Should you take alendronate for osteoporosis?

A Cochrane Decision Aid for patients and doctors to discuss options

1. Why are you being offered alendronate for osteoporosis?

- Osteoporosis (also called <u>low bone density</u>) weakens your bones and causes the loss of minerals like calcium. It is more common in women after menopause. You are more likely to break a hip, wrist or spine after a bump or fall. You may already be managing osteoporosis with regular walking or exercise, Vitamin D and calcium supplements.
- Alendronate is an option if you are a woman who has been through menopause, broken a bone recently, and told you have osteoporosis. It may prevent another bone break. There are other options including other drugs.

2. What are your options?



Take alendronate: You take a pill by mouth and must sit upright or stand for 30 minutes before eating in the morning to avoid esophagus irritation. Depending on the dose, it is taken once a day or once a week.



Not take alendronate. You may wish to discuss other treatment options with your doctor.

3. What do you think of the benefits and risks of each option?

- a) Shown below are the <u>best estimates</u> of what happens to 100 women with osteoporosis who take or do not take alendronate over 1 to 4 years. <u>Link to a more detailed table.</u>
- b) Review the table, add other reasons you may have to choose/avoid options and rate each benefit and risk using stars to show how much each one matters to you.
- c) Other information to consider: allergies, cost, safe with other drugs, length of treatment, ways to manage side effects and changes in side effects over time.

	Take alendronate	Not take alendronate	How much does this matter to you? 0★ (not at all) 5★ (a great deal)	
Benefits or Reasons to Choose alendronate				
5 fewer women break a hip [+++]	4 out of 100	9 out of 100	****	
It slows down the loss of minerals in the bones	Yes No		****	
Add other reasons to choose alendronate:		****		
Risks or Reasons to Avoid alendronate				
The same number of women stop treatment with both options due to side effects (such as stomach problems or ulcers in the esophagus) [++]				
1 more woman has serious harms (jaw damage) if 10,000 women take alendronate for about 2 years	1 out of 10,000	0 out of 10,000	****	
Inconvenience of taking alendronate (sitting upright or standing for 30 minutes before eating in the morning)	Yes	No	****	
Add other reasons to avoid alendronate:			****	
4. Which option do you prefer? ☐ Take alendron 5. What are your decision making needs?	ate □ Not	take alendronate	□ Unsure	
5. What are your decision making needs? Do you feel sure about the best choice for you? Do you know the benefits and risks of each option Are you clear about which benefits and risks maked the property of the property o	tter most to you?	☐ Yes ☐ Yes ☐ Yes ☐ Yes	☐ No ☐ No ☐ No ☐ No The SURE Test	

Last reviewed: September 2014. Update due: September 2016. Developed using these references by an expert team. Based on the Ottawa Consult Decision Aid ©2013 Stacey, Légaré, O'Connor, OHRI & uOttawa, Canada. Development funded by Cochrane Innovations Limited. Funders, authors, and their affiliations do not stand to gain or lose by choices patients make after using the patient decision aid. Average reading level is Flesch Grade Level: 8.0.

Hyperlink to extra Information

What does the research show? Blocks of 100 faces show a 'best estimate' of what happens to 100 women with osteoporosis who either take alendronate or placebo (fake treatment) over 1 to 4 years. Each face \oplus is one person. The shaded areas show the number of people affected. There is no way of knowing in advance if you will be affected.

	Take	alendronate		Not ta (ta	ke alendronate ke placebo)
Benefit(s):	96	Avoid breaking	a hip	91	Avoid breaking a hip
5 fewer women break a hip. +++	4	Break a hip 00000000000000000000000000000000000		9	Break a hip 99999999999999999999999999999999999
Slow down the loss of mineral in the bones		Yes			No
Risk(s): Side Effects The same number of women stop treatment due to side effects [such as stomach problems or ulcers in the esophagus]. ++			9993 9993 9993 9993 9993	Stay on t Stop trea \$6000000000000000000000000000000000000	reatment itment
Inconvenience of taking alendronate and sitting upright or standing for 30 minutes before eating in the morning		Yes			No
Risk(s): Serious Harms If 10,000 women take alendronate for an average of 2 years, 1 more woman has a serious harm [jaw damage]. +	9,999 1	Avoid jaw dama Has jaw dama	-	10,000	Avoid jaw damage Have jaw damage

GRADE system: A way of reporting the quality of the evidence and whether or not it may change if new studies are done: ++++ 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. (Guyatt et al. 2011, GRADE Guidelines)

The SURE Test ©2008 O'Connor & Légaré: People who answer "No" to one or more of these questions are more likely to delay their decision, change their mind, feel regret about their choice or blame others for bad outcomes. It is important to work through the decision step by step. (Légaré et al. 2010, Are you SURE?)

References for Cochrane Review: Wells GA, Cranney A, Peterson J, Boucher M, Shea B, Welch V, Coyle D, Tugwell P. alendronate for the primary and secondary prevention of osteoporotic fractures in postmenopausal women. *Cochrane Database of Systematic Reviews* 2008, Issue 1. Art. No.: CD001155. DOI: 10.1002/14651858.CD001155.pub2.

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