

## Abstract

The use of opioids in medicine is necessary as they serve to suppress pain as a part of anesthesia notably during surgical procedures. After that, they help suppress pain during postoperative care and they are also prescribed to patients with chronic pain, for example in the final stages of cancer. However, opioids are among the most abused substances worldwide. The United States of America is facing an opioid epidemic, also called the opioid crisis, which began mainly with the excessive prescription of opioids and their subsequent misuse. It is clear that opioids affect the immune system which has been the subject of many recent studies. Different opioids have variable effects on the immune system. The understanding of their impact on the immune system could mean improvement of health care, and at the same time could present a basis for proposals of new treatment methods for some of the diseases. This bachelor thesis summarizes the available studies dealing with the influence and effects of various opioids on the cells of the immune system in order to better understand their importance and their use in practice.

Keywords: opioids, immune system, inhibition, immunomodulation, phagocytes, lymphocytes