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Nonsteroidal Anti-Inflammatory Pills Trigger Heart Damage

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STORY AT-A-GLANCE

- Commonly prescribed to treat pain, nonsteroidal anti-inflammatory drugs (NSAIDs) are linked to an increased risk of heart failure in people with Type 2 diabetes
- Data show people with diabetes have twice the risk of heart failure without using NSAIDs, and have a higher risk of chronic low back pain and degenerative lumbar spine disorders, which may increase the potential they use NSAIDs
- Decades of research have not supported a correlation between cholesterol and heart disease; Dr. Malcolm Kendrick asserts there is a thrombogenic pathology responsible for heart attacks. He recommends avoiding NSAIDs as they trigger platelet aggregation, making blood clots more likely
- Heart failure occurs when the heart muscle doesn't function efficiently. Data show that supplementation with omega-3 fats and vitamin D lower complications from, and risk of heart failure
- Anti-inflammatory properties of some foods and supplements have demonstrated efficacy similar to diclofenac, a nonsteroidal anti-inflammatory drug commonly prescribed for mild to moderate arthritis. Consider curcumin, Frankincense, capsaicin, omega-3 fats and fermented and cultured foods to help lower inflammation and control pain

Nonsteroidal anti-inflammatory drugs (NSAIDs)[1] are used to treat mild to moderate pain. Research[2] presented at the European Society of Cardiology in August 2022

demonstrated that these over-the-counter pain medications can increase the risk for heart failure in individuals who have Type 2 diabetes.

NSAIDs are used to treat such conditions as back pain, sprains and strains, headaches, migraines, osteoarthritis and menstrual cramps. Low back pain is a common global issue that is the leading cause of years lived with disability.[3]

According to the World Health Organization,[4] the number of people globally with diabetes rose from 108 million in 1980 to 422 million in 2014. According to the CDC,[5] 6.2 million adults in the U.S. have heart failure and roughly 37.3 million Americans have diabetes.[6]

Unfortunately, those with Type 2 diabetes have a higher risk for heart failure when using anti-inflammatory medications and have a higher incidence of chronic lower back pain, which may prompt the use of NSAIDs. There is also a strong association between people with Type 2 diabetes and degenerative lumbar spine disorders,[7] which can cause low back pain.

Newly diagnosed Type 2 diabetes is also linked with an increased risk of chronic lower back pain,[8] with a higher incidence found in women than in men. One 2017 study[9] analyzed the relationship between the progression of diabetes and back pain. The data showed that patients with uncontrolled diabetes had an increased development of chronic back pain.

Nonsteroidal Anti-Inflammatory Drugs Linked to Heart Failure

The current study[10] presented at the European Society of Cardiology in Barcelona, Spain, demonstrated that short-term use of NSAIDs is associated with heart failure in individuals with Type 2 diabetes.[11]

The scientists wrote[12] that a previous association had been made between NSAIDs and an increased risk of heart failure in the general population.[13,14] They sought to determine if using NSAIDs with Type 2 diabetes could increase the risk of heart failure, given that people with Type 2 diabetes have twice the risk of heart failure without using NSAIDs.[15]

The researchers included 331,189 participants whose average age was 62 years. Those who used NSAIDs claimed prescriptions of ibuprofen, diclofenac, naproxen and celecoxib. The researchers did not include over-the-counter use of NSAIDs in the analysis.

They recorded a median follow-up of 5.85 years, during which 23,308 people were hospitalized for the first time with heart failure. Researchers then separately analyzed the individuals who reported they took NSAIDs and found that there was an increased risk of hospitalization for heart failure with the use of diclofenac or ibuprofen. They did not find the same risk in those who took naproxen or celecoxib.

However, only 0.9% of the participants took naproxen and 0.4% took celecoxib. Researchers believe that the lack of association between those two NSAIDs and heart failure might have been due to the small percentage of participants who took the prescription medications.

Further analysis showed that the strongest association was found in participants who used NSAIDs infrequently, and in patients who were older than 65 years. There was no association in individuals who were younger than 65 years or who had normal hemoglobin A1c levels. Dr. Anders Holt, one of the researchers in the study concluded:[16]

> *"This was an observational study, and we cannot conclude that NSAIDs cause heart failure in patients with type 2 diabetes. However, the results suggest that a potential increased risk of heart failure should be taken into account when considering the use of these medications. On the contrary, the data indicate that it may be safe to prescribe short-term NSAIDs for patients below 65 years of age and those with well-controlled diabetes."*

Are Blood Clots a Root Cause of Heart Disease?

For the past six decades, U.S. dietary advice has warned against eating cholesterol-rich foods. The claim is that dietary cholesterol promotes arterial plaque formation, which

leads to heart disease. Yet, even with overwhelming evidence to the contrary,[17,18,19,20] dogmatic thinking has been persistent.

Decades of research have failed to demonstrate a correlation between dietary cholesterol and heart disease. The 2015-2020 Dietary Guidelines for Americans addressed this shortcoming, announcing that "cholesterol is not considered a nutrient of concern for overconsumption."[21]

However, a mere five years later they reversed the decision. The 2020-2025 Guidelines[22] recommend lowering trans fats and dietary cholesterol. Of course, trans fats should be limited or even eliminated, but it is absurd for the USDA to revert to its old recommendations since cholesterol is not the cause of heart disease.

In an interview with Dr. Malcolm Kendrick[23] in early 2022, we discussed the underlying mechanism for heart disease and the pathological processes that cause blood clots to form on the arterial walls. The thrombogenic hypothesis of heart disease asserts when these blood clots are not eliminated, they become a vulnerable point over which other blood clots will form. Over time, this appears as an atherosclerotic plaque.

When endothelial cells are damaged, a clot forms to help repair the area. This is then covered by endothelial progenitor cells to help create a new endothelial layer. This repair process is gradual and nearly always ongoing. Problems occur when the damage and clotting process happens faster than the repair process.

In this case, plaque begins to build up, which thickens the arterial wall and forces blood through a narrower gap. There are several common causes of endothelial damage[24] such as viral infections, smoking, diabetes, high blood pressure and exposure to heavy metals, such as lead, aluminum and arsenic.[25]

In his book, "The Clot Thickens: The Enduring Mystery of Heart Disease," Kendrick reviews many different strategies that can lower your disease risk, one of which is to avoid using NSAIDs, such as ibuprofen, naproxen and aspirin. Although these drugs effectively inhibit inflammation in the body, they also cause platelet aggregation by

blocking COX-2.[26,27] In other words, they activate your blood clotting system, which **makes blood clots more likely**.

Omega-3 and Vitamin D May Lower Heart Failure Complications

Heart failure, which is sometimes called congestive heart failure, happens when the heart muscle doesn't function as efficiently as it should. This causes blood to back up and sometimes fluid to fill the lungs. Health conditions that can trigger heart failure are high blood pressure, coronary artery disease, obesity and diabetes.[28]

Data from a 2022 study[29] published in JACC showed that people with Type 2 diabetes had a lower risk of hospitalization for heart failure when they used omega-3 supplements. Data were gathered from the vitamin D and Omega-3 Trial (VITAL),[30] which started in 2010.

The parent trial engaged 25,871 men and women to evaluate dietary supplementation with vitamin D3 or omega-3 fatty acids and the impact it had on developing heart disease, stroke or cancer in people who did not have a history of these health conditions. Participants used the supplement for a five-year intervention phase and researchers continued with ongoing follow-up.

Data from the ancillary study,[31] in which the researchers evaluated whether omega-3 supplementation could lower the risk of the first heart failure with hospitalization or recurrent hospitalization, showed it reduced the hospitalization rate for the first heart failure by 0.69 in participants who had Type 2 diabetes when it was compared against taking a placebo.

They also found it effectively reduced recurrent hospitalization in Black participants. The data did not show a benefit for preventing heart failure in individuals who did not have Type 2 diabetes. There is also evidence from multiple studies that vitamin D has a significant cardioprotective effect.

One study found that in patients with congestive heart failure, vitamin D may serve as “a new anti-inflammatory agent for the future treatment of the disease.”[32] Evidence also

suggests that vitamin D has an impact on mineral metabolism and myocardial dysfunction in patients with CHF. Researchers concluded that deficiency may be "a contributing factor in the pathogenesis of CHF."[33]

Epidemiological studies have provided strong support that vitamin D has cardioprotective effects[34] and data show that most patients with CHF have insufficient vitamin D levels, lower than 20 ng/mL.[35] More data indicated that low concentrations of vitamin D3 contribute to a poor prognosis in patients with heart failure, which may be related to inflammation.[36]

Furthermore, deficiency is highly prevalent, including in patients with heart failure and is "a significant predictor of reduced survival."[37] Researchers found that supplementing with vitamin D was independently associated with a reduction in mortality in people with heart failure and that lower vitamin D levels were associated with high body mass index, diabetes, decreased calcium and hemoglobin levels and female gender.[38]

Alternative Anti-Inflammatory Foods and Supplements

The anti-inflammatory properties of nonsteroidal anti-inflammatory drugs help promote pain control. Thankfully, there are alternative strategies that help reduce the inflammatory process in your body and therefore help reduce pain.

Curcumin is one of those strategies. Curcumin is the major biologically active polyphenolic compound of turmeric and the compound that give it the characteristic yellow color. Turmeric has long been used in Indian cuisine and medicinal use in traditional Chinese medicine and Ayurvedic medicine.[39]

The safety and nontoxicity of curcumin, even at high doses, have been documented in human trials.[40] It has demonstrated the ability to slow the progression of osteoarthritis and relieve pain in an animal study,[41] and in one human trial[42] with 139 people with knee osteoarthritis, researchers found there was no statistically significant difference in pain between people taking curcumin and those taking diclofenac.

Additionally, those taking curcumin had fewer episodes of flatulence, experienced statistically significant weight loss and did not require an H2 blocker to reduce excess stomach acid, which 28% of those using diclofenac did. Other anti-inflammatory foods or supplements include:

Fermented and cultured foods — These work by balancing your gut microbiome and optimizing your gut flora. Gut dysbiosis can increase the inflammatory response in your body and contribute to pain.

Fermented foods such as kefir, natto, kimchee, miso, tempeh, pickles, sauerkraut, olives and other fermented vegetables will help reseed your gut with beneficial bacteria. Ideally, you'll want to eat a wide variety of them as each contains a different set of beneficial bacteria (probiotics).

Omega-3 fatty acids — Marine-based omega-3 fats found in cold water fish are low in environmental toxins. They are particularly important for brain and heart health. Get your omega-3 fats from wild-caught Alaskan salmon, sardines and anchovies. It is also necessary to reduce your omega-6 intake to achieve a balanced intake of as close to 1-to-1 as possible.

Matcha tea — This nutrient-rich green tea comes as a stone-ground unfermented powder. The best Matcha tea comes from Japan and is an excellent source of antioxidants.

Herbs and spices — Ounce for ounce, these are the most potent anti-inflammatory ingredients. One study[43] found cloves, ginger, rosemary and turmeric could significantly impact systemic inflammation. In another study,[44] garlic effectively lowered several biomarkers of inflammation, including C-reactive protein, TNF-α and interleukin-6.

Capsaicin — One 2013 animal study[45] found capsaicin "produced anti-inflammatory effects that were comparable to diclofenac," a nonsteroidal anti-inflammatory drug commonly prescribed for mild to moderate arthritis.

Frankincense (Boswellia serrata resin) — One paper[46] noted Frankincense "possesses anti-inflammatory, anti-arthritic, and analgesic properties" and is an inhibitor of leukotriene biosynthesis. This makes it useful in the treatment of pain and disease driven by leukotrienes, such as inflammatory and degenerative joint disorders.

Another study[47] found Frankincense and myrrh are capable of suppressing inflammation by inhibiting the expression of inflammatory cytokines.

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