**Osteoporosis**

Osteoporosis is a condition that causes your bones to weaken and become very fragile. Knowing what some of the symptoms are can help you manage osteoporosis and prevent further bone loss.

**Osteoporosis: Detailed Information**

This information is meant to be a general introduction to this topic. The purpose is to provide a starting point for you to become more informed about important matters that may be affecting your life as a survivor and to provide ideas about steps you can take to learn more. This information is not intended nor should it be interpreted as providing professional medical, legal and financial advice. You should consult a trained professional for more information. Please read the Suggestions ([http://www.livestrong.org/Get-Help/Learn-About-Cancer/Cancer-Support-Topics/Physical-Effects-of-Cancer/Osteoporosis#s#s](http://www.livestrong.org/Get-Help/Learn-About-Cancer/Cancer-Support-Topics/Physical-Effects-of-Cancer/Osteoporosis#s#s)) and Additional Resources ([http://www.livestrong.org/Get-Help/Learn-About-Cancer/Cancer-Support-Topics/Physical-Effects-of-Cancer/Osteoporosis#a#a](http://www.livestrong.org/Get-Help/Learn-About-Cancer/Cancer-Support-Topics/Physical-Effects-of-Cancer/Osteoporosis#a#a)) documents for questions to ask and for more resources.

Some cancer survivors may experience osteoporosis as a side effect of cancer and treatment. This is a condition that thins and weakens bones and causes them to become very fragile. Osteoporosis is sometimes called a silent disease because it can exist for years without symptoms. Many people do not realize that they have this condition until a bone is broken or fractured.

Osteoporosis is treatable, but not curable. It is important to be aware of your risks for developing osteoporosis. This can increase your chances of detecting any symptoms early and getting effective treatment.

**Who is at risk for osteoporosis?**

Risk factors for osteoporosis can be related to the type of cancer you had, your treatment, or the way your body responded to treatment. Specifically, risks may exist for survivors of certain types of cancers and treatments that could spread to the bone such as:

- Breast cancer
- Prostate cancer
- Multiple myeloma (cancer that occurs in the antibody-producing white blood cells)
- Other solid tumor types such as lung, testicular, ovarian and endometrial (uterine wall) cancers
Treatment for some cancers, such as breast or prostate cancer, can include blocking or eliminating certain hormones in your body. Blocking sex hormones helps kill the cancer cells. However, the sex hormones also help protect the bones. If your body is deprived of these hormones, osteoporosis can develop. This does not mean that you should not receive this type of treatment because it may be the most effective way to treat your type of cancer. If you received or will receive this type of treatment, talk with your doctor about things that can be done to prevent or minimize bone loss.

If you develop osteoporosis, it does not mean that the health care team did not do a good job treating your cancer. The primary goal of your health care team is to treat your cancer in the most effective way possible. They can now work with you to manage any aftereffects you might experience.

There are also risk factors for osteoporosis that may not be related to cancer or treatment including:

- Health problems such as hyperthyroidism, rheumatoid arthritis or diabetes
- Family history of breast cancer
- Small body frame or low body weight
- Advanced age
- Being female--osteoporosis is more likely to occur in women
- Ethnicity--Caucasians and Asians generally have a higher risk
- Low testosterone levels in men
- Certain medications that are taken for a long time
- Low intake of calcium and vitamin D
- Too much caffeine
- Too little or too much exercise
- Smoking
- Drinking too much alcohol

**What are the symptoms and signs of osteoporosis?**

Bone loss related to osteoporosis happens slowly over time. An individual can have osteoporosis and not experience any symptoms. Talk with your doctor if you think you are at risk for osteoporosis, even if there are no symptoms. Ask about the screening tests that can be used to determine if osteoporosis is affecting you.

Symptoms of osteoporosis may include:

- Weight loss
- Stooped posture
- Curving of the upper back (Dowager's hump)
- Bone tenderness
- Loss of one or two inches in height

If you experience any of these symptoms, it does not always mean that you have osteoporosis. Be certain to discuss your concerns with your health care team to get help determining why this is happening.
The most common and widely used test for osteoporosis is called the DEXA (dual energy x-ray absorptiometry) scan. This test measures the amount of calcium in bone, typically at the hip and lower spine. It is recommended for individuals over age 65 and for menopausal women of any age because they may be at risk for osteoporosis.

The DEXA scan should be repeated every couple of years to check whether your bone density has changed. Your T-score compares your results to healthy bones of young adults. The following table shows the range of T-scores that are used to assess risk:

<table>
<thead>
<tr>
<th>Condition</th>
<th>T-score Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal T-score</td>
<td>-1 to +1</td>
</tr>
<tr>
<td>Osteopenia (pre-osteoporosis)</td>
<td>-1 to -2.5</td>
</tr>
<tr>
<td>Osteoporosis</td>
<td>-2.5 or lower</td>
</tr>
<tr>
<td>Severe osteoporosis</td>
<td>-2.5 or lower with one or more fractures</td>
</tr>
</tbody>
</table>

Osteopenia is diagnosed when the bone mineral density is lower than what is considered to be normal. Many doctors think that it may be a precursor to osteoporosis. However, many people diagnosed with osteopenia will never develop osteoporosis.

Talk with your health care team about your risk for developing osteoporosis. It usually happens after age 65. However, it may happen sooner if you received treatment that puts you at high risk for bone loss. The more risk factors you have, the higher your chances of developing osteoporosis at some point during your life. Because the condition can develop slowly, it may be difficult to determine exactly when it might affect you or when you might notice symptoms.

**What can be done to minimize the risk of experiencing osteoporosis?**

Osteoporosis can be minimized and controlled, but not cured. This means that once you know you have this condition, you can work with your health care team to develop ways to slow down any bone loss.

Blood and urine tests may be used to see how much osteoporosis is affecting your bones and how you are responding to any treatment for osteoporosis.

The following list suggests ways to help minimize your risk of developing osteoporosis:

- Stop smoking
- Drink little or no alcohol
- Include healthy behaviors into your lifestyle
- Maintain a healthy weight and improve your muscle strength and bone density
- Include calcium in your diet
- Include Vitamin D in your diet
- Evaluate your risk for falls
- Talk with your doctor about medications that can help decrease bone loss
- Discuss alternative therapies with your health care team
Osteoporosis: Suggestions

The suggestions that follow are based on the information presented in the Detailed Information (http://www.livestrong.org/Get-Help/Learn-About-Cancer/Cancer-Support-Topics/Physical-Effects-of-Cancer/Osteoporosis#d#d) document. They are meant to help you take what you learn and apply the information to your own needs. This information is not intended nor should it be interpreted as providing professional medical, legal and financial advice. You should consult a trained professional for more information. Please read the Additional Resources (http://www.livestrong.org/Get-Help/Learn-About-Cancer/Cancer-Support-Topics/Physical-Effects-of-Cancer/Osteoporosis#a#a) document for links to more resources.

<table>
<thead>
<tr>
<th>Strategies to Avoid Osteoporosis</th>
<th>Actions You May Want to Consider</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stop smoking</td>
<td>• Try using the nicotine patch or gum</td>
</tr>
<tr>
<td></td>
<td>• Seek out community offered smoking cessation programs</td>
</tr>
<tr>
<td></td>
<td>• Practice deep breathing exercises</td>
</tr>
<tr>
<td></td>
<td>• Try working with a hypnotist although this has not been fully proven to work</td>
</tr>
<tr>
<td>Drink little or no alcohol</td>
<td>• Seek professional or community programs if unable to control alcohol intake</td>
</tr>
<tr>
<td>Include healthy behaviors</td>
<td>• Stress management</td>
</tr>
</tbody>
</table>

Works Cited


- Exercise that is right for your recovery needs
- Diet that is right for your recovery needs
- Decrease amount of caffeine in your diet

**Maintain a healthy weight and improve your muscle strength and bone density**

- Walking, jogging, or running for 30 minutes three times a week
- Daily stretching
- Yoga or Tai Chi
- Swimming, water aerobics
- Dancing
- Join gym

**Include more calcium in your diet**

- Supplemental calcium is 1500 mg per day for those 65 years and older and 1000 mg per day for those under 65 years of age
- Foods high in calcium include milk, cheese, yogurt, ice cream, fortified orange juice, tofu, broccoli, collard greens, kale and sardines

**Include more Vitamin D in your diet**

- Supplemental Vitamin D 200 to 800 IU per day
- Foods high in Vitamin D include eggs, certain fish, breads, and cereal

**Try to avoid any falls that might cause broken bones**

- Put enough lighting in all rooms and outside to help you see when it’s dark
- Secure or remove throw rugs in your house that might make you trip
- Use hand rails in bathroom and on stairs
- Use a cane or walker when appropriate or necessary
- Don’t be afraid to ask for help

**Talk with your doctor about medications that can help decrease bone loss**

- Hormone Replacement Therapy
- Bisphosphonates
- Calcitonin
- Raloxifene

**Discuss alternative therapies with your health care team**

- Soy supplements
- Low-dose progesterone
- Electromagnet therapy – not proven
Osteoporosis: Additional Resources

The resources listed below provide more detailed information and support services to help you with osteoporosis. Please read the Detailed Information (http://www.livestrong.org/Get-Help/Learn-About-Cancer/Cancer-Support-Topics/Physical-Effects-of-Cancer/Osteoporosis#d#d) and Suggestions (http://www.livestrong.org/Get-Help/Learn-About-Cancer/Cancer-Support-Topics/Physical-Effects-of-Cancer/Osteoporosis#s#s) document for more information and questions to ask.

LIVESTRONG Navigation Services
LIVESTRONG.org/Get-Help

Online: Complete an intake form through the LIVESTRONG website.
Phone: 1.855.220.7777 (English and Spanish)
Navigators are available for calls Monday through Friday, 9 a.m. to 5 p.m. (Central Time). Voicemail is available after hours.

LIVESTRONG offers assistance to anyone affected by cancer, including the person diagnosed, loved ones, caregivers and friends. The program provides information about fertility risks and preservation options, treatment choices, health literacy and matching to clinical trials. Emotional support services, peer-to-peer matching and assistance with financial, employment and insurance issues are also available. To provide these services, LIVESTRONG has partnered with several organizations including Imerman Angels, Navigate Cancer Foundation, Patient Advocate Foundation and EmergingMed.

National Osteoporosis Foundation (NOF)
www.nof.org

Email: Send email through the website.

The National Osteoporosis Foundation (NOF) promotes improved bone health through awareness, education, advocacy and research. The NOF works to prevent osteoporosis promote lifelong bone health, help improve the lives of those affected by osteoporosis and related fractures and to find a cure. The website offers information on the prevention, diagnosis and treatment of osteoporosis. The NOF sponsors both online and community support groups for men and women of all ages. It offers educational materials and information for patients, families, health professionals and the general public.

U.S. Institutes of Health - National Cancer Institute (NCI)
www.cancer.gov

Online: Online assistance is available in English or Spanish through the LiveHelp instant messaging system. This service is available Monday-Friday, 9:00 a.m. to 11:00 p.m. (EST)
Email: Send an email through the "Need Help?" section of the website
Phone: 1-800-422-6237
TTY for deaf and hard of hearing callers: 1-800-332-8615
Information specialists answer calls Monday-Friday, 9:00 a.m. to 4:30 p.m. local time.

The National Cancer Institute's website provides accurate information about the challenges cancer can bring. You can search for information by cancer type or topic. You can find information about treatment, financial and insurance matters. You can also learn how treatments in development work and search for a clinical trial in your area. This site also has a good dictionary of cancer terms, drug information and other publications.

Cancer information specialists can answer your questions about cancer and help you with quitting smoking. They can also help you with using this Web site and can tell you about NCI's printed and electronic materials. The knowledgeable and caring specialists have access to comprehensive, accurate information on a range of cancer topics, including the most recent advances in cancer treatment. The service is confidential, and information specialists spend as much time as needed for thorough and personalized responses.

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