

Should you use Ibuprofen for Covid-19?

Yes or No?

—Part FOUR in the Coronavirus Strategy Series—

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 a persistent scientific controversy whether ibuprofen (Advil and Motrin) should be used if you have Covid-19. The first hint of this development was revealed in the medical journal Lancet reported on March 11, 2020.

Each day more is understood about the novel coronavirus that is causing this terrible pandemic known as Covid-19. But there is 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.

It is interesting to be in the clinical trenches of this fight against coronavirus and at the same time observing the other battle being waged: scientist vs. scientist and famous doctor vs. famous doctor. The ugly public arguments for and against various medical therapies for Covid-19 make me sick—but most of all they make me confused. There is no black or white, there are only conflicting reports.

Most importantly, there is NO current double blind placebo controlled or even a current population based study on the effects of NSAIDs on coronavirus. Everybody's arguments are theoretical and extrapolated from the non-coronavirus literature.

I have recently reviewed all the arguments for and against the use of NSAIDs such as Ibuprofen as fever reducers for Covid-19. There is no consensus. There is only name calling and insult slinging. I have listed below my review of the literature for your edification. In my opinion, it is better to be safe than sorry. So, I am against NSAIDs until the current science is updated.

Infectious disease expert recently reported in the British Medical Journal that any prolonged respiratory illness or the complications of any respiratory infections (not just Covid-19) may be made worse when NSAIDs are used during the infection.

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Questions and I hope some cogent answers:

Can I take other, non-ibuprofen NSAIDs for my fever and muscle aches when I am infected and have Covid-19?

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 caused by the coronavirus 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/capsule dose. You may take two tabs (650 mg total) every six hours. The extra strength dose of two 500 mg/capsules adds up to 1000 mg every six hours and is too high, having the potential to cause liver damage. If you are using acetaminophen then it is best to refrain from alcohol use, due to a significant negative interaction with acetaminophen.

For now . . .

I agree with the French Health Minister, and the editors from the *British Medical Journal*, and the *Lancet* that we must avoid NSAIDs in the presence of ANY infectious disease that is or looks or acts like coronavirus during this pandemic.

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