

Paracetamol versus ibuprofen—which works best and when?

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Credit: AI-generated image ([disclaimer](#))

In most cases, pain and fever relief is as simple as a trip to your local supermarket for some paracetamol or ibuprofen.

While both are effective at reducing [pain](#), they work in different ways. So deciding which one you should choose is dependent on the type of

pain you are experiencing. Sometimes it might be appropriate to take a medication that contains both drugs.

In Australia, [paracetamol](#) is branded as Panadol, Herron Paracetamol, Panamax, Chemist Own or Dymadon, plus there are generic chemist brands. Nurofen is the common brand name for [ibuprofen](#), which is also sold under generic brand names.

So how do you know which one to choose and when?

Different blocking actions

While ibuprofen and [paracetamol](#) can be taken for similar reasons (pain relief) each works in a slightly different way.

Ibuprofen is a [non-steroidal anti-inflammatory drug](#), which means it acts by blocking the enzymes that produce a group of chemicals called [prostaglandins](#). These chemicals are important for normal body functions such as relaxing [blood vessels](#), preventing [blood clotting](#), secreting protective mucus in the gut and helping the uterus contract. They are also involved in inflammation, pain and fever.

It is still not completely understood how paracetamol works. Like ibuprofen, it is thought to act by blocking the enzymes that produce prostaglandins, although through a different mechanism to ibuprofen. There is also good evidence paracetamol [interacts](#) with the brain's [endocannabinoid system](#) and the "[descending pain pathway](#)", which inhibits the perception of pain.

Is one drug better than the other?

Because they each provide pain relief in different ways, paracetamol can

be better at treating some types of pain, while ibuprofen is better at treating other types. But be wary of packaging that claims a medication is useful for targeting pain associated with a specific condition as these claims are [not true](#).

Because it reduces inflammation, the [Australian Therapeutic Guidelines](#) state ibuprofen is the better choice for pain associated with osteo- and rheumatoid arthritis, period pain, some types of headache, and for pain that comes from having an operation. Paracetamol does not reduce inflammation but it is a better choice when fever is associated with the pain, like when you have a cold or flu.

The Australian government recommends either paracetamol or ibuprofen if you have [pain associated with COVID](#).

What about taking both or 'piggybacking' them at intervals?

We can sometimes get better relief when we take both types of medicine at the same time, since each targets a different cause or pathway of the pain. If one pathway does not completely control the pain then it can be useful to target the other one. The effects of each drug [can add](#) together for a bigger effect.

Combination products that contain both paracetamol and ibuprofen in a single tablet include [Nuromol](#) and [Maxigesic](#).

Using a combination product means you can take fewer tablets. However, the doses in these combined products are sometimes less than the maximum recommended dose, meaning they might not work as well when compared with taking the tablets individually.

Other times, you can get the best effect by alternating doses of ibuprofen and paracetamol. This keeps the levels of the medication in the body more constant and helps to provide more steady [pain relief](#). This may be particularly useful when treating [pain](#) and [fever](#) in children. To do this, one drug is given, then a dose of the other drug is given a few hours later, with you continuing to alternate between the two throughout the day.

If you are alternating between different pain medicines, make sure you leave [time \(at least one hour\)](#) between the dosing of each product to get more effective and consistent relief. Only give the recommended dose of each medicine as outlined on the pack. And do not administer more than the maximum recommended number of doses for each medicine per day.

How do the side effects compare?

Side effects from either drug are rare and generally mild.

[Ibuprofen](#) does have a [reputation](#) for causing stomach problems. These can manifest as nausea, indigestion, bleeding in the stomach, and diarrhea. For this reason, people with a history of bleeding or ulcers in the gut should not take ibuprofen. Ibuprofen is also known to sometimes cause headaches, dizziness, and higher blood pressure.

Because ibuprofen thins the blood, it should also not be taken by people who are taking other medicines to thin the blood; like aspirin, warfarin, and clopidogrel. Ibuprofen should also be [avoided](#) by pregnant women and people with asthma. In these cases, paracetamol is the better choice.

However, you need to be careful when using these medicines to make sure you don't use more than is recommended. This is particularly important for [paracetamol](#).

Paracetamol at the recommended doses is not toxic but too much can lead to liver failure.

Because paracetamol is found in lots of different products, it can be hard to keep track of exactly how much paracetamol you have taken and this increases the risk of taking too much.

Both work, both need to be used safely

Paracetamol and [ibuprofen](#) are effective medications for the relief of both pain and fever; however, care must be taken to use them safely.

Always read the label so you know exactly what products you are using and how much. Only take the recommended dose, and if you need to, write down the time you take each dose. Your pharmacist or doctor can also advise on the best medicine for your pain and fever and how to use the selected medicine safely.

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