



Where does
most of the

PAIN

come from

Let's Talk About INFLAMMATION

Why Does It Matter and How Cryotherapy May Be the Safest Way to Manage It

The word “inflammation” is used a lot, but it’s largely misunderstood even among wellness professionals.

As Harvard Health Publishing points out: “Research on inflammation has created a shift in medical thinking. For two millennia it has been viewed mainly as a necessary, even beneficial, response to illness or injury. But now both observational studies and laboratory research are indicating that inflammation can be more of a bane than boon, the common, causative factor in many diseases”.

Yes, we need it. Inflammation is our body's way of protecting itself from infection, illness, or injury. It’s an immune response without which infections, wounds and any damage to tissue would never be able to heal.

As the immune system recognizes damaged cells, foreign organisms, such as bacteria and viruses, irritants, or pathogens, it produces white blood cells, immune cells, and substances called cytokines, and begins the fight against the problem.

The signs and symptoms of inflammation can be uncomfortable but are a show that the body is trying to heal itself. Most often, they include:

- **Pain:** The inflamed area is likely to be painful, especially during and after touching. Chemicals that stimulate nerve endings are released, making the area more sensitive.
- **Redness:** This occurs because the capillaries in the area are filled with more blood than usual.

- **Immobility:** There may be some loss of function in the region of the inflammation.
- **Swelling:** This is caused by a buildup of fluid.
- **Heat:** More blood flows to the affected area, and this makes it feel warm to the touch.

Our immediate reaction to swelling is to try and decrease it, and ice is often used to slow the blood flow in the injured area, thus reducing its sensitivity. However, it is important to remember that inflammation is an essential part of the healing process, and healing requires ENHANCED blood circulation. Here is why we hear increasingly loud voices, particularly in sports medicine, that the recommended for decades RICE approach (rest, ice, compress, elevate) is NOT the right one to promote faster recovery. But this is a separate topic all together. It's important to point out that the response that we have been talking about so far is ACUTE INFLAMMATION. It is a short-term reaction to end when the problem has been taken care of. The “good guy” to embrace.

A different story begins when the inflammation does not go away for longer than it's necessary OR if it's triggered by the immune system without any foreign invaders to fight off. This is CHRONIC INFLAMMATION, and it causes nothing but harm.

Chronic inflammation is a long-term reaction of the body that can last from several months to many years. It can result from:

- Body's failure to eliminate whatever was causing an acute inflammation
- An autoimmune disorder that attacks normal healthy tissue, mistaking it for a pathogen that causes disease
- A persistent exposure to a low level of an irritant, such as an industrial chemical, over a long period of time
- Obesity or on-going stress

Diseases and conditions that include chronic inflammation are:

- Rheumatoid arthritis
- Psoriatic arthritis
- Gouty arthritis
- Lupus
- Heart disease and stroke
- Atherosclerosis
- Sciatica
- Ankylosing spondylitis
- Asthma
- Tuberculosis

- Diabetes
- Obesity
- Chronic peptic ulcer
- Periodontitis
- Ulcerative colitis and Crohn's disease
- Sinusitis
- Active hepatitis
- Some cancers

Many of these conditions can result in muscle pain, joint pain, neck pain, back pain, chest pain, or headaches. To lessen the pain, the underlying inflammation needs to be managed. Many pain medications only mask the symptoms (the resulting pain), without addressing the cause. This way, the problem keeps deepening and the dose of pain killers required to handle the pain increases. In some cases, like rheumatoid arthritis or ankylosing spondylitis, the untreated cause can result in permanent damage.

It is important to understand that you WON'T get better if you treat inflammatory pain with treatments that only soothe mechanical pain, and vice versa. Some painful conditions of the joints and musculoskeletal system that may NOT be associated with inflammation include osteoarthritis, fibromyalgia, muscular low back pain, and muscular neck pain.

Some of the inflammation-caused conditions are difficult to diagnose. For example, it may take almost 9 years from the first symptoms to diagnosis of ankylosing spondylitis, one of the conditions that result in back pain and stiffness. For this reason, it is essential not to ignore symptoms and not to postpone seeking answers.

Some of the symptoms of chronic inflammation are:

- Joint pain
- Joint stiffness
- Loss of joint function
- Abdominal pain
- Chest pain
- Fatigue
- Mouth sores
- Rash

Inflammation needs to be well managed, including both elimination of the trigger (like exposure to harmful chemicals, lack of physical activity, consuming inflammatory foods, stress) and introduction of anti-inflammatory treatments and habits.

We will address many of these factors in a separate article.

To conclude, let's just mention a few natural treatments that are powerful reducers of inflammation due to improving blood flow throughout the body – cold, heat, and the alteration of the two.

The oxygen and nutrients that blood carries to all internal organs and parts of the body are crucial to the healing process. By improving circulation and blood flow, more healing nutrients and oxygen reach the cells. Inflammation reduces, leading to less inflammatory pain.

WHOLE BODY CRYOTHERAPY that uses extreme, not survivable, temperatures, may be the world's best kept secret in fighting inflammation and the related pains. It is the ONLY of the mentioned above treatments that initiates a survival response called "fight or flight". Exposure to cryogenic temperatures leads to severe constriction of the peripheral blood vessels and taking the blood to the core where maintaining a constant temperature is essential (if the body was to sacrifice some part in order to stay alive, it would be a limb). Systolic blood pressure increases, and more blood surrounds all internal organs. Oxygen and nutrients get delivered, toxins and waste products get expelled. In addition, the treatment is very brief (3 min max) and surprisingly comfortable (the dry cold air feels so much better than any treatment involving ice or ice-cold water).

To tackle inflammation systemically, treatments need to be regular. Initially, a more intense treatment schedule, like one procedure every day or every other day, will produce apparent results faster. After that, the frequency can be reduced to sustain the results already achieved. Most locations offer membership packages to keep the cost down. Whatever the pricing policy, the cost involved is incomparable with the price of the condition-specific medications that you see advertised on TV on daily basis.

Is whole body cryotherapy for YOU? You SHOULD incorporate it in your pain management regimen, if only you have an easily accessible location in your area and don't have one of the contraindicative conditions, like hypertension or cold allergies. A detailed list will be provided by any cryotherapy location you choose to go to.

Resources: Harvard Health Publishing, Medical News Today, Healthline, American Chronic Pain Association