

## Nutrition as We Age: Olive Oil, Coffee, and Supplements in Your Life!

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The comments presented here are intended to help you utilize this presentation with an educated audience. The content can be adjusted to fit the needs of a variety of audiences. These Suggested Comments are not meant to be a script, but can be used to help you prepare for an extemporaneous talk, using your own personal style. I hope you find them useful.

**[Bracketed comments in bold are my notes to you, the educator.]**

*Comments in italics provide more in-depth information, and may be useful for more educated or interested groups.*

Slide #	Suggested Comments
<b>1</b> Title Slide	<b>[Introduce yourself and the topic. Allow participants to introduce themselves if it is a small group and/or do an ice breaker to start the workshop.]</b>
<b>2</b> Olive oil, coffee, and supplements	These three dietary components come up a lot in conversations about nutrition and health, but how much do you know about their effects on your health? What difference does it make which oil you use in your salad or in cooking? Is it okay to drink coffee or does it cause dehydration? How safe are supplements? Today, we'll see what the research tells us about how olive oil, coffee, and dietary supplements might fit into a healthy diet and what effects they might have on our risk for chronic diseases, especially cardiovascular disease (CVD) and stroke.
<b>3</b> Olive oil – picture	Let's first look at olive oil. How many of you use olive oil in cooking and/or for salads and bread dipping? <b>[Wait for a show of hands.]</b>  You may be encouraged to use more of this ancient oil after we review the research into its health properties.
<b>4</b> Properties of olive oil	Olive oil consists mainly of the monounsaturated fatty acid oleic acid. Monounsaturated fatty acids, sometimes called <b>MUFAs</b> have a positive effect on blood cholesterol. MUFAs have been found to lower both total cholesterol and LDL cholesterol in many studies.  Also, all olive oil contains biologically active components that provide additional health benefits. The best types of olive oil are virgin and extra virgin, which contain about 1 to 2% of these biologically active compounds.  <i>The minor components of olive oil are phenolic compounds that are highly bio-available and have numerous health effects. Virgin olive oil contains about 36 of these phenolic compounds, more than you find in highly refined olive oil.</i>

	<i>Virgin olive oil is processed using only mechanical methods that don't alter the oil's composition. When olive oil is refined with the use of chemical and physical filters, some of the phenolic compounds are lost.</i>
<b>5 Health effects of olive oil</b>	Here is a summary of the health effects of olive oil. As I mentioned, the MUFAs in olive oil help to lower blood cholesterol, which reduces CVD risk. Another effect of olive oil is decreased risk of blood clots, which reduces risk of having a heart attack or stroke. By improving insulin function, olive oil also may reduce risk of diabetes. The next few slides describe effects of olive oil-rich diets on risk for stroke and heart attacks.
<b>6 Olive oil and stroke</b>	<p>In Italy, the incidence of stroke is higher than that of heart disease, especially among older adults, so it's a major health concern. The Three-City study is a multi-center study in Italy that has primarily been investigating vascular risk factors for dementia.</p> <p>The researchers examined the risk of stroke in older adults who consumed varying amounts of olive oil. None of the participants had had a stroke prior to the study. High use of olive oil is a common feature of the <b>Mediterranean Diet</b>, which has become popular in recent years, not just in Italy and other Mediterranean countries, but in the U.S. as well.</p> <p>Comparing those who had intensive use of olive oil, meaning they used it for both cooking and for salad dressing, with those who never used olive oil, higher usage was associated with a <b>41% lower risk for stroke</b>.</p> <p><i>Neurology</i> 2011; 77:1-8</p>
<b>7 Olive oil and heart attack risk</b>	<p>This hospital-based <b>case-control</b> study in Spain investigated the role of olive oil in prevention of heart attacks. The men were all under 80 years of age; the <b>cases</b> had suffered their first heart attack and the <b>controls</b> were in the hospital for various conditions that are not related to diet.</p> <p>The men were asked about their dietary intake using a food frequency questionnaire. The researchers did not distinguish between olive oil and virgin olive oil. The <b>main finding</b> was that those in the highest quintile (or top fifth) of olive oil intake had a <b>64% lower risk of having a heart attack</b> compared with those in the lowest quintile of intake. So, those who had the <b>most</b> olive oil in their diets were <b>much less likely</b> to have a heart attack than those who had the <b>least</b> olive oil in their diets.</p> <p><i>Maturitas</i> 2011; 68: 245-250</p>
<b>8 Health effects of phenolic compounds</b>	For a long time the health effects of olive oil were thought to be due to the high MUFA content. (Who remembers what MUFAs are? – Monounsaturated fatty acids.) <i>In fact, the health claim that is allowed on food labels of olive oil is based on health effects of oleic acid.</i>

	<p>This study tested the health effects of olive oils with different amounts of phenolic compounds. <i>It is called the Eur-Olive study and was done in Spain, Italy, Germany, Finland, and Denmark.</i> Each participant received all three types of olive oil to use in their diets, but in a different order over the course of the study. <i>Between each of the interventions there was a two week “washout period” when they didn’t consume any olive oil.</i></p> <p>The results showed that virgin olive oil, which has the highest content of phenolic compounds, had the greatest effect on risk factors for CVD. The virgin olive oils increased HDL cholesterol, decreased the ratio of total cholesterol to HDL cholesterol, and decreased markers of oxidative stress; each of these changes reduces risk of CVD. <b>So there definitely is a health benefit to choosing virgin or extra virgin olive oil!</b></p> <p><i>Ann Intern Med. 2006;145:333-41</i></p>
<p><b>9</b> <b>Effect of F/V and olive oil on CHD risk in women</b></p>	<p>Let’s look at one more study ... this one just in women. This large study investigated the association between consumption of fruits, vegetables, and olive oil and incidence of coronary heart disease (CHD) in a large cohort of women.</p> <p>Women in the study ranged in age from 35 to 74 years with an average age of 50. After almost eight years of follow-up, 144 heart disease events were identified, most of which occurred in post-menopausal women. No difference in risk was found with varying fruit intake, but <b>women in the highest quartile (top 25%) of intake of leafy green vegetables or olive oil had a significantly lower risk of heart disease than those in the lowest quartile of intake.</b></p> <p><i>AJCN 2011;93:275-83</i></p>
<p><b>10</b> <b>MyPlate recommendation</b></p>	<p>The MyPlate food guide is based on the recommendations of the Dietary Guidelines for Americans, which focus on limiting major sources of saturated fatty acids (SFA), including solid fats from meats, butter and lard, and replacing them with sources of MUFA and polyunsaturated fatty acids or PUFA, including liquid vegetable oils such as olive oil.</p> <p>There are no specific recommendations for older adults, <b>but they can especially benefit from dietary fat changes since their risk for CVD is high.</b> Before we go on, are there any questions about olive oil or dietary fat in general?</p>
<p><b>11</b> <b>Coffee - picture</b></p>	<p>How many of you drink coffee? Coffee is well loved and widely consumed by people around the world. In the U.S., 52% of all persons aged 10 years or older drink coffee (<i>International J Cardiol. 2009; 137:216</i>). Some coffee drinker “wannabees” are even younger ... <b>YouTube video ...[cute].</b></p> <p>I for one am happy whenever I hear that yet another study has been published that links coffee consumption with a health benefit.</p>
<p><b>12</b> <b>History of</b></p>	<p>According to legend, coffee was discovered in Ethiopia by a goatherd who noticed that his goats could not sleep at night when they ate berries from a certain tree.</p>

<p><b>coffee</b></p>	<p>The goatherd reported this to the abbot of a local monastery who used the berries to make a drink and found that it kept him alert as well. Soon the word spread about the energizing effects of the local berries.</p> <p>Coffee was first cultivated on the Arabian peninsula and by the 16<sup>th</sup> century was found in Persia, Egypt, Syria and Turkey. It became popular among Muslims because they were forbidden to drink alcoholic drinks and they enjoyed coffee as a substitute. It was consumed in homes and public coffee houses and pilgrims to Mecca spread the word about the “wine of Araby.”</p> <p>European travelers brought back stories of the dark black beverage and by the 17<sup>th</sup> century coffee made its way to Europe. Some clergy called coffee “the bitter invention of Satan” and it was condemned in Italy. Pope Clement VIII was asked to intervene, but after he tasted it he liked it so much that he gave it his approval!</p> <p>Coffee was brought to the new world in the mid-1600s, but tea remained the preferred beverage until the Boston Tea Party which led to coffee overcoming tea as the hot beverage of choice in the colonies. Today, more than <b>400 billion cups of coffee are consumed every year</b> around the world.</p>
<p><b>13 Properties of coffee</b></p>	<p>Of course black coffee contains no calories or fat. We fatten it up with the things we put into our coffee like half ‘n half and sugar.</p> <p>The caffeine in regular coffee helps some people perk up in the morning and may improve concentration. Drinking too much of any beverage that contains caffeine can cause insomnia and irritability and also some long-term health problems like high blood pressure.</p> <p>Caffeine also may interact with some medications, like antiarrhythmics, antipsychotics, and bronchodilators, so check your medication inserts for any potential interactions or ask your pharmacist.</p>
<p><b>14 Health effects of coffee</b></p>	<p>Both caffeinated and decaffeinated coffees contain antioxidants. Several studies have found that drinking coffee protects against stroke and heart disease in men and/or women, depending on the study. Also, one study found that risk for the deadly form of prostate cancer was lower in men who drank six or more cups of coffee a day!</p>
<p><b>15 Coffee consumption and stroke risk in women</b></p>	<p>Let’s look at two of the research studies.</p> <p>This Swedish study examined the relationship between coffee consumption and risk of stroke in women with no history of cardiovascular disease (CVD). <i>The women filled out a 350-item questionnaire related to diet and lifestyle.</i></p> <p>Mean daily intake of coffee was 3 cups. After 10 years of follow-up 1680 stroke events were reported. <i>After adjusting for smoking status and other risk factors, higher coffee consumption was associated with <b>lower</b> risk for stroke (22 to 25% lower risk in those who consumed at least 1 cup compared with those who drank</i></p>

	<p><i>less than 1 cup).</i></p> <p>The researchers did <b>not</b> distinguish between caffeinated and decaffeinated coffee because almost all coffee consumption in Sweden is caffeinated coffee.</p> <p><i>Why would coffee lower stroke risk? Coffee has been found to affect inflammation, oxidative stress, and improve insulin sensitivity, all of which can lower stroke risk.</i></p> <p><i>Stroke. 2011;42:908-12</i></p>
<p><b>16</b> <b>Coffee consumption and heart disease risk</b></p>	<p>This study reviewed 21 large studies with over 400,000 participants, ages 30 to 75 at baseline. The follow-up period varied from 4 to 32 years during which 15,600 cases of coronary heart disease were reported.</p> <p>Pooling all of the study data, higher coffee consumption had no effect on heart disease risk, but among women, higher consumption was associated with slightly lower risk for CHD. <b>The study's conclusion was that coffee consumption is not associated with higher risk for coronary heart disease.</b></p> <p><i>Int J Cardiol. 2009;137:216-25</i></p>
<p><b>17</b> <b>Recommendations</b></p>	<p>Research seems to point to a protective effect of coffee against major health risks, like heart disease and stroke. Most of the studies did not distinguish between caffeinated and decaffeinated coffee and in fact, most were conducted in Sweden where coffee is almost exclusively caffeinated.</p> <p>If you don't already drink coffee, you should not necessarily start drinking it, but if you do drink coffee then perhaps you can feel better about it than you did before.</p> <p>Caffeinated beverages DO contribute to hydration and can be included as part of your overall fluid intake. Are there any questions about coffee?</p>
<p><b>18</b> <b>Supplements - Picture</b></p>	<p>Older adults often take multiple prescription medications that can be affected by dietary supplements, which also are commonly used by older people. [You might stimulate interest by asking who takes dietary supplements and if they provide this information to their health care provider(s).]</p>
<p><b>19</b> <b>Supplement use</b></p>	<p>The Iowa Women's Health Study assessed vitamin and mineral supplement use in almost 39,000 older women. 85% of the women reported taking supplements, with 27% taking four or more supplements.</p> <p><i>Arch Internal Med. 2011; 171:1625-33</i></p>
<p><b>20</b> <b>Supplement use</b></p>	<p>A four-state research study looked at simultaneous use of prescription drugs and dietary supplements in 3,070 free-living men and women age 75 and older. About ¾ of the participants took at least one medication and supplement, 1/3 took three or more of each, and <b>10% took five or more of each.</b></p>

	<p>The most common medications that were taken along with supplements were nonsteroidal anti-inflammatory drugs, thyroid drugs, and estrogens. <b>The potential for drug interaction is very high</b> and older adults need to get accurate information from their pharmacist and/or the <b>National Center for Complementary and Alternative Medicine</b> about the supplements that they are using [website on the slide].</p> <p><i>J Am Geriatric Soc.</i> 2009;57:1197-1205</p> <p><b>[Medication interactions are addressed in the ENAFS Module <i>Healthy Living for Older Adults</i>. We also have an EDIS publication on this topic.]</b></p>
<p><b>21 Vitamin/ mineral supplements and mortality</b></p>	<p>In the Iowa Women’s Health Study that I mentioned before, the women self-reported their supplement use in 1986, 1997 and 2004. By the end of 2008, almost 16,000 or 40% of the women had died.</p> <p>The use of multivitamins, vitamin B<sub>6</sub>, folic acid, magnesium, iron, zinc, and copper supplements all were associated with <b>increased</b> risk of total mortality during the study. The strongest association was found with use of supplemental iron. Women who took calcium, on the other hand, were LESS likely to die during the study. <b>This study points to a need for older adults to discuss supplement use with their health care providers.</b></p> <p><i>Arch Internal Med.</i> 2011; 171:1625-33</p>
<p><b>22 Vitamin E</b></p>	<p>One of the more popular supplements that older adults take is vitamin E because of its role as an antioxidant and the belief that it reduces risk for heart disease. While it is true that <b>diets</b> rich in foods containing vitamin E are associated with lower risk of heart disease, vitamin E <b>supplements</b> have NOT been found to reduce risk and may even increase overall risk of death.</p>
<p><b>23 AHA recommendation</b></p>	<p>Given the disappointing results from a number of vitamin E studies, the American Heart Association does NOT support the use of vitamin E supplements for prevention of cardiovascular disease. They <b>do</b> recommend <b>diets</b> high in antioxidant vitamins, including vitamin E.</p> <p>How do you choose a healthful diet that is rich in antioxidants and that provides all of the nutrients that you need? You can get help from USDA nutritionists who developed MyPlate ...</p>
<p><b>24 Healthy Eating: MyPlate</b></p>	<p>MyPlate is the icon that represents USDA’s food patterns, which are based on the Dietary Guidelines for Americans 2010. The Guidelines reflect the latest research in diet and health. The goals of the Dietary Guidelines and MyPlate are to reduce diet-related diseases and to promote good health and healthy body weight.</p>
<p><b>25 MPOA - front</b></p>	<p>University of Florida IFAS Extension faculty developed MyPlate for Older Adults to address special nutritional needs in people 60 and older. This teaching tool focuses on diet and physical activity since they are both important for a healthy lifestyle.</p>

	<p>What do you notice about the foods that represent each of the five food groups in this picture? <b>[They might mention the canned or frozen foods, which provide options for ease of eating, preparation, and/or cost; also, low-fat options are included to decrease fat and calorie intake, which is important for many older adults.]</b></p> <p>Which of the figures across the top do you relate to? Why? Which of the activities shown are ones that you do on a regular basis or some of the time? What other types of physical activity do you enjoy? <b>[The silhouettes include couples, a woman working in a garden, someone in a wheelchair, and a multi-generational pair playing catch. One couple is walking, while another pair is dancing. The take home messages are that a variety of activities can be selected and anyone can participate in active living.]</b></p>
<p><b>26</b> <b>MPOA - back</b></p>	<p>The back of MPOA can help you select a healthful diet, with foods from all of the food groups. There are tips for making healthful choices from each food group and a guide to how much food to eat, based on an 1,800 calorie diet. Some people need fewer calories and others may need to eat more calories.</p> <p><b>[The publication <a href="http://fyics.ifas.ufl.edu/extension/hnfs">Using MyPlate in Your Life: Older Adults</a> found at the FYCS website (<a href="http://fyics.ifas.ufl.edu/extension/hnfs">http://fyics.ifas.ufl.edu/extension/hnfs</a>) can be used to select a calorie level and foods to build a healthful diet.]</b></p>
<p><b>27</b> <b>ENAFS</b></p>	<p>The ENAFS – Elder Nutrition and Food Safety – program aims to help older adults stay healthy and independent. We have been providing nutrition and health education for Floridians since 1999. In many counties Extension agents and/or volunteers teach classes at the congregate nutrition sites and other community locations.</p> <p>You can find hundreds of free downloadable consumer fact sheets and activity sheets at the UF IFAS Extension website.</p>
<p><b>28</b> <b>For More Information</b></p>	<p>To get reliable nutrition and health information, please come to other Extension classes. <b>[Here would be a good place to mention classes that you will be teaching or special events that are coming up. If you have a Florida Master Food and Nutrition Volunteer program in your county, provide them with information about the program and how to apply.]</b></p> <p>Local dietitians, university newsletters like the Tufts Health &amp; Nutrition Letter or the UC Berkeley Wellness Letter, and books and magazine articles written by reputable and qualified authors, all can provide you with reliable information. We recommend websites that are .edu, .gov and some .org sites. If a site is trying to sell you products, then you need to look critically at the information they provide.</p>
<p><b>29</b> <b>Acknowledgement</b></p>	<p>Our state nutrition specialist, Dr. Linda Bobroff, developed this slide set and provided it to us for use in our counties.</p>



<b>30</b> Any questions?	
<b>31</b> Let's play BINGO!	<p><b>[This is an optional activity. Alternatively you might want to use one of the Chair Dancing videos for a more active activity that older adults enjoy.]</b></p> <p>We developed an ENAFS BINGO game that is not only fun but is educational since it includes tips that are read along with the letter/number combinations. We have prizes, so be sure to pay attention.</p> <p><b>[There are 40 unique BINGO cards included on the CD, so you can use the game with a fairly large group.]</b></p>