

Coronavirus (Covid-19) Infection

Should you use Ibuprofen: Yes or No?

Headline March 14, 2020

“The health minister of France, Olivier Véran, has issued a blunt warning about painkillers taken by people ill with the coronavirus: Stay away from drugs like ibuprofen and aspirin.”

There is emerging controversy whether ibuprofen (Advil and Motrin) should be used if you have the Covid-19 infection. The first hint of this development was revealed in the medical journal Lancet reported online on March 11, 2020. (*Lancet Respiratory Medicine*, 2020, March 11; Published Online: <https://doi.org/10.1016/P11>).

Each day more is known about the novel coronavirus that is causing the world-wide pandemic known as Covid-19, but there is so much more that scientists and doctors do not yet know about this truly novel virus.

Here is what we know: the coronavirus must attach to a human cell to begin the infectious process. It appears that the attachment site is a receptor called ACE2 (Angiotensin Converting Enzyme-2). Ibuprofen in particular—and all drugs in this class of nonsteroidal anti-inflammatory agents or NSAIDs—increase the number of ACE2 receptors, thus increasing the potential for the coronavirus to attach and then attack a cell. This data is based upon basic science realities and I think must be acknowledged.

The increase in ACE2 receptors by ibuprofen is also the probable mechanism why this drug also causes increased blood pressure in many people, leading to a worsening of hypertension.

Why do we use ibuprofen when infected by coronavirus, influenza, or even the common cold? Ibuprofen is a powerful fever-reducer and significantly decreases the aches and pains associated with infectious diseases. But if it has the potential to make a coronavirus infection worse, is it worth taking this drug? My answer is, NO.

Questions & Answers:

Can I take other, non-ibuprofen NSAIDs for my fever and muscle aches when I am infected?

No. All drugs in this class of medications (over-the-counter and prescription) will increase the number of ACE2 receptors. These include: naproxen (Aleve), aspirin, Ketoprofen, Celebrex, diclofenac (Voltaren), etc.

I take a low dose aspirin (81 mg) for my heart, should I stop this also?

No. Continue low dose aspirin. It is thought that at low doses, the ACE2 receptor is not stimulated enough by very low dose aspirin. And the benefit from low dose aspirin outweighs the very low risk of a problem with this drug.

What should I take for fever and muscle aches from this viral infection?

Acetaminophen (Tylenol) is a much better choice. However, you should reconsider if every fever must be treated. See my handout on fevers. And only use acetaminophen at the 325 mg dose. You may take two tabs every six hours. The extra strength dose of 500 mg is too high and can cause liver damage. If you are using acetaminophen then it is best to refrain from alcohol use, due to a significant negative interaction.

I agree with the French Health Minister, we must avoid NSAIDs in the presence of ANY infectious disease, right now that is or looks or acts like coronavirus found in this pandemic.

Steve Paulus, DO, MS

www.stevepaulus.com