Levels of pain control

There are different types of painkillers that are effective for mild, moderate or severe pain.

On this page

- <u>Types of painkillers</u>
- Mild drugs for pain relief
- Weak opioid drugs for pain relief
- Strong opioid drugs for pain relief
- Specific types of strong opioid painkillers

Types of painkillers **Back to top**

These different types of painkillers are set out below in an 'analgesic ladder'.

- Mild pain Mild painkillers eg paracetamol or anti-inflammatory drugs eg ibuprofen (Brufen®, Neurofen®), diclofenac sodium (Voltarol®) or celecoxib (Celebrex®).
- Moderate pain Weak opioid painkillers eg dihydrocodeine (DF118 Forte®, DHC Continus®), codeine phosphate or tramadol.
- Severe pain Strong opioid painkillers eg morphine, oxycodone, fentanyl or diamorphine.

The idea behind the analgesic ladder is that if a person's pain is not controlled by the painkillers on one level, their doctor should prescribe a drug from the next level rather than try a different painkiller from the same group. For example, if you're taking a mild painkiller such as paracetamol but are still getting pain, or if your pain gets worse, your doctor should prescribe a weak opioid (moderate) painkiller such as dihydrocodeine, codeine phosphate or tramadol. If the pain still isn't controlled or if it increases, your doctor could then prescribe a strong opioid painkiller.

You don't have to start with painkillers from the mild group - if you have moderate or severe pain when you first see your doctor, you can start by taking painkillers from the second or third step of the ladder.

Often, painkillers from two different groups will be used at the same time, as they work in different ways. For example, a strong painkiller such as morphine can be used at the same time as a mild painkiller such as paracetamol or ibuprofen.

At each step of the analgesic ladder, other drugs can also be used to help to control pain. These include <u>bisphosphonates</u>, <u>steroids and anti-neuropathic drugs</u>. Although they are not painkillers, they can be used for specific types of pain.

Mild drugs for pain relief **<u>Back to top</u>**

Mild pain is treated with painkillers, such as paracetamol, and anti-inflammatory drugs.

Paracetamol can be used for a variety of mild pains. It can be bought over the counter from a chemist, and many supermarkets sell paracetamol. It has few side effects, but it's important not to exceed the recommended dose, as higher doses can damage the liver. Paracetamol does not reduce inflammation.

Anti-inflammatory drugs help reduce inflammation and swelling, and are especially good at treating pain in the skin, muscle or bone. Ibuprofen can be bought from a pharmacist or from many supermarkets. Diclofenac sodium (Voltarol®) and celecoxib (Celebrex®) need to be prescribed by a doctor.

Check with your doctor or nurse before taking anti-inflammatory medicines, as they may interact with other medicines you are taking or may not be suitable for you. Always check the recommended dose on the packet and never take a higher dose than recommended.

Remember that other medicines or tablets that you can buy over the counter from a pharmacy or supermarket (eg cold cures) may also contain paracetamol or antiinflammatory drugs such as aspirin or ibuprofen. These should not be taken in addition to other pain medicines unless advised by your doctor. Check with your pharmacist first before buying any other medicines.

Anti-inflammatory drugs can cause indigestion and may irritate the lining of the stomach, so it's important to take them after a meal or snack. Your doctor may prescribe an additional tablet to help protect your stomach. If you've had previous problems with stomach ulcers, your doctor may advise you not to take them at all.

Weak opioid drugs for pain relief **Back to top**

Moderate pain is treated with weak opioid drugs such as dihydrocodeine (DF118 Forte®, DHC Continus®), codeine phosphate or tramadol.

These are often combined with paracetamol in a single tablet (eg co-codamol, which contains codeine and paracetamol, or co-dydramol, which contains dihydrocodeine and paracetamol). Combination painkillers have brand names such as Tylex®, Remedeine®, Solpadol®, Kapake® and Tramacet®. Most are only available on prescription from a doctor. There is a limit to the number of tablets that can be taken in one day because of the paracetamol content. If your pain isn't controlled, it's important to let your doctor know so that you can be switched to stronger painkillers.

Side effects of weak opioid drugs

- <u>Constipation</u> Painkillers containing dihydrocodeine and codeine can cause constipation. Usually you'll need to take a laxative, which your doctor should prescribe for you (see section below on side effects of strong opioid drugs for more information on this). Tramadol is less likely to cause constipation than codeine and dihydrocodeine.
- **Drowsiness** This type of painkiller may also cause drowsiness, which may be increased by alcohol (see section below on side effects of strong opioid drugs for more information on this).
- **Dry mouth** Some drugs may make your mouth dry.
- <u>Sickness</u> Some people feel sick (nausea) and some may actually be sick (vomiting). If you feel sick, let your doctor know. Your doctor may prescribe anti-sickness medicines or suggest that you try an alternative painkiller.

Strong opioid drugs for pain relief **Back to top**

Severe pain is treated with strong opioid drugs.

Commonly used strong opioids are:

- morphine
- fentanyl
- oxycodone
- buprenorphine
- diamorphine.

Less commonly used strong opioids are:

- hydromorphone
- methadone
- alfentanil.

With this type of painkiller, it's important for your doctor to find the most effective dose for you. Two people with the same type of cancer may need different doses of a drug, even if they're at the same stage of their illness.

It's common to start at a low dose and build up gradually to a dose that controls your pain. Other painkillers, such as paracetamol or anti-inflammatory drugs, can also be used with a strong opioid painkiller to help keep pain controlled.

If your pain increases or decreases, the dose of your opioid painkiller can be adjusted. You may only need a small dose increase to get your pain under control again. But if your pain is bad, your doctors may increase the dose by a larger amount - this is more likely to get on top of your pain than a smaller dose increase.

Side effects of strong opioid painkillers

It can take a few days to adjust to taking strong opioid painkillers. The most common side effects are:

- **Drowsiness** This usually passes within a few days once you're used to the dose. Alcohol may increase drowsiness so if you do drink alcohol, it's best to reduce your intake when you start taking strong painkillers. You can then gradually increase it if drowsiness isn't a problem.
- <u>Feeling tired</u> Painkillers may also make you feel tired. You can talk to your GP about how this may affect you at home and at work. If you're planning to drive or work with machinery, you should check with your GP before taking strong opioid painkillers. Don't drive if you don't feel fully alert or if your reactions are slowed.
- **Constipation** All strong opioid painkillers cause constipation. If you're taking strong painkillers, you should also take a laxative throughout your treatment. Some laxatives soften stools and make them easier to pass while others stimulate the bowel to push the stools along more quickly. A combination of these two types is often best at preventing constipation.
- **Sickness** You may feel sick when you first start taking strong opioid painkillers, so you may need to take an anti-sickness (anti-emetic) drug for at least the first week of treatment. If you have sickness that doesn't settle after 7 days, let your doctor know. Changing to another strong painkiller may help stop the sickness.
- **Dry mouth** These drugs can make your mouth dry, which can be a nuisance. This symptom can be relieved by drinking plenty of liquids. Chewing gum can also help.
- Other effects If the dose of a strong opioid painkiller is too high, it can cause symptoms such as marked drowsiness, confusion, hallucinations (seeing things that are not real), slow and deep breathing, and low blood pressure, which may make you feel dizzy or faint. Let your doctor know straightaway if you experience any of these effects.

Remember that although all strong opioid painkillers cause similar side effects, some may suit you better than others. If your pain is not well controlled, or if the side effects are a problem, tell your doctor or nurse so that your dose can be adjusted or another type of strong painkiller can be tried.

Specific types of strong opioid painkillers Back to top

Strong opioids such as morphine, fentanyl, oxycodone, buprenorphine and diamorphine are all commonly used, but hydromorphone, methadone and alfentanil are less commonly used. The text below describes the drugs, how they can be given and some possible side effects.

Morphine

Morphine can be taken in various ways:

• short-acting tablets (Sevredol®)

- long-acting tablets and capsules (Morphgesic® SR, MST Continus®, MXL®, Zomorph®)
- short-acting syrups (Oramorph®)
- long-acting granules to mix with water (MST Continus®)
- suppositories, which are usually short acting, inserted into the back passage (morphine)
- a short-acting injection (morphine sulphate).

A short-acting type of morphine is usually taken every four hours to begin with so that the dose can be adjusted until the pain is well controlled. It's usually taken as a tablet or a liquid. Liquid morphine has a bitter taste that can be improved by mixing it with a fruit drink.

Once the right dose has been worked out, you will be able to take long-acting tablets, capsules or granules to mix with water. These release the morphine dose very slowly over a period of either 12 or 24 hours, depending on which type you are taking.

If you're not able to swallow or are vomiting, morphine (as well as diamorphine and oxycodone) can be given by injection or as an infusion using a <u>syringe driver</u>. Occasionally morphine suppositories are used.

Side effects

Morphine has the usual side effects of strong painkillers. Some people find that the side effects of morphine can't be controlled. They may have ongoing drowsiness or sickness that isn't relieved by the usual medicines. In this case, it's likely that your doctor will switch you to another strong opioid painkiller such as oxycodone or fentanyl. Side effects of painkillers vary from person to person and from one drug to another, so it's usually possible to find another drug that suits you better.

Fentanyl

Fentanyl is usually given as a skin patch or as a buccal medicine.

The patches (Durogesic DTrans®) look like waterproof plasters. They are stuck on to the skin, and the drug is released slowly through the skin. The patch is usually changed every three days, and the new patch is put on a different area of skin. The patches can be convenient, as you don't need to remember to take tablets regularly. When the patch is first used, it takes around 12-24 hours for the fentanyl to reach its maximum level in the blood. During this time you'll usually need to take a short-acting strong opioid such as morphine to keep the pain controlled.

There are two buccal preparations: a short-acting lozenge (Actiq®) and a buccal tablet (Effentora®). The lozenge and tablet are placed in the mouth between the cheek and the gum. They are absorbed from the soft tissues lining the cheek area and act quickly to reduce pain. They work best for <u>breakthrough pain</u>.

Fentanyl can also be given as a nasal spray or as a tablet that is placed under the tongue (sublingual).

Side effects

The side effects are the same as for all strong painkillers, although the patches may also cause a slight skin rash where they are applied. For some people, fentanyl causes less constipation than other types of opioid drugs. When using the skin patch, warmth can make the fentanyl absorb more quickly through the skin. So if you have a high temperature, it's important to let your doctor or nurse know immediately. It's also important to avoid heating the skin patch, so care should be taken when going out in the sun, bathing, showering or using a heat pad near the patch.

For the following drugs, the general side effects for strong opioid painkillers (see above) apply.

Oxycodone

Oxycodone is given as short-acting capsules or liquid (OxyNorm®), which are taken every 4-6 hours, or long-acting tablets (OxyContin®), which are taken every 12 hours. It may be used if morphine causes too many side effects or doesn't control the pain well enough.

Oxycodone can also be given by injection or continuously in a syringe driver.

Buprenorphine

Buprenorphine may be given as:

- a patch (Transtec[®]) that is changed every 3-4 days
- a patch (BuTrans[®]) that is changed every seven days
- a tablet (Temgesic[®]) that is dissolved under the tongue every 6-8 hours.

Diamorphine

Diamorphine may be used for people who can't swallow and who need to have their painkillers given by injection or continuously by a syringe driver.

Hydromorphone

Hydromorphone is available as short-acting capsules (Palladone®) and long-acting capsules (Palladone® SR).

Methadone

Methadone may be given as tablets or syrup or injection. It's usually only given under close supervision from a specialist palliative care doctor or pain doctor. Methadone may be helpful for <u>neuropathic pain</u>.

Alfentanil

Alfentanil is another strong painkiller that is only given by <u>injection or subcutaneous</u> <u>infusion</u>. It's more likely to be used if someone's kidney function is poor.

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On this page

- <u>Types of painkillers</u>
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- Weak opioid drugs for pain relief
- <u>Strong opioid drugs for pain relief</u>
- Specific types of strong opioid painkillers

Types of painkillers **Back to top**

These different types of painkillers are set out below in an 'analgesic ladder'.

- Mild pain Mild painkillers eg paracetamol or anti-inflammatory drugs eg ibuprofen (Brufen®, Neurofen®), diclofenac sodium (Voltarol®) or celecoxib (Celebrex®).
- Moderate pain Weak opioid painkillers eg dihydrocodeine (DF118 Forte®, DHC Continus®), codeine phosphate or tramadol.
- Severe pain Strong opioid painkillers eg morphine, oxycodone, fentanyl or diamorphine.

The idea behind the analgesic ladder is that if a person's pain is not controlled by the painkillers on one level, their doctor should prescribe a drug from the next level rather than try a different painkiller from the same group. For example, if you're taking a mild painkiller such as paracetamol but are still getting pain, or if your pain gets worse, your doctor should prescribe a weak opioid (moderate) painkiller such as dihydrocodeine, codeine phosphate or tramadol. If the pain still isn't controlled or if it increases, your doctor could then prescribe a strong opioid painkiller.

You don't have to start with painkillers from the mild group - if you have moderate or severe pain when you first see your doctor, you can start by taking painkillers from the second or third step of the ladder.

Often, painkillers from two different groups will be used at the same time, as they work in different ways. For example, a strong painkiller such as morphine can be used at the same time as a mild painkiller such as paracetamol or ibuprofen.

At each step of the analgesic ladder, other drugs can also be used to help to control pain. These include <u>bisphosphonates</u>, <u>steroids and anti-neuropathic drugs</u>. Although they are not painkillers, they can be used for specific types of pain.

Mild drugs for pain relief **Back to top**

Mild pain is treated with painkillers, such as paracetamol, and anti-inflammatory drugs.

Paracetamol can be used for a variety of mild pains. It can be bought over the counter from a chemist, and many supermarkets sell paracetamol. It has few side effects, but it's important not to exceed the recommended dose, as higher doses can damage the liver. Paracetamol does not reduce inflammation.

Anti-inflammatory drugs help reduce inflammation and swelling, and are especially good at treating pain in the skin, muscle or bone. Ibuprofen can be bought from a pharmacist or from many supermarkets. Diclofenac sodium (Voltarol®) and celecoxib (Celebrex®) need to be prescribed by a doctor.

Check with your doctor or nurse before taking anti-inflammatory medicines, as they may interact with other medicines you are taking or may not be suitable for you. Always check the recommended dose on the packet and never take a higher dose than recommended.

Remember that other medicines or tablets that you can buy over the counter from a pharmacy or supermarket (eg cold cures) may also contain paracetamol or antiinflammatory drugs such as aspirin or ibuprofen. These should not be taken in addition to other pain medicines unless advised by your doctor. Check with your pharmacist first before buying any other medicines.

Anti-inflammatory drugs can cause indigestion and may irritate the lining of the stomach, so it's important to take them after a meal or snack. Your doctor may prescribe an additional tablet to help protect your stomach. If you've had previous problems with stomach ulcers, your doctor may advise you not to take them at all.

Weak opioid drugs for pain relief **Back to top**

Moderate pain is treated with weak opioid drugs such as dihydrocodeine (DF118 Forte®, DHC Continus®), codeine phosphate or tramadol.

These are often combined with paracetamol in a single tablet (eg co-codamol, which contains codeine and paracetamol, or co-dydramol, which contains dihydrocodeine and

paracetamol). Combination painkillers have brand names such as Tylex®, Remedeine®, Solpadol®, Kapake® and Tramacet®. Most are only available on prescription from a doctor. There is a limit to the number of tablets that can be taken in one day because of the paracetamol content. If your pain isn't controlled, it's important to let your doctor know so that you can be switched to stronger painkillers.

Side effects of weak opioid drugs

- <u>Constipation</u> Painkillers containing dihydrocodeine and codeine can cause constipation. Usually you'll need to take a laxative, which your doctor should prescribe for you (see section below on side effects of strong opioid drugs for more information on this). Tramadol is less likely to cause constipation than codeine and dihydrocodeine.
- **Drowsiness** This type of painkiller may also cause drowsiness, which may be increased by alcohol (see section below on side effects of strong opioid drugs for more information on this).
- **Dry mouth** Some drugs may make your mouth dry.
- <u>Sickness</u> Some people feel sick (nausea) and some may actually be sick (vomiting). If you feel sick, let your doctor know. Your doctor may prescribe anti-sickness medicines or suggest that you try an alternative painkiller.

Strong opioid drugs for pain relief Back to top

Severe pain is treated with strong opioid drugs.

Commonly used strong opioids are:

- morphine
- fentanyl
- oxycodone
- buprenorphine
- diamorphine.

Less commonly used strong opioids are:

- hydromorphone
- methadone
- alfentanil.

With this type of painkiller, it's important for your doctor to find the most effective dose for you. Two people with the same type of cancer may need different doses of a drug, even if they're at the same stage of their illness.

It's common to start at a low dose and build up gradually to a dose that controls your pain. Other painkillers, such as paracetamol or anti-inflammatory drugs, can also be used with a strong opioid painkiller to help keep pain controlled.

If your pain increases or decreases, the dose of your opioid painkiller can be adjusted. You may only need a small dose increase to get your pain under control again. But if your pain is bad, your doctors may increase the dose by a larger amount - this is more likely to get on top of your pain than a smaller dose increase.

Side effects of strong opioid painkillers

It can take a few days to adjust to taking strong opioid painkillers. The most common side effects are:

- **Drowsiness** This usually passes within a few days once you're used to the dose. Alcohol may increase drowsiness so if you do drink alcohol, it's best to reduce your intake when you start taking strong painkillers. You can then gradually increase it if drowsiness isn't a problem.
- <u>Feeling tired</u> Painkillers may also make you feel tired. You can talk to your GP about how this may affect you at home and at work. If you're planning to drive or work with machinery, you should check with your GP before taking strong opioid painkillers. Don't drive if you don't feel fully alert or if your reactions are slowed.
- **Constipation** All strong opioid painkillers cause constipation. If you're taking strong painkillers, you should also take a laxative throughout your treatment. Some laxatives soften stools and make them easier to pass while others stimulate the bowel to push the stools along more quickly. A combination of these two types is often best at preventing constipation.
- **Sickness** You may feel sick when you first start taking strong opioid painkillers, so you may need to take an anti-sickness (anti-emetic) drug for at least the first week of treatment. If you have sickness that doesn't settle after 7 days, let your doctor know. Changing to another strong painkiller may help stop the sickness.
- **Dry mouth** These drugs can make your mouth dry, which can be a nuisance. This symptom can be relieved by drinking plenty of liquids. Chewing gum can also help.
- Other effects If the dose of a strong opioid painkiller is too high, it can cause symptoms such as marked drowsiness, confusion, hallucinations (seeing things that are not real), slow and deep breathing, and low blood pressure, which may make you feel dizzy or faint. Let your doctor know straightaway if you experience any of these effects.

Remember that although all strong opioid painkillers cause similar side effects, some may suit you better than others. If your pain is not well controlled, or if the side effects are a problem, tell your doctor or nurse so that your dose can be adjusted or another type of strong painkiller can be tried.

Specific types of strong opioid painkillers Back to top

Strong opioids such as morphine, fentanyl, oxycodone, buprenorphine and diamorphine are all commonly used, but hydromorphone, methadone and alfentanil are less commonly

used. The text below describes the drugs, how they can be given and some possible side effects.

Morphine

Morphine can be taken in various ways:

- short-acting tablets (Sevredol®)
- long-acting tablets and capsules (Morphgesic® SR, MST Continus®, MXL®, Zomorph®)
- short-acting syrups (Oramorph®)
- long-acting granules to mix with water (MST Continus®)
- suppositories, which are usually short acting, inserted into the back passage (morphine)
- a short-acting injection (morphine sulphate).

A short-acting type of morphine is usually taken every four hours to begin with so that the dose can be adjusted until the pain is well controlled. It's usually taken as a tablet or a liquid. Liquid morphine has a bitter taste that can be improved by mixing it with a fruit drink.

Once the right dose has been worked out, you will be able to take long-acting tablets, capsules or granules to mix with water. These release the morphine dose very slowly over a period of either 12 or 24 hours, depending on which type you are taking.

If you're not able to swallow or are vomiting, morphine (as well as diamorphine and oxycodone) can be given by injection or as an infusion using a <u>syringe driver</u>. Occasionally morphine suppositories are used.

Side effects

Morphine has the usual side effects of strong painkillers. Some people find that the side effects of morphine can't be controlled. They may have ongoing drowsiness or sickness that isn't relieved by the usual medicines. In this case, it's likely that your doctor will switch you to another strong opioid painkiller such as oxycodone or fentanyl. Side effects of painkillers vary from person to person and from one drug to another, so it's usually possible to find another drug that suits you better.

Fentanyl

Fentanyl is usually given as a skin patch or as a buccal medicine.

The patches (Durogesic DTrans®) look like waterproof plasters. They are stuck on to the skin, and the drug is released slowly through the skin. The patch is usually changed every three days, and the new patch is put on a different area of skin. The patches can be convenient, as you don't need to remember to take tablets regularly. When the patch is

first used, it takes around 12-24 hours for the fentanyl to reach its maximum level in the blood. During this time you'll usually need to take a short-acting strong opioid such as morphine to keep the pain controlled.

There are two buccal preparations: a short-acting lozenge (Actiq®) and a buccal tablet (Effentora®). The lozenge and tablet are placed in the mouth between the cheek and the gum. They are absorbed from the soft tissues lining the cheek area and act quickly to reduce pain. They work best for <u>breakthrough pain</u>.

Fentanyl can also be given as a nasal spray or as a tablet that is placed under the tongue (sublingual).

Side effects

The side effects are the same as for all strong painkillers, although the patches may also cause a slight skin rash where they are applied. For some people, fentanyl causes less constipation than other types of opioid drugs. When using the skin patch, warmth can make the fentanyl absorb more quickly through the skin. So if you have a high temperature, it's important to let your doctor or nurse know immediately. It's also important to avoid heating the skin patch, so care should be taken when going out in the sun, bathing, showering or using a heat pad near the patch.

For the following drugs, the general side effects for strong opioid painkillers (see above) apply.

Oxycodone

Oxycodone is given as short-acting capsules or liquid (OxyNorm®), which are taken every 4-6 hours, or long-acting tablets (OxyContin®), which are taken every 12 hours. It may be used if morphine causes too many side effects or doesn't control the pain well enough.

Oxycodone can also be given by injection or continuously in a syringe driver.

Buprenorphine

Buprenorphine may be given as:

- a patch (Transtec[®]) that is changed every 3-4 days
- a patch (BuTrans[®]) that is changed every seven days
- a tablet (Temgesic®) that is dissolved under the tongue every 6-8 hours.

Diamorphine

Diamorphine may be used for people who can't swallow and who need to have their painkillers given by injection or continuously by a syringe driver.

Hydromorphone

Hydromorphone is available as short-acting capsules (Palladone®) and long-acting capsules (Palladone® SR).

Methadone

Methadone may be given as tablets or syrup or injection. It's usually only given under close supervision from a specialist palliative care doctor or pain doctor. Methadone may be helpful for <u>neuropathic pain</u>.

Alfentanil

Alfentanil is another strong painkiller that is only given by <u>injection or subcutaneous</u> <u>infusion</u>. It's more likely to be used if someone's kidney function is poor.