Acute bronchitis: Should I take antibiotics?

What is this decision aid for?
- This decision aid can help you decide whether to use antibiotics when you or your child has acute bronchitis (acute cough).
- It is designed to be used with your doctor to help you make a shared decision about what is best for you or your child.

What causes acute bronchitis?
- It can be caused by a viral or bacterial infection. It is hard for your doctor to tell which it is.
- The infection is in the airway (bronchi) leading to the lungs. Acute means it is a short-term infection.

How long does the cough last?
The cough will usually get better by about 10–20 days, without talking antibiotics.

What are the treatment options?
There are two options that you can discuss with your doctor:

1. **Not taking antibiotics** – This means letting the infection get better by itself.
2. **Taking antibiotics**.

Symptoms, such as fever, can be treated with over-the-counter medicines. They can be used with either option.

What are the likely benefits and harms of each option?

<table>
<thead>
<tr>
<th>DAYS</th>
<th>WITHOUT antibiotics</th>
<th>WITH antibiotics</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>The cough lasts, on average, about 168 hours (7 days)</td>
<td>The cough lasts, on average, about 156 hours (6.5 days)</td>
</tr>
<tr>
<td>1</td>
<td>121 hours less than people who do not take antibiotics</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>122 hours less than people who do not take antibiotics</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>123 hours less than people who do not take antibiotics</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>124 hours less than people who do not take antibiotics</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>125 hours less than people who do not take antibiotics</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>126 hours less than people who do not take antibiotics</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>127 hours less than people who do not take antibiotics</td>
<td></td>
</tr>
</tbody>
</table>

People who take antibiotics have the cough for only about 12 hours less than people who do not take antibiotics.
These figures show what is likely happen to people with acute cough who do not take antibiotics and those who do. Each circle is one person. We can’t predict who will get better sooner or who will have problems.

### Possible benefits

- Gets better by 1–2 weeks
- Gets better by 1–2 weeks due to antibiotics
- Not better by 1–2 weeks

**Possible harms**

- Has problems
- Has problems due to antibiotics
- No problems

**Possible benefits**

<table>
<thead>
<tr>
<th>100 people who DO NOT take antibiotics</th>
<th>100 people who DO take antibiotics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Will be better (no cough) at 1–2 weeks</td>
<td>Will have problems such as vomiting, diarrhoea or rash</td>
</tr>
<tr>
<td>50</td>
<td>19</td>
</tr>
<tr>
<td>Not better</td>
<td>32</td>
</tr>
<tr>
<td>50</td>
<td>81</td>
</tr>
<tr>
<td>Not better</td>
<td>No problems</td>
</tr>
<tr>
<td>32</td>
<td>77</td>
</tr>
</tbody>
</table>

With antibiotics, 18 more people will be better after 1–2 weeks.

With antibiotics, 4 more people will have problems such as vomiting, diarrhoea or rash. Other antibiotic downsides are:
- The cost of buying them
- Remembering to take them
- The risk of antibiotic resistance (see below).

### Where do these estimates of benefits and harms come from?

- They are from the most up-to-date medical evidence of benefits and harms about what works best. This is a review of 17 studies, and over 5,000 people, that looked at antibiotic use in people with acute bronchitis.
- The quality of this research evidence is ranked as high. This means that further research is very unlikely to change these estimates.

### Why might antibiotics be used?

If the infection is in the lung, it is called pneumonia. This is not common, however if you have pneumonia, it can be serious. Your doctor may also talk with you about why antibiotics might be needed, such as if you have a chronic disease. Coughing up coloured phlegm (spit) is not a sign that antibiotics are needed.

### What is antibiotic resistance?

- Using antibiotics means the bacteria, including the healthy ones in your body, can develop resistance to the antibiotic.
- This means that antibiotics may not work if you or your child needs them in the future to treat a bacterial infection.
- A person who has recently used antibiotics is more likely to have resistant bacteria in their body.

### Are there other things I can do to manage acute bronchitis?

- Some people find that taking honey for a day or two helps to settle the cough. Take one to two teaspoons, just before bedtime. The honey can be given in a drink such as warm water. Honey should not be given to children less than 12 months old.
- Fever is best treated with over-the-counter paracetamol and/or ibuprofen. Do not give more than the maximum recommended dose. Read the dose information on the packet.
- Aspirin should NOT be used with children who are younger than 16 years.
When should you see a doctor and get further help?

If the person with the cough has any of these signs:

- Very drowsy
- Fast or difficult breathing, wheezing, or shortness of breath
- Cold or discoloured hands and/or feet with a warm body
- Pain in the arms and/or legs
- Coughing blood

- Unusual skin colour (pale or blue) around the lips
- A rash that does not fade when the skin is pressed.

Questions to consider when talking with your doctor

- Do I need antibiotics?
- What happens if I do not take antibiotics?
- Do I know enough about the benefits and harms of:
  - taking antibiotics?
  - not taking antibiotics?
- Am I clear about which benefits and harms matter most to me?
- Do I have enough information and support to decide?

References


The information in this decision aid is provided for general information only. It is not intended as medical advice and should not be relied upon as a substitute for consultations with a qualified health professional who can determine you or your child's individual medical needs.

Last reviewed: July 2020. Update due: July 2022. Decision Aids funded by the Australian Commission on Safety and Quality in Health Care and developed by Professor Tammy Hoffmann, Professor Chris Del Mar, and Mr Peter Coxeter – Institute for Evidence-Based Healthcare, Bond University.