

## NSAID USE AND INCREASED CARDIOVASCULAR RISK

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*Maria Alice Montalvão Ferraz*

Centro Universitário de Brasília – UniCEUB

*Nicole Tie Furrier Serikava*

Centro Universitário de Brasília – UniCEUB

*Isabella Ferreira Colomietz*

Centro Universitário de Brasília – UniCEUB

*Catarina Ribeiro Botelho de Sousa Troncha*

Centro Universitário de Brasília – UniCEUB

*Anna Júlia Arraes Alves de Souza*

Centro Universitário de Brasília – UniCEUB

*Antoinette Oliveira Blackman*

Centro Universitário de Brasília – UniCEUB

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## INTRODUCTION

The indiscriminate use of non-steroidal anti-inflammatory drugs (NSAIDs) without medical advice has been representing an important public health problem in Brazil and in the world, due to the easy access to these drugs, associated with the lack of follow-up by health professionals to the users. Chronic NSAIDs. It is known that in high doses and without proper supervision, it can contribute to an increase in the occurrence of systemic arterial hypertension, heart failure and myocardial infarction. Therefore, adequate management of these patients who need the use of medication is essential.

## METHODOLOGY

This is a systematic review of the literature, based on searches in the PubMed/MEDLINE database using the descriptors “NSAIDs” AND “cardiovascular risk”. 384 articles were found. Articles between the years 2017 and 2022 were selected, and works deemed inappropriate to the theme were excluded, leaving 10 articles.

## DISCUSSION

NSAIDs are frequently applied in the treatment of chronic inflammatory pain. However, recent studies show that NSAIDs are associated with 30% of hospitalizations due to adverse reactions resulting from the misuse of these drugs. In this sense, the most affected systems are the cardiovascular and gastrointestinal, the latter due to COX-2

inhibition and reduced protection of the gastric mucosa. As for the cardiovascular scope, there is selective inhibition of the isoenzymes COX-1-responsible for the synthesis of thromboxane A<sub>2</sub>, regulation of renal function and blood flow-and COX-2, which acts on sodium excretion, on the production of prostacyclin 2, on vasodilation and antiplatelet function. Accumulation of body fluids was observed, due to homeostatic imbalance, causing heart failure and consequently increasing the risk of myocardial infarction. In addition, with an increase in sodium concentration and a decrease in prostacyclin synthesis, there is an increase in blood pressure, which can cause hypertension, especially in those with chronic use. Another consequence is atrial fibrillation, which despite not having a biological explanation, an increased risk of 12% was observed in patients using NSAIDs when compared to those who did not use them.

## CONCLUSION

It is identified that the chronic use of NSAIDs, associated with poor medical supervision, can cause cardiovascular impairment, thus being a necessary topic, which demands recurrent updates. Thus, the study emphasizes the need to use NSAIDs properly, in order to avoid cardiac and systemic repercussions in general.