Commenting on Task Force **Draft** Recommendations

U.S. Preventive Services TASK FORCE

This fact sheet explains the Task Force's draft recommendation statement on vitamin D and calcium supplements to prevent cancer and fractures related to osteoporosis. It also tells you how you can send comments about the draft recommendation statement to the Task Force. Comments may be submitted from June 12 to July 10, 2012. The Task Force welcomes your comments.

Vitamin D and Calcium Supplementation to Prevent Cancer and Osteoporotic Fractures

The U.S. Preventive Services Task Force (Task Force) has issued a **draft** recommendation statement on *Vitamin D and Calcium Supplementation to Prevent Cancer and Osteoporotic Fractures*.

This draft recommendation statement applies to adults who live at home and not in assisted living or in nursing homes. It does not apply to those who already have had cancer or a broken bone because of osteoporosis.

The Task Force reviewed recent research studies on the use of vitamin D and calcium supplements to prevent cancer and fractures related to osteoporosis. The draft recommendation statement summarizes what the Task Force learned about the potential benefits and harms of using these supplements for these health conditions: (1) There is not enough evidence to determine whether vitamin D supplements, with or without calcium, can prevent cancer in adults. (2) There is not enough evidence to determine whether vitamin D and calcium supplements can prevent fractures in men and women who have not yet gone through menopause. (3) There is not enough evidence to determine whether vitamin D and calcium supplements at larger doses can prevent fractures in older women. (4) Lower doses of vitamin D and calcium supplements do not prevent fractures in older women and may lead to kidney stones in a small number of women.

What is vitamin D and calcium supplementation?

Vitamin D and calcium are important nutrients that work together to keep bones strong. Both nutrients are found naturally in foods but they also can be taken as dietary supplements.

Cancer and Fractures

Cancer is a group of diseases in which cells grow out of control and can take over nearby tissues. Cancer is the second most common cause of death in the United States. In 2011, more than 820,000 men and 770,000 women were diagnosed with cancer, and almost 572,000 people died from cancer.

Osteoporosis is a bone disease that occurs when bones lose density and the bone tissue becomes abnormal. Healthy bones are made up of a dense web of protein fibers and calcium. When this web becomes less dense, bones become fragile and break easily. This is especially true for the hip, spine, and wrist.

Osteoporosis mainly affects women, but it also can affect men. More than 40 million people have osteoporosis or are at risk. Each year, nearly 1.5 million people in the United States break a bone because of osteoporosis. Nearly half of all women older than age 50 will have a fracture due to osteoporosis. These fractures often lead to pain and disability, less independence, and a reduced quality of life. Fractures, especially hip fractures, have also been linked with an increased risk of death.

Vitamin D and Calcium Supplements to Prevent Cancer and Fractures

Studies have shown that vitamin D is involved in many body functions that are important to good health, including helping the body absorb and use calcium properly. People who don't get enough calcium and vitamin D in their diets may choose to take supplements of these nutrients, either separately or in combination.

Because of the roles that vitamin D and calcium play in bone health and health in general, scientists have carried out studies to see whether supplements of these nutrients can prevent cancer and fractures. However, these studies have provided few clear answers.

Potential Benefits and Harms

The Task Force reviewed the studies on whether vitamin D and calcium supplements can prevent cancer and fractures and whether taking the supplements has any potential harms.

For cancer, the Task Force found there isn't enough information to say whether supplements can prevent cancer. For fractures, the science tells us there is no benefit in taking vitamin D and calcium supplements at low doses to prevent fractures in post-menopausal women. There isn't enough information to say whether the supplements prevent fractures in men and in premenopausal women, or whether they prevent fractures in postmenopausal women if taken in higher doses.

The Draft Recommendation Statement on Vitamin D and Calcium to Prevent Fractures and Cancer: What Does it Mean?

Here is the Task Force's draft recommendation statement on the use of vitamin D and calcium supplements to prevent fractures and cancer. The draft recommendation statement has letter grades. The grades are based on the quality and strength of the evidence about the use of these supplements for this purpose and on the potential benefits and harms of the supplements. The grades are explained in the box at the end of this fact sheet.

When the Task Force recommends against (Grade D) using supplements for a particular purpose, it is because the supplements have no benefit and some potential harms. When there is not enough evidence to judge potential benefits and harms, the Task Force does not make a recommendation for or against—it issues an I Statement. The Notes explain key ideas.

Before you send comments to the Task Force, you may want to read the full **draft recommendation statement**. The statement explains the evidence the Task Force reviewed and how it decided on the grade. An **evidence report** provides more detail about the studies the Task Force reviewed.

1 The Task Force concludes that the current evidence is insufficient to assess the balance of the benefits and harms of vitamin D supplementation, with or without calcium, for the primary prevention of cancer in adults. **I Statement**

2 The Task Force concludes that the current evidence is insufficient to assess the balance of the benefits and harms of combined vitamin D and calcium supplementation for the primary prevention of fractures in premenopausal women or in men. **I Statement**

3 The Task Force concludes that the current evidence is insufficient to assess the balance of the benefits and harms of daily supplementation with more than 400 IU of vitamin D_3 and more than 1000 mg of calcium for the primary prevention of fractures in noninstitutionalized postmenopausal women. **I Statement**

4 The Task Force recommends against daily supplementation with 400 IU or less of vitamin D_3 and 1000 mg or less of calcium carbonate for the primary prevention of fractures in noninstitutionalized postmenopausal women. **Grade D**

Notes

1 **evidence is insufficient**
The Task Force did not find enough information on the use of these supplements to prevent cancer to determine potential benefits and harms.

primary prevention
Preventing a disease or condition before it even begins.

2 **premenopausal women**
Women who have not yet gone through menopause.

3 **IU**
International Units. IUs are used to indicate amounts of certain vitamins and other biological substances.

vitamin D_3
A form of vitamin D often used in supplements.

mg
Milligram. A measure of weight in the metric system.

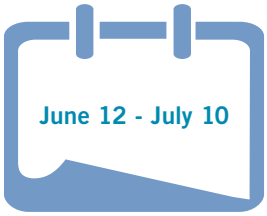
noninstitutionalized postmenopausal women
Women living at home and who have already gone through menopause.

4 **daily supplementation**
The Task Force found that taking a supplement at this level every day does not prevent fractures and may lead to kidney stones in a small number of women.

calcium carbonate
A form of calcium often used in dietary supplements.

Click Here to Comment on the Draft Recommendation

The Task Force welcomes comments on this draft recommendation.



Comments must be received **between June 12** and **July 10, 2012**.

All comments will be considered for use in writing final recommendations.

What is the U.S. Preventive Services Task Force?

The Task Force is an independent group of national experts in prevention and evidence-based medicine. The Task Force works to improve the health of all Americans by making evidence-based recommendations about clinical preventive services, such as screenings, counseling services, or preventive medicines. The recommendations apply to people with no signs or symptoms of the disease being discussed.

To develop a recommendation statement, Task Force members consider the best available science and research on a topic. For each topic, the Task Force posts draft documents for public comment, including a **draft recommendation statement**. All comments are reviewed and considered in developing the final recommendation statement. To learn more, visit the **Task Force Web site**.

USPSTF Recommendation Grades

Grade	Definition
A	Recommended.
B	Recommended.
C	Recommendation depends on the patient's situation.
D	Not recommended.
I statement	There is not enough evidence to make a recommendation.

Click Here to Learn More About Vitamin D and Calcium to Prevent Fractures and Cancer

- **Vitamin D Supplementation for Prevention Chart** (USPSTF)
- **Osteoporosis** (NIH Osteoporosis and Related Bone Diseases National Resource Center)
- **Preventing Osteoporosis: Questions for the Doctor** (healthfinder.gov)
- **Vitamin D and Cancer Prevention: Strengths and Limits of the Evidence** (National Cancer Institute)

Learn About the Task Force Recommendation on Vitamin D to Prevent Falls

The Task Force also recently reviewed research studies on the role of vitamin D in preventing falls in older adults. The Task Force found that exercise or physical therapy and vitamin D supplements can help prevent falls in older adults.

Visit the Task Force Web site to read the full **recommendation statement** on preventing falls in older adults. The statement explains the evidence the Task Force reviewed and how it decided on its recommendations. The Web site also has a link to a **consumer guide** on this issue.