Should I take alendronate (Fosamax®) for osteoporosis?
A Cochrane decision aid to discuss options with your doctor

This decision aid is for you if **ALL** of these factors apply to you:

- You are a woman who has been through menopause
- You have broken a bone recently
- Your doctor has told you that you have osteoporosis, osteopenia or low bone density
- Your doctor has offered you alendronate (Fosamax®)

**How is osteoporosis managed?**

Osteoporosis is a disease that makes your bones weaker and more prone to breaking. Throughout your lifetime, new bone cells grow and old bone cells break down to make room for the new, stronger bone. When you have osteoporosis old bone breaks down faster than it can be replaced. As this happens, the bones lose minerals (such as calcium). This makes bones weaker and more likely to break even after a minor injury, like a little bump or fall. Women who have gone through menopause are more likely to get osteoporosis than other people. You may already be doing things on your own to manage your osteoporosis; such as walking regularly or taking other exercise, and taking Vitamin D and calcium supplements.

People with osteoporosis and recent broken bones are advised to take treatments such as alendronate. Alendronate slows down the loss of minerals in your bone. The goal of alendronate treatment is to help prevent you from breaking another bone. Although alendronate is commonly offered first there are other options such as other bisphosphate medications.

**What are your treatment options?**

- **Take alendronate:** Once a day or once a week, you take a pill in the morning 30 minutes before eating. After you take it, you must remain standing or sitting up for 30 minutes.

- **Decline alendronate.** You may wish to discuss other treatment options with your doctor.

**What other factors may affect your choice?**
Check ☑ any that apply and discuss your concerns with your doctor.

- I suffer from stomach or esophagus problems, such as ulcers.
- I am taking corticosteroid pills.
- I am taking chemotherapy for cancer.

*Working through the 4 steps of this decision aid may help you consider the options.*
**Step 1: What are the benefits and harms of each option?**

Blocks of 100 faces show a 'best estimate' of what happens to **100 women** over 1 to 4 years who either take or decline alendronate. Each face (😊) stands for one person. The shaded areas show the number of people affected. There is no way of knowing in advance if you will be one of those affected.

### Benefits +++

5 **fewer** women **break a hip** if they take alendronate.

<table>
<thead>
<tr>
<th>Treatments</th>
<th>Take alendronate</th>
<th>Take placebo</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Avoid breaking a hip</strong></td>
<td>96</td>
<td>91</td>
</tr>
<tr>
<td><strong>Break a hip</strong></td>
<td>🙁🙁{}, {}{}, {}, {}</td>
<td>😞{}, {}, {}, {}</td>
</tr>
</tbody>
</table>

### Side Effects ++

There is **no difference** in the number of women who stop treatment due to side effects such as stomach problems or ulcers in the esophagus. **This may have happened by chance.**

<table>
<thead>
<tr>
<th>Treatments</th>
<th>Take alendronate</th>
<th>Take placebo</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Avoid side effects</strong></td>
<td>91</td>
<td>91</td>
</tr>
<tr>
<td><strong>Stop treatment</strong></td>
<td>🙁🙁{}, {}, {}, {}</td>
<td>😞{}, {}, {}, {}</td>
</tr>
</tbody>
</table>

### Serious Harms +

Few women have serious harms. If 10,000 **people** take alendronate for an average of 2 years, one more person may have severe jaw damage from taking it.

<table>
<thead>
<tr>
<th>Treatments</th>
<th>Take alendronate</th>
<th>Take placebo</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Avoid jaw damage</strong></td>
<td>9,999</td>
<td>10,000</td>
</tr>
<tr>
<td><strong>Has jaw damage</strong></td>
<td>🙁{}, {}, {}, {}</td>
<td>😞{}, {}, {}, {}</td>
</tr>
</tbody>
</table>

Note: The options include ‘estimates’ of what happens to groups of people based on the available research. The quality of these estimates is summarized using the GRADE system as follows:

- ++++ **High** quality – further research is **very unlikely to change** the estimate.
- +++ **Moderate** quality – further research **may change** the estimate.
- ++ **Low** quality – further research is **likely to change** the estimate.
- + **Very low** quality – further research is **very likely to change** the estimate.
**Step 2. What matters most to you?**

Common reasons to choose each option are listed below. Check ☒ how much each reason matters to you on a scale from 0 to 5. ‘0’ means it is not important to you. ‘5’ means it is very important to you.

<table>
<thead>
<tr>
<th>Reasons to take alendronate</th>
<th>Not Important</th>
<th>Very Important</th>
</tr>
</thead>
<tbody>
<tr>
<td>How important is it to you to avoid breaking a hip?</td>
<td>☐ ☐ ☐ ☐ ☐ ☐</td>
<td>☐ ☐ ☐ ☐ ☐ ☐</td>
</tr>
<tr>
<td>How important is it to you to slow down the loss of minerals in your bones?</td>
<td>☐ ☐ ☐ ☐ ☐ ☐</td>
<td>☐ ☐ ☐ ☐ ☐ ☐</td>
</tr>
<tr>
<td>List other reasons to take alendronate:</td>
<td>☐ ☐ ☐ ☐ ☐ ☐</td>
<td>☐ ☐ ☐ ☐ ☐ ☐</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Reasons to decline alendronate</th>
<th>Not Important</th>
<th>Very Important</th>
</tr>
</thead>
<tbody>
<tr>
<td>How important is it to you to avoid the inconvenience of taking medicine before breakfast and remaining upright for 30 minutes?</td>
<td>☐ ☐ ☐ ☐ ☐ ☐</td>
<td>☐ ☐ ☐ ☐ ☐ ☐</td>
</tr>
<tr>
<td>How important is it to you to avoid very rare but serious damage to your jaw?</td>
<td>☐ ☐ ☐ ☐ ☐ ☐</td>
<td>☐ ☐ ☐ ☐ ☐ ☐</td>
</tr>
<tr>
<td>List other reasons to decline alendronate:</td>
<td>☐ ☐ ☐ ☐ ☐ ☐</td>
<td>☐ ☐ ☐ ☐ ☐ ☐</td>
</tr>
</tbody>
</table>

Now, thinking about the reasons that are most important to you…

**Which option do you prefer?**
Check ☒ one.

- ☐ I don’t know
- ☐ Take alendronate
- ☐ Decline alendronate
- ☐ Discuss other treatment options
**Step 3: What else do you need to prepare for decision making?**

**Knowledge**
Find out how well this decision aid helped you learn the key facts.

Check ✔ the best answer.

1. Which option lowers your chance of a broken hip?  
   - Take alendronate  
   - Decline alendronate  
   - I don’t know

2. Which option requires you to take pills before breakfast?  
   - Take alendronate  
   - Decline alendronate  
   - I don’t know

3. Which option slows the loss of minerals from bones.  
   - Take alendronate  
   - Decline alendronate  
   - I don’t know

4. Which option has the lowest chance of jaw damage?  
   - Take alendronate  
   - Decline alendronate  
   - I don’t know

Check your answers at the bottom of the page.

Do you know enough about the benefits and harms of each option?  
Yes  
No

**Values**
Are you clear about which benefits and harms matter most to you?  
Yes  
No

**Support**
Do you have enough support and advice from others to make a choice?  
Yes  
No

**Uncertainty**
Do you feel sure about the best choice for you?  
Yes  
No

**Step 4: What are the next steps?**

Check ✔ what you want to do next…

- Try alendronate
- Discuss other treatment options
- Other, please specify:

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