Patient Information
Pain and chronic inflammation

Primary Integrated Community Services Ltd

What is the difference between acute and chronic inflammation?

Inflammation is the body's natural response to injury or infection. It is controlled by the immune system which is constantly protecting us. In the early or 'acute' stages it helps to kill bacteria, clear harmful debris, and heal the body. There will often be swelling, warmth or redness. Because its aim is to protect us, inflammation usually comes with pain, the alarm which alerts us that something may be wrong.

Inflammation usually settles once healing has occurred. However sometimes it persists and becomes persistent or 'chronic' inflammation. It can continue even when the infection has gone, and the injury has healed. Sometimes chronic inflammation does not start because of a physical injury but rather because of a build-up of general physical and/or psychological stress or ill health.

Why does chronic inflammation cause ongoing pain?

Chronic inflammation related to a protective immune system causes increased sensitivity in the central nervous system. Studies of people with widespread pain and sciatica have shown increased inflammation in parts of the brain related to the body areas where there is pain. The central nervous system relays messages between the brain and every part of the body about what is going on. When it is oversensitive and inflamed, these messages increase, and the central nervous system responds with pain which is out of proportion to any damage within the body, and symptoms which do not fit with what we would expect.

How do I know if I have chronic inflammation?

Chronic inflammation can affect many different areas of the body including muscles and joints but also the gut and central nervous system including the brain. This can lead to pain all over the body, irritable bowel problems, fatigue and mood changes including depression and anxiety. It affects the immune system so you can also be more prone to infections.

Who is more likely to get chronic inflammation?

Research has found that chronic inflammation is more common in people who do not keep active and moving and have diets high in sugar, red meat, and highly processed foods. It is also more common in people who have experienced physical or emotional trauma, who have poor sleep, and ongoing life stress, without time to rest and relax.

What conditions are associated with chronic inflammation?

Certain pain conditions are known to be associated with chronic inflammation. In some conditions the inflammation is detectable with blood tests e.g., rheumatoid arthritis. However, with other conditions the inflammation is in the brain and nerves and so cannot be picked up by blood tests. This is the case with fibromyalgia and ME/CFS, and widespread muscle and joint pains. Chronic inflammation is also associated with chronic conditions such as heart disease, dementia, diabetes, inflammatory bowel disease and some cancers. Some inflammatory conditions run in families whilst others do not.

Medication and chronic inflammation

When it comes to medication not all forms of inflammation are treated the same way. Some conditions like rheumatoid arthritis improve with specific medications which calm the immune system. Others like fibromyalgia are often not helped very much by medication. Contrary to what you might expect anti-inflammatory medication does not help in many cases.

Chronic inflammation does not present the same in everyone

Everybody is different and the things which impact on inflammation in one person may be different from another. For one person they may eat a diet high in sugar and processed food and they may not keep physically active. But for another they may remain as active as they can and eat healthily, but they do not sleep and feel stressed, and have a history of emotional trauma.

How can we support you to manage chronic inflammation?

As a pain service, we will support you to explore what might be contributing to chronic inflammation in your case and to the approaches that have been shown to help reduce it.

Here are some ways to reduce chronic inflammation:

- Anti-inflammatory diets
- Benefits of movement
- Sleep hygiene
- Stress management/relaxation
- Stopping smoking