

How does taking antibiotics lead to antibiotic resistance?

Whenever antibiotics are used, harmless bacteria that live on our bodies can become resistant to these antibiotics. When bacteria develop resistance to different types of antibiotics, they are called multi-resistant bacteria or 'superbugs'.

Infections caused by superbugs are more difficult to treat or may be untreatable. Superbugs cause:

- Infections that can only be treated with stronger antibiotics that have more side effects and risks
- Infections that can only be treated with injectable antibiotics
- Infections where there is no effective antibiotic treatment.

Some resistant bacteria can also spread to other residents in the aged care home.

Key messages

- Antibiotics are precious and powerful drugs
- Antibiotics can cause side effects and older people are more prone to this
- Certain infections get better without antibiotics
- Antibiotic resistance in bacteria means certain antibiotics may not work in the future.

What if I have questions about antibiotics?

Talk to your aged care home staff and doctor if you have any questions about your antibiotics. Ask:

- What is this antibiotic? What condition is it being prescribed for?
- Can my condition get better without antibiotics?
- Have you done any tests to help with diagnosing the infection? When will the results be available?
- Are there any other treatments and care recommended?
- What are the risks or side effects of this antibiotic?
- How long do I need to take this antibiotic?
- Are there any instructions on the way I should take the antibiotic to make sure it works well? (Some antibiotics work best with food, or on an empty stomach, or separated from other medications)
- Will it interact with my other medications? (for example, some antibiotics can interact with blood thinners such as warfarin)
- How will you know that the antibiotic is working for my infection?

You can ask your aged care home staff or doctor for written information about the antibiotic being recommended or about your infection.



Australian Government

Aged Care Quality and
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Do you need antibiotics?

Information about antibiotics for aged care residents and their families, carers and representatives.

1800 951 822

agedcarequality.gov.au



**Better use
of antibiotics**

Why are antibiotics important to you?

Antibiotics are precious and powerful drugs – and they should only be used for specific purposes.

They can be helpful against many bacterial infections such as infections of the urinary tract, skin and respiratory system. They can be life-saving for serious infections such as sepsis. When antibiotics are needed, their benefits outweigh the risks of side effects and antibiotic resistance.

But antibiotics are **not always needed**. When they aren't needed, they won't help you, and the side effects could still cause harm and contribute to antibiotic resistance.

What don't antibiotics treat?

- many upper respiratory tract infections that are caused by viruses
- some bacterial infections that get better quickly even without antibiotics. Examples of this are bronchitis, sinus and ear infections
- harmless bacteria in conditions where there are no symptoms or signs of infection. Examples of this would be asymptomatic bacteriuria (harmless bacteria in the urine detected on testing with dipstick or urine culture), or uninfected skin wounds
- when used for prevention of infection (prophylaxis). Examples of this are skin antifungal creams used for months, or oral antibiotics started just in case infection may develop used for months, sometimes years.

What are possible antibiotic side effects and risks?

Antibiotic side effects are common, and older people are at increased risk. Common side effects are:

- Loss of appetite/ reduced eating and drinking
- Nausea
- Diarrhoea
- Yeast infections such as thrush
- Rash

Antibiotics can also have other, sometimes more serious, side effects and risks:

- Life-threatening allergic reactions
- Interactions between antibiotics and other medications
- Infections with antibiotic resistant bacteria, because exposure to an antibiotic may allow bacteria (including harmless bacteria) on your body to adapt so they are no longer killed by that antibiotic
- *C. difficile* (or *C. diff*) infection which is a gastrointestinal illness caused when good bacteria in your gut are destroyed by antibiotics. *C. diff* infection causes abdominal pain, nausea and diarrhoea. It can lead to severe bowel damage and can be spread to other people. The risk of *C. diff* infection lasts for months even after antibiotics have been stopped.

One in five prescriptions are for prevention of infection, and many of these may not be required.

Seven in ten residents receive one or more antibiotic courses a year. Some of these courses may not be necessary. If a doctor plans to prescribe an antibiotic for you, ask them to explain why first.

How can I stay healthy?

You can stay healthy and keep others healthy by:

- Performing hand hygiene often by washing your hands with soap and water after going to the toilet and using alcohol-based handrub before touching others or eating
- Insisting healthcare professionals and visitors clean their hands before touching you or caring for your wound
- Covering your cough to prevent the spread of germs
- Asking family or friends not to visit when they don't feel well
- Staying in your room when sick
- Protecting yourself by getting vaccines for flu, COVID-19 and pneumonia and encouraging others around you to do the same.

For more information about this, speak to your aged care home staff and doctor.

Smart use of antibiotics today makes sure antibiotics work tomorrow.