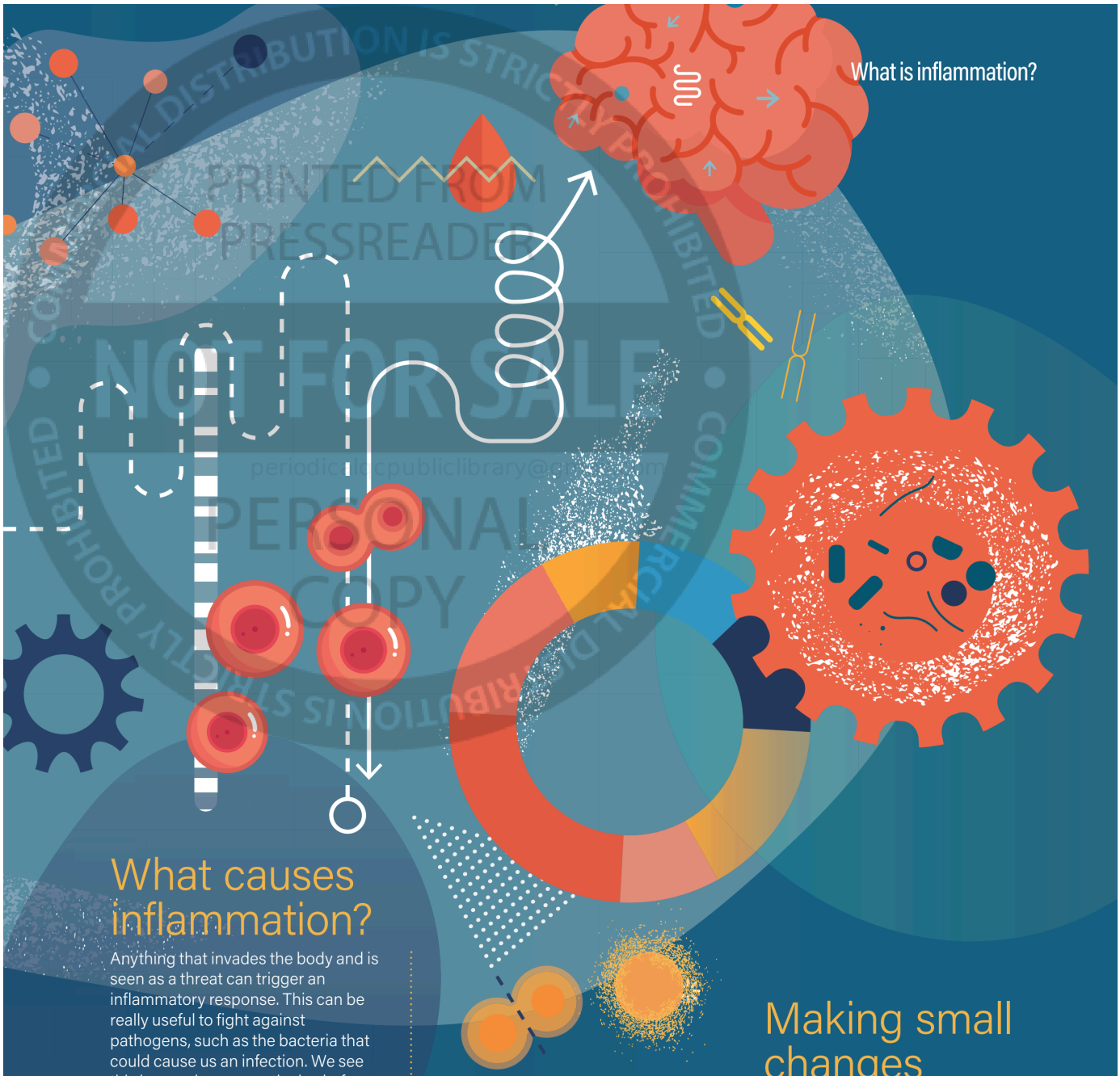
Acute inflammation happens quickly after our body has been hurt, or is exposed to a pathogen such as bacteria, which may cause disease. It usually starts very quickly and then can last for hours or days. The typical features that we experience are developing pain, redness, heat, swelling and the area that has been affected will not function effectively.

The tiny blood vessels that supply the connective tissue around the body are where the main inflammatory activity occurs. In response to an irritant, there are key stages that occur. First, there is an increase in the amount of blood flowing to the area that has been affected. The blood vessels that are carrying this increased volume of blood then start to become more permeable, or leaky. Through this change, immune cells and fluid that help the defence system to operate are able to move into the surrounding tissue. This allows them to help with defence and perform the subsequent repairs on site.

There are signals back and forth that help to control how fast this occurs and also how extensive the inflammatory process needs to be.

The result of this acute inflammatory process ultimately should lead to wound healing or the infection being cleared.

Occasionally the process can get out of control, and acute inflammation can spread to different parts of the body, either through the skin, the muscle, blood or lymph systems. This can cause complications, which range from developing increased scar tissue at the site of an injury, to widespread sepsis, where an infection has set off a widespread inflammatory response that overwhelms the body.



What causes inflammation?

Anything that invades the body and is seen as a threat can trigger an inflammatory response. This can be really useful to fight against pathogens, such as the bacteria that could cause us an infection. We see this happening across the body, for example in the lungs fighting a chest infection, or in the bladder with a urinary tract infection.

Smoking sets off a significant inflammatory response in the lungs and across the body, and frequent smokers will have chronic inflammation as a result.

Obesity results in an increase in fat cells, and the presence of these, in particular across the belly, also cause a chronic inflammatory process.

Some people suffer from auto-immune disorders, where the body mistakenly identifies a normal part of the body as being an intruder, and an attack arises on healthy tissues. Rheumatoid arthritis and Systemic Lupus Erythematous (SLE) are examples of this.

Complications

The importance of chronic inflammation and its effect on our health can't be understated. Chronic inflammatory diseases make up the most significant cause of death in the world. In fact, the World Health Organization (WHO) states that these chronic diseases are actually the biggest threat to our health.

The chronic inflammatory diseases that we see having the biggest impact worldwide are diabetes, stroke, obesity, cancer, heart disorders and chronic respiratory diseases. Three out of five people will die from these diseases.

Making small changes

Without inflammation we would not be able to survive. We rely on our body being able to defend itself against all the potential invaders it encounters on a constant basis. Improving our understanding of what inflammation is and the way that our body uses this, in both positive and negative ways, can empower us in our own journey to improve our personal health.

Although we may have little control over our genetics and how we are programmed to respond to some environmental triggers, such as in the development of asthma, or in auto-immune diseases such as rheumatoid arthritis, there are many aspects that we can make positive changes, including starting to follow an anti-inflammatory diet.