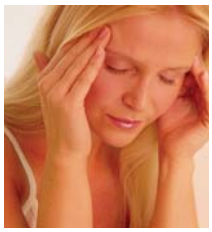
Taking the right painkillers

Almost two thirds of us took painkillers last year but most of us chose by brand rather than type

Q What causes pain in the body and how do painkillers work to prevent it?

A If your body is injured, enzymes produce chemicals called prostaglandins. These transmit pain signals to your brain and cause inflammation in the injured area. Inflammation is the body's response to an injury, such as a sprain, and typically causes the area to become red, swollen and painful. Often the inflammation results in a loss of function, as with a sprained ankle. Painkillers reduce pain in different ways. Some target the site of the pain; others reduce the sensation of pain.



Q Are gels that you apply to the skin to treat aches as effective as those you swallow?

A Gel painkillers, such as ibuprofen gel, are as effective as tablets in treating acute sprains and can cause fewer gastrointestinal side effects. But research has shown that for the treatment of long-term pain, such as arthritis, oral painkillers relieve pain more effectively.

Q Is it harmful to take paracetamol, aspirin, ibuprofen or codeine with alcohol?

A If you drink moderate amounts of alcohol (which is up to 14 units a week for women and 21 units for men) you shouldn't experience serious problems when taking painkillers, although codeine can make you sleepy and alcohol can increase this effect.

Unless you have a damaged liver, taking recommended doses of paracetamol with alcohol shouldn't cause a problem. But alcohol can exacerbate existing stomach problems caused by taking aspirin or ibuprofen, particularly if you are taking them regularly over a long period.

Q Can I take painkillers after drinking alcohol but before bed to help prevent a hangover?

A Painkillers won't help prevent a hangover. Painkillers work by blocking pain for a short time, so you won't feel any effect when you're asleep. Ibuprofen and aspirin can irritate your stomach so you could feel worse in the morning. But painkillers can help relieve a headache the next morning. Drinking plenty of water before going to bed will help.

WARNING

The advice here is for guidance only. Ask your GP or pharmacist for professional advice about your condition. Painkillers can cause adverse reactions in some people and you should be particularly careful if you're asthmatic. Opioid painkillers (see 'Codeine', right) can be addictive so prolonged use should be avoided.

Just tackling the pain does not tackle the underlying cause so if symptoms persist, you should consult your GP. Never exceed the stated dose.

Q Some painkillers market themselves as 'extra', but are they any better than ordinary painkillers?

A There's no established meaning of 'extra'. For example, Anadin Extra contains aspirin, paracetamol and caffeine, Panadol Extra contains codeine and paracetamol, and Hedex Extra is a combination of paracetamol and caffeine. The published evidence suggests that the 'extra' formulations are no more likely to work than paracetamol alone. Our advice is to keep it simple and take either paracetamol or ibuprofen as single drugs.

Q I've seen painkillers with added caffeine. What does this do?

A Some pain relief products contain the active ingredients in combination with caffeine. For example, Anadin Extra includes paracetamol, aspirin and caffeine. Manufacturers claim that the caffeine can help restrict blood vessels and increase the effectiveness of the painkiller, but the evidence isn't definitive. Caffeine can help make you feel a bit perkier, though.

Q Does it matter if I use painkillers after the expiry date?

A Experts say you should not take medicines past their use-by date. If you do so in error, painkillers are unlikely to be harmful but may be less effective.

Q Do liquid or powder painkillers relieve pain faster than solid tablets?

A Yes, a little. Painkillers have to dissolve in the stomach and be absorbed by the body to work. Liquid and soluble painkillers may do this more quickly than non-soluble tablets. But soluble tablets contain sodium (up to 0.4g per tablet). If you take eight tablets a day, you could get half your maximum recommended dietary allowance of 6g of salt just from the painkillers.

PHOTOGRAPHY JOHNNY THOMPSON, PHOTOLIBRARY

The four main types

PARACETAMOL

What is it? Paracetamol is a non-opioid, so it's non-addictive. It can relieve moderate pain, such as headache and period pain. It also lowers a high temperature, so is used in cold remedies.

How it works Scientists believe it works indirectly by blocking chemicals in the brain that help generate a sensation of pain. It does not act on the site of the pain so it can't reduce inflammation.

Risks Side effects are rare at recommended doses. It's kinder on the stomach than aspirin and ibuprofen but adults taking more than 4g a day can get liver damage. The risk is increased by heavy alcohol consumption. Don't take it with other treatments, such as cold medicines, that also contain paracetamol.

Children Paracetamol can be given to young children in appropriate doses. It can cause mild nausea in a minority of young children but this can be relieved by drinking milk.

IBUPROFEN

What is it? Ibuprofen is a non-steroidal anti-inflammatory drug (NSAID). It's used for reducing fever and for muscle aches and arthritic pain.

How it works It blocks production of pain chemicals at the site of an injury.

Risks NSAIDs can cause nausea, indigestion and diarrhoea. In some cases they can cause ulcers or stomach bleeding so aren't suitable for people with stomach ulcers or those who develop indigestion-like symptoms while taking them. Older people are at particular risk of the gastrointestinal side effects.

NSAIDs can trigger asthma so asthmatics should take care. They can also worsen high blood pressure, cause fluid retention and may lead to deterioration in the function of the kidneys. Pregnant women should avoid ibuprofen.

Children A liquid form can be given to children aged from six months.

ASPIRIN

What is it? Aspirin is an NSAID and makes the blood less sticky. It's used in low doses on medical advice to thin the blood of people at risk of strokes or heart attacks.

How it works Its anti-inflammatory effect works in the same way as ibuprofen, but it must be used in high doses for this effect.

Risks At the high doses needed to reduce swelling, people may get stomach or bowel bleeding so it isn't good as an anti-inflammatory. It should not be taken with other NSAIDs or treatments for high blood pressure, without medical advice. Be cautious if you are asthmatic or have an ulcer. Don't take it if you're pregnant or breastfeeding.

Children It's not suitable for the under-16s as it can cause potentially fatal Reyes syndrome. This starts with cold symptoms and escalates until the child is unconscious.

CODEINE

What is it? Codeine, and the related dihydrocodeine, are among the addictive group of drugs called opioids – the same family as morphine.

How it works Codeine mimics the body's natural painkillers – endorphins – which block pain receptors in the brain. It can provide additional pain relief if added to another drug in sufficient quantities. But, in general, the amount of codeine or dihydrocodeine in over-the-counter products is too little to make much difference.

Risks Opioids are addictive so codeine and dihydrocodeine are sold only in small doses. Apart from the risk of dependency, the side effects of all opiates can include constipation, nausea, vomiting and tiredness.

Children Codeine and dihydrocodeine are sold in combination with other painkillers. As the doses will vary, you must check the advice on the packet or ask the pharmacist about their suitability.