

<u>MEDICAL CONDITION</u>	<u>SUGGESTED SOLUTIONS</u>	<u>DISEASE MANAGEMENT/ SCREENING GUIDELINES IN THE UNITED STATES</u>	<u>STATISTICS / RISK REDUCTION</u>
<p>Calcium / Vitamin D / Bone strength:</p>	<ul style="list-style-type: none"> <li>Vitamin D levels (25 OHD) should be checked yearly, at least. It should be more than 30ng/cc.</li> </ul> <p>If your Vitamin D levels remain persistently low, ask your doctor if you need to be screened for celiac disease. That could be especially important if you have continued weight loss, and unexplained diarrhea.</p> <p>My 25 hydroxy D level is _____</p> <ul style="list-style-type: none"> <li>Your vitamin D intake should be 800-1000 units a day. Citracal with D at a dosage of 2 tablets twice a day would give you 800-1000 units of vitamin D a day (4 mini caplets). Look for other brands that make small caplets. You should read the label to make sure your vitamin D intake is adequate. Calcium Citrate should not increase your risk for kidney stones even if you had them earlier.</li> </ul> <p>My calcium and vitamin D medications are _____</p> <ul style="list-style-type: none"> <li>Serum calcium should be checked yearly at least.</li> </ul> <p>My serum calcium is _____</p> <ul style="list-style-type: none"> <li>You should have a bone density checked if you are a male 70 years and older or a female 65 years and older.</li> </ul> <p>My bone mineral density testing (DEXA scan) showed _____</p> <ul style="list-style-type: none"> <li>You should have a bone density checked after menopause if you are a female or male between ages 50-70 years and have other risk factors for osteoporosis: family history of hip fracture, rheumatoid</li> </ul>	<ul style="list-style-type: none"> <li>Vitamin D intake should be 800 units to 1000 units daily.</li> <li>Calcium intake is recommended to be 1000 mg daily</li> </ul> <p><u>CHECKING FOR OSTEOPOROSIS:</u> Testing for osteoporosis is done by measuring bone mineral density. The national osteoporosis foundation recommends that the following group of people have bone mineral density (BMD) testing:</p> <ul style="list-style-type: none"> <li>Women ages 65 and older</li> <li>Men ages 70 and older</li> <li>Women younger than 65</li> </ul>	<p><u>VITAMIN D DEFICIENCY</u> Global estimates are that over 1 billion people are at risk for vitamin D deficiency.</p> <p>In the United States it is estimated that 30-50% of children and adults are at high risk for vitamin D deficiency.</p> <p>They are at a higher risk for cancers of the pancreas, colon, prostate, ovary, breast and Hodgkin's lymphoma. Low vitamin D levels add to the risk of type 1 diabetes mellitus, hypertension, Crohn's disease, cardiovascular disease, multiple sclerosis, schizophrenia, and depression.</p> <p>(Michael F Holick, M.D., PhD N Engl J Med. 2007; 357: 266-281.)</p> <p><u>OSTEOPOROSIS (BRITTLE BONES)</u> More than 200 million people worldwide have osteoporosis.</p> <p>(Cooper C. Epidemic of osteoporosis. Osteoporosis Int. 1999; 9 (suppl2):s2-8)</p> <p>Estimated numbers of hip</p>

	<p>arthritis, steroid use, smoking history, alcohol intake of 3 or more drinks a day, low body mass index or previous fracture.</p> <ul style="list-style-type: none"> <li>You will need treatment if you have had a previous hip or a vertebral fracture: spontaneous or with a fall from a standing height or less (fragility fracture)</li> </ul> <p>(Your health care provider should be able to rule out a pathological fracture i.e. fractures due to spread of cancer.)</p> <ul style="list-style-type: none"> <li>If your T-score on bone density testing is less than -2.5, you will need to be treated for osteoporosis</li> </ul> <p>If your bone density T-score is -1 to -2.5 (Low bone mass or osteopenia) and you have 1 or more risk factors for example: steroid therapy or other chronic diseases, early menopause, high prolactin or low testosterone levels, celiac disease, gastric bypass surgery, rheumatoid arthritis, lupus or other auto immune disease, heart failure, you are on anti seizure medication , lithium, anticoagulants (blood thinners), have diabetes mellitus, high Parathyroid hormone levels, emphysema, kidney failure, thyroid disease, then you will need treatment.</p> <p>My osteoporosis/osteopenia medication is</p> <hr/> <p>If you and your health care provider have determined that your 10 year probability of hip fracture is 3% or higher, or 10 year probability of any other major osteoporosis related fracture is 20% or higher (using the online FRAX tool: based on the U.S. adapted WHO algorithm) then you will require appropriate treatment to prevent future fractures.</p>	<p>who are postmenopausal and/ or have risk factors for osteoporosis</p> <ul style="list-style-type: none"> <li>Men Younger than 70 who have risk factors for osteoporosis</li> </ul> <p>(Source: National Osteoporosis Foundation. Reported In: Medscape News, <a href="http://www.medscape.com/viewarticle/570594">http://www.medscape.com/viewarticle/570594</a>)</p> <p>(National Osteoporosis Foundation 2008) <a href="http://www.nof.org/">http://www.nof.org/</a></p>	<p>fractures are expected to increase from 1.7 million in 1990 to 6.8 million in 2050.</p> <p>(Philip Sambrook et al. The Lancet. June 2006. 367; 2010-2018.)</p> <p>In the United States:</p> <ul style="list-style-type: none"> <li>10 million individuals have been estimated to have osteoporosis (T-Score &lt;2.5) : 8 million women and 2 million men</li> <li>34 million individuals have been estimated to have osteopenia (T-Score between -1 and -2.5) : 22 million women and 12 million men</li> </ul> <p>(National Osteoporosis Foundation 2008) <a href="http://www.nof.org/">http://www.nof.org/</a></p> <p>In the United States there are estimated to be 1.5 million osteoporotic fractures in a single year; that would include 700,000 vertebral fractures, 300,000 hip fractures, 200,000 wrist fractures, and 300,000 other fractures.</p> <p>The life time fracture risk in a woman over age 50 is about 50% and in a male over 50 would be about 20%.</p> <p>Following a hip fracture there is 24% increased mortality within one year. (Nearly 65,000 American women are expected to die from complications of hip fracture each year.)</p> <p>50% of individuals after a hip fracture remain disabled. 25% of individuals after a hip fracture would require nursing home care. 60% may not regain all their independence.</p>
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			(National Osteoporosis Foundation, 2008) <a href="http://www.nof.org/">http://www.nof.org/</a>
Exercise:	<ul style="list-style-type: none"> <li>Aerobic exercise and weight bearing exercise of moderate intensity should be done for about ½ an hour to 1 hour a day (be sure you are cleared by your doctor if you have heart/lung/joint disease).</li> <li>You may need to be in a medically supervised exercise program if you have had previous heart disease, weakness or joint disease.</li> <li>You would need to be evaluated by your physician before starting a regular exercise program if you have a history of heart disease, or if you have 2 or more of the following risk factors for heart disease: being 45 years of age or older, have an immediate family member with a history of heart disease prior to age 55 years, are a smoker, have high blood pressure, have diabetes mellitus, are above your ideal body weight, and/or do not have an active life style. (Jonathan Meyers, PhD. Circulation. 2003; 107: e2-e5. <a href="http://circ.ahajournals.org/cgi/content/full/107/1/e2">http://circ.ahajournals.org/cgi/content/full/107/1/e2</a>)</li> </ul> <p>My exercise duration is _____</p>	<ul style="list-style-type: none"> <li>Exercise Guidelines recommended by the Centers for Disease Control and Prevention and the National Institute of Health state that greater than or equal to 30 minutes of moderate activity daily should be done as a part of a healthy lifestyle.</li> <li>High risk patients (example: with cardiac disease) should be in a medically supervised program.</li> <li>Appropriate programs would be advisable for individuals with physical/neurological deficits.</li> </ul> <p>(<a href="http://www.guidelines.gov">www.guidelines.gov</a>)</p>	<p>62% of adults in the United States ages 18 or older, engage in some light/moderate/vigorous leisure time physical activity for 10 minutes or greater</p> <p>(<a href="http://www.americanheart.org/statistics">www.americanheart.org/statistics</a>)</p> <p>The Lack of physical activity may contribute to about 250,000 deaths per year in the United States. Regular exercise may increase exercise tolerance, help reduce weight, reduce blood pressure, decrease LDL, raise HDL cholesterol, and increase insulin sensitivity.</p> <p>(Jonathan Meyers, PhD. Circulation. 2003; 107: e2-e5. <a href="http://circ.ahajournals.org/cgi/content/full/107/1/e2">http://circ.ahajournals.org/cgi/content/full/107/1/e2</a>)</p> <p>Several epidemiological, clinical, and basic scientific evidence suggest that regular physical activity lowers the risk of coronary heart disease and should be encouraged. According to the recommendations made by The Center for Disease Control and Prevention/ ACSM, at least 30 minutes of moderate physical activity, 7 days per week should be pursued.</p> <p>However, vigorous activity could increase the risk for acute myocardial infarction and sudden cardiac death even in exercise conditioned individuals. Therefore physically active children and adults as well as high school and college athletes, should be appropriately evaluated before starting a regular exercise program. Athletes with known</p>

			<p>medical conditions should be evaluated prior to competition according to the published guidelines. Exercise programs will need to be modified according to an individual's exercise capacity and needs.</p> <p>(Maron BJ. et.al.. Circulation. 1998; 97: 2294  <a href="http://circ.ahajournals.org/cgi/content/full/97/22/2294">http://circ.ahajournals.org/cgi/content/full/97/22/2294</a>)</p> <p>(Maron BJ. J Am Coll Cardiology 2005; 45:2-64.  <a href="http://content.onlinejacc.org/cgi/content/full/j.jacc.2005.04.052v1">http://content.onlinejacc.org/cgi/content/full/j.jacc.2005.04.052v1</a>)</p> <p>(Paul D. Thompson et.al.. Circulation 2007;115: 2358-2368  <a href="http://www.circ.ahajournals.org/cgi/content/abstract/115/17/2358">http://www.circ.ahajournals.org/cgi/content/abstract/115/17/2358</a>)</p>
Smoking Cessation:	<ul style="list-style-type: none"> <li>If you do smoke, it is best for your heart, lungs, and other organ systems if you quit soon. Ask your doctor for any help that you may need.</li> </ul>	<p>Avoid Environmental Tobacco Smoke.</p> <p>(guidelines.gov)</p>	<p>In the 20<sup>th</sup> century there were approximately 100 million deaths globally from tobacco-associated diseases.</p> <p>(<a href="http://www.who.int/mediacentre/news/releases/2003/pr27/en/print.html">http://www.who.int/mediacentre/news/releases/2003/pr27/en/print.html</a>)</p> <p>There could be approximately 60% reduction in the number of cancer deaths over several years with smoking cessation.</p> <p>(<a href="http://www.who.int/mediacentre/news/releases/2003/pr27/en/print.html">http://www.who.int/mediacentre/news/releases/2003/pr27/en/print.html</a>)</p> <p>It is estimated that there are 1 billion individuals who smoke, worldwide. That results in 3 million smoking related deaths, yearly.</p> <p>(PENN STATE Population Research Institute, <a href="http://www.pop.psu.edu/searachable/press/nov2098.htm">http://www.pop.psu.edu/searachable/press/nov2098.htm</a>) (last modified 9/10/07)</p> <p>However, the WHO report on</p>

			<p>the Global Tobacco Epidemic, 2008 reported 5.4 million smoking related deaths yearly.</p> <p>(<a href="http://www.jointogether.org/news/headlines/inthenews/2008/billion-smoking-deaths-by.html">http://www.jointogether.org/news/headlines/inthenews/2008/billion-smoking-deaths-by.html</a>)</p> <p>According to the Centers for Disease Control and Prevention (CDC), there were 44.5 million smokers in the United States in 2006.</p> <p>That leads to 438,000 deaths yearly in the United States from diseases related to cigarette smoking.</p> <p>(<a href="http://www.cancer.org/docroot/PED/content/PED_10_2X_Cigarette_Smoking.asp?sitearea=PED&amp;viewmode=print&amp;">http://www.cancer.org/docroot/PED/content/PED_10_2X_Cigarette_Smoking.asp?sitearea=PED&amp;viewmode=print&amp;</a>)</p>
ALCOHOL INTAKE:	<ul style="list-style-type: none"> <li>Limit alcohol intake to the equivalent of less than 3 drinks a day.</li> </ul> <p>My alcohol intake is _____.</p> <p>(National Osteoporosis Foundation Physicians Guide To Prevention And Treatment Of Osteoporosis)  <a href="http://www.nof.org/">http://www.nof.org/</a></p>		