Supplementary Online Content

The Age-Related Eye Disease Study 2 (AREDS2) Research Group. Lutein + zeaxanthin and omega-3 fatty acids for age-related macular degeneration: the Age-Related Eye Disease Study 2 (AREDS2) randomized clinical trial. JAMA. doi:10.1001/jama.2013.4997

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This supplementary material has been provided by the authors to give readers additional information about their work.
**eTable 1.** Comparison of Participating and Nonparticipating AREDS2 Subjects in the Secondary Randomization of the Variations of the AREDS Supplement

<table>
<thead>
<tr>
<th>Comparison of Participating and Non-participating AREDS2 Subjects in the Secondary Randomization</th>
<th>Agree to Second Randomization?</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline Characteristics</td>
<td>No N (%)</td>
<td>Yes N (%)</td>
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<tr>
<td></td>
<td>N=1167</td>
<td>N=3036</td>
</tr>
<tr>
<td>Race</td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>1122 (96.1)</td>
<td>2936 (96.7)</td>
</tr>
<tr>
<td>Black or African American</td>
<td>16 (1.4)</td>
<td>38 (1.3)</td>
</tr>
<tr>
<td>Asian</td>
<td>13 (1.1)</td>
<td>21 (0.7)</td>
</tr>
<tr>
<td>American Indian</td>
<td>0 (0.0)</td>
<td>6 (0.2)</td>
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<tr>
<td>Native Hawaiian or other Pacific Islander</td>
<td>0 (0.0)</td>
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<tr>
<td>Other</td>
<td>16 (1.4)</td>
<td>32 (1.1)</td>
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<td>Ethnicity</td>
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<td>Hispanic Origin</td>
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<td>62 (2.1)</td>
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<td>Age at Randomization (in years)</td>
<td>Median (Inter-Quartile Range)</td>
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<td>Female Gender*</td>
<td>708 (60.7)</td>
<td>1680 (55.3)</td>
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<td>Large Drusen bilateral</td>
<td>765 (65.5)</td>
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<td>Advanced AMD¹ one eye, Large Drusen fellow eye</td>
<td>399 (34.2)</td>
<td>1069 (35.2)</td>
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<td>Bilateral Advanced AMD</td>
<td>3 (0.3)</td>
<td>8 (0.3)</td>
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<td>Education*</td>
<td>Grade 11 or Less</td>
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<td>High School Graduate</td>
<td>271 (23.2)</td>
<td>792 (26.1)</td>
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<td>Some College or Associate’s Degree</td>
<td>279 (23.9)</td>
<td>862 (28.4)</td>
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<td>Bachelor’s Degree</td>
<td>230 (19.7)</td>
<td>553 (18.2)</td>
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<td>Post-graduate Work</td>
<td>275 (23.6)</td>
<td>589 (19.4)</td>
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<tr>
<td>Refused to Answer</td>
<td>20 (1.7)</td>
<td>58 (1.9)</td>
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<tr>
<td>Diabetes Mellitus</td>
<td>134 (11.5)</td>
<td>412 (13.6)</td>
</tr>
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</table>

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<thead>
<tr>
<th>Smoking Status*</th>
<th>Never Smoked</th>
<th>Former Smoker</th>
<th>Current Smoker</th>
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<tbody>
<tr>
<td></td>
<td>580 (49.7)</td>
<td>582 (49.9)</td>
<td>5 (0.4)</td>
</tr>
<tr>
<td></td>
<td>1244 (41.0)</td>
<td>1515 (49.9)</td>
<td>277 (9.1)</td>
</tr>
</tbody>
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*P<.05
### eTable 2. Serum and Plasma Values Collected at Baseline, Year 1, Year 3, and Year 5, by Study Treatment Group in the Primary Analyses of Lutein + Zeaxanthin and DHA + EPA

<table>
<thead>
<tr>
<th>Nutrient</th>
<th>Placebo</th>
<th>Lutein + zeaxanthin</th>
<th>DHA + EPA</th>
<th>Lutein + zeaxanthin and DHA + EPA</th>
<th>p-value (treated vs. untreated)*</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Lutein + zeaxanthin (ug/dL)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Baseline:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>147</td>
<td>133</td>
<td>125</td>
<td>140</td>
<td>19.1 (12.9-28.4)</td>
</tr>
<tr>
<td>Median (IQR)</td>
<td>17.8 (11.8-25.9)</td>
<td>18.3 (12.7-25.4)</td>
<td>17.7 (12.8-24.8)</td>
<td>140</td>
<td></td>
</tr>
<tr>
<td><strong>Year 1</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>147</td>
<td>131</td>
<td>124</td>
<td>138</td>
<td>50.8 (37.1-68.7)</td>
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<tr>
<td>Median (IQR)</td>
<td>16.9 (12.5-23.6)</td>
<td>57.6 (41.6-74.2)</td>
<td>16.8 (12.9-25.9)</td>
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<td><strong>Year 3</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>136</td>
<td>120</td>
<td>108</td>
<td>124</td>
<td>56.8 (38.3-78.3)</td>
</tr>
<tr>
<td>Median (IQR)</td>
<td>17.15 (12.4-22.5)</td>
<td>59.6 (44.1-78.0)</td>
<td>17.3 (12.7-24.2)</td>
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</tr>
<tr>
<td><strong>Year 5</strong></td>
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<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>N</td>
<td>91</td>
<td>82</td>
<td>78</td>
<td>83</td>
<td>47.3 (35.6-63.2)</td>
</tr>
<tr>
<td>Median (IQR)</td>
<td>18.4 (11.6-24.6)</td>
<td>48.3 (38.3-75.3)</td>
<td>15.8 (12.9-26.9)</td>
<td>83</td>
<td></td>
</tr>
<tr>
<td><strong>DHA (mmol/L)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>p&lt;0.001</td>
</tr>
<tr>
<td><strong>Baseline</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>147</td>
<td>132</td>
<td>125</td>
<td>140</td>
<td>156 (126-210)</td>
</tr>
<tr>
<td>Median (IQR)</td>
<td>152 (119-206)</td>
<td>156 (121-191)</td>
<td>171 (132-220)</td>
<td>140</td>
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<td><strong>Year 1</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>144</td>
<td>127</td>
<td>118</td>
<td>133</td>
<td>198 (162-252)</td>
</tr>
<tr>
<td>Median (IQR)</td>
<td>140 (109-191)</td>
<td>143 (112-193)</td>
<td>227 (170-584)</td>
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<tr>
<td><strong>Year 3</strong></td>
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<td>N</td>
<td>133</td>
<td>117</td>
<td>103</td>
<td>120</td>
<td>240 (190-297)</td>
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<td>Median (IQR)</td>
<td>154 (128-212)</td>
<td>161 (125-212)</td>
<td>246 (207-304)</td>
<td>120</td>
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<tr>
<td><strong>Year 5</strong></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>85</td>
<td>76</td>
<td>71</td>
<td>77</td>
<td>249 (189-292)</td>
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<tr>
<td>Median (IQR)</td>
<td>174 (127-221)</td>
<td>162 (127-211)</td>
<td>265 (206-313)</td>
<td>77</td>
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</tr>
<tr>
<td><strong>EPA (mmol/L)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>p&lt;0.001</td>
</tr>
<tr>
<td><strong>Baseline</strong></td>
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<td></td>
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</tr>
<tr>
<td>N</td>
<td>147</td>
<td>132</td>
<td>125</td>
<td>140</td>
<td>68 (44-94)</td>
</tr>
<tr>
<td>Median (IQR)</td>
<td>59 (47-85)</td>
<td>62 (44-88)</td>
<td>72 (46-104)</td>
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</tr>
<tr>
<td><strong>Year 1</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>144</td>
<td>127</td>
<td>117</td>
<td>132</td>
<td>129 (89-179)</td>
</tr>
<tr>
<td>Median (IQR)</td>
<td>57 (42-79)</td>
<td>59 (38-88)</td>
<td>146 (104-206)</td>
<td>132</td>
<td></td>
</tr>
<tr>
<td><strong>Year 3</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>133</td>
<td>117</td>
<td>103</td>
<td>120</td>
<td>152 (109-221)</td>
</tr>
<tr>
<td>Median (IQR)</td>
<td>60 (46-86)</td>
<td>65 (47-93)</td>
<td>153 (116-220)</td>
<td>120</td>
<td></td>
</tr>
<tr>
<td><strong>Year 5</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
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<td>N</td>
<td>85</td>
<td>76</td>
<td>71</td>
<td>77</td>
<td>134 (96-222)</td>
</tr>
<tr>
<td>Median (IQR)</td>
<td>61 (44-97)</td>
<td>65 (47-98)</td>
<td>163 (110-281)</td>
<td>77</td>
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</table>
* P-value from mixed models of main treatment effect over time (lutein + zeaxanthin vs. no lutein + zeaxanthin for lutein + zeaxanthin serum values; DHA + EPA vs. no DHA + EPA for DHA and EPA serum values).

IQR: Interquartile range
### eTable 3. Serum Zinc Collected at Baseline, Year 1, Year 3, and Year 5, by Zinc Treatment Group

<table>
<thead>
<tr>
<th>Nutrient</th>
<th>Zinc (80 mg)</th>
<th>Low Zinc (25 mg)</th>
<th>p-value*</th>
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</thead>
<tbody>
<tr>
<td>Serum zinc (ug/dL)</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Baseline</td>
<td>N</td>
<td>Median (IQR)</td>
<td>0.87</td>
</tr>
<tr>
<td></td>
<td>186</td>
<td>95.7 (82.9-110.0)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>189</td>
<td>95.5 (84.4-113.0)</td>
<td></td>
</tr>
<tr>
<td>Year 1</td>
<td>N</td>
<td>Median (IQR)</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td></td>
<td>179</td>
<td>101.0 (86.1-117.0)</td>
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</tr>
<tr>
<td></td>
<td>181</td>
<td>86.2 (77.1-96.5)</td>
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</tr>
<tr>
<td>Year 3</td>
<td>N</td>
<td>Median (IQR)</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td></td>
<td>159</td>
<td>99.3 (89.1-118.3)</td>
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</tr>
<tr>
<td></td>
<td>162</td>
<td>90.3 (79.0-102.0)</td>
<td></td>
</tr>
<tr>
<td>Year 5</td>
<td>N</td>
<td>Median (IQR)</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td></td>
<td>122</td>
<td>95.0 (83.9-112.0)</td>
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</tr>
<tr>
<td></td>
<td>118</td>
<td>85.3 (77.0-94.2)</td>
<td></td>
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</table>

IQR: Interquartile range
**eTable 4. Serum Beta Carotene Collected at Baseline, Year 1, Year 3, and Year 5, by Beta Carotene Treatment Group**

<table>
<thead>
<tr>
<th>Nutrient</th>
<th>N</th>
<th>Beta-carotene</th>
<th>No Beta-carotene</th>
<th>p-value*</th>
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<tr>
<td>Serum trans beta-carotene (ug/dL)</td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>Baseline</td>
<td>N</td>
<td>182</td>
<td>193</td>
<td>0.11</td>
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<td></td>
<td>Median (IQR)</td>
<td>66.3 (38.3-103.1)</td>
<td>54.3 (32.0-95.2)</td>
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</tr>
<tr>
<td>Year 1</td>
<td>N</td>
<td>177</td>
<td>182</td>
<td>&lt;0.0001</td>
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<tr>
<td></td>
<td>Median (IQR)</td>
<td>83.8 (54.8-127.6)</td>
<td>23.0 (13.4-36.4)</td>
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</tr>
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<td>Year 3</td>
<td>N</td>
<td>152</td>
<td>173</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td></td>
<td>Median (IQR)</td>
<td>85.8 (48.6-120.2)</td>
<td>20.9 (12.4-32.8)</td>
<td></td>
</tr>
<tr>
<td>Year 5</td>
<td>N</td>
<td>113</td>
<td>125</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td></td>
<td>Median (IQR)</td>
<td>73.9 (38.7-117.2)</td>
<td>20.9 (12.6-33.3)</td>
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</tr>
</tbody>
</table>

IQR: Interquartile range
**eTable 5.** Comparison of Serum Levels of Lutein + Zeaxanthin and DHA + EPA in the Age-Related Eye Disease Study 2 (AREDS2) Participants and the National Health and Nutrition Examination Survey (NHANES) Participants

<table>
<thead>
<tr>
<th>Nutrients</th>
<th>Serum Levels of Study Cohorts</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>NHANES</td>
<td>AREDS2</td>
</tr>
<tr>
<td>Lutein + zeaxanthin (µg/dL)</td>
<td>15.0 (14.4-15.7)</td>
<td>17.9 (17.1-18.8)</td>
</tr>
<tr>
<td>DHA (mmol/L)</td>
<td>142 (131-155)</td>
<td>161 (155-168)</td>
</tr>
<tr>
<td>EPA (mmol/L)</td>
<td>49.0 (42.5-56.5)</td>
<td>65.1 (61.9-68.4)</td>
</tr>
</tbody>
</table>

DHA: Docosahexanoic acid  
EPA: Eicosapentanoic acid
**eFigure 1.** Comparison of the Main Effects of Lutein + Zeaxanthin vs No Lutein + Zeaxanthin on Progression to Advanced AMD, Stratified by Various Groupings of Dietary Intake of Lutein + Zeaxanthin (A, Tertiles; B, Quartiles; C, Deciles)

**eFigure 1A.** Comparison of the Main Effects of Lutein + Zeaxanthin vs No Lutein + Zeaxanthin, Stratified by Various Groupings of Tertiles Intake of Lutein + Zeaxanthin for the Development of Advanced AMD

<table>
<thead>
<tr>
<th>Lutein/Zeaxanthin Dietary Intake Tertile</th>
<th>Treatment No. Events</th>
<th>Placebo No. Events</th>
<th>Hazard Ratio (95%CI)</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>871</td>
<td>233</td>
<td>0.83 (0.69-1.00)</td>
<td>0.05</td>
</tr>
<tr>
<td>2</td>
<td>876</td>
<td>246</td>
<td>0.91 (0.75-1.10)</td>
<td>0.31</td>
</tr>
<tr>
<td>3</td>
<td>931</td>
<td>237</td>
<td>0.85 (0.70-1.03)</td>
<td>0.09</td>
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</table>
**eFigure 1B.** Comparison of the Main Effects of Lutein + Zeaxanthin vs No Lutein + Zeaxanthin, Stratified by Various Groupings of Quartiles Intake of Lutein + Zeaxanthin

<table>
<thead>
<tr>
<th>Lutein/Zeaxanthin Dietary Intake Quartile</th>
<th>Median</th>
<th>IQR</th>
<th>Treatment No. Eyes</th>
<th>Placebo No. Eyes</th>
<th>Hazard Ratio (95%CI)</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>754</td>
<td>595-905</td>
<td>649</td>
<td>174</td>
<td>666</td>
<td>220</td>
</tr>
<tr>
<td>2</td>
<td>1288</td>
<td>1162-1433</td>
<td>656</td>
<td>178</td>
<td>696</td>
<td>192</td>
</tr>
<tr>
<td>3</td>
<td>1955</td>
<td>1759-2170</td>
<td>658</td>
<td>176</td>
<td>702</td>
<td>202</td>
</tr>
<tr>
<td>4</td>
<td>3511</td>
<td>2830-4847</td>
<td>715</td>
<td>188</td>
<td>672</td>
<td>203</td>
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</tbody>
</table>

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**eFigure 1C.** Comparison of the Main Effects of Lutein + Zeaxanthin vs No Lutein + Zeaxanthin, Stratified by Various Groupings of Deciles Intake of Lutein + Zeaxanthin

<table>
<thead>
<tr>
<th>Lutein/Zeaxanthin Dietary Intake Decile</th>
<th>Median IQR</th>
<th>Treatment No. Eyes</th>
<th>Placebo No. Eyes</th>
<th>Hazard Ratio (95%CI)</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>552 433-635</td>
<td>267 75</td>
<td>216 111</td>
<td>0.65 (0.47-0.90)</td>
<td>0.01</td>
</tr>
<tr>
<td>2</td>
<td>823 755-881</td>
<td>258 68</td>
<td>269 75</td>
<td>0.87 (0.61-1.24)</td>
<td>0.44</td>
</tr>
<tr>
<td>3</td>
<td>1030 972-1085</td>
<td>262 67</td>
<td>266 62</td>
<td>1.10 (0.76-1.59)</td>
<td>0.62</td>
</tr>
<tr>
<td>4</td>
<td>1244 1168-1287</td>
<td>252 74</td>
<td>278 92</td>
<td>0.84 (0.60-1.18)</td>
<td>0.31</td>
</tr>
<tr>
<td>5</td>
<td>1465 1406-1529</td>
<td>266 68</td>
<td>288 72</td>
<td>0.92 (0.64-1.33)</td>
<td>0.66</td>
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<tr>
<td>6</td>
<td>1720 1650-1799</td>
<td>272 76</td>
<td>270 85</td>
<td>0.90 (0.64-1.26)</td>
<td>0.53</td>
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<tr>
<td>7</td>
<td>2036 1955-2120</td>
<td>242 65</td>
<td>296 88</td>
<td>0.78 (0.55-1.10)</td>
<td>0.16</td>
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<tr>
<td>8</td>
<td>2452 2337-2579</td>
<td>305 71</td>
<td>252 65</td>
<td>0.88 (0.61-1.26)</td>
<td>0.48</td>
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<tr>
<td>9</td>
<td>3196 2958-3512</td>
<td>277 84</td>
<td>269 74</td>
<td>1.06 (0.75-1.49)</td>
<td>0.76</td>
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<tr>
<td>10</td>
<td>5249 4512-6806</td>
<td>277 68</td>
<td>287 93</td>
<td>0.76 (0.54-1.06)</td>
<td>0.11</td>
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eFigure 2. Hazard Ratios of Mortality for Each of the Nutrients Evaluated in AREDS2

<table>
<thead>
<tr>
<th>Nutrient Effect</th>
<th>Treatment N No. Events</th>
<th>Placebo N No. Events</th>
<th>Hazard Ratio (95%CI)</th>
<th>P</th>
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<tbody>
<tr>
<td>L/Z Main Effect</td>
<td>2123 191</td>
<td>2080 177</td>
<td>1.06 (0.87-1.31)</td>
<td>0.56</td>
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<tr>
<td>DHA/EPA Main Effect</td>
<td>2147 200</td>
<td>2056 168</td>
<td>1.16 (0.94-1.42)</td>
<td>0.16</td>
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<tr>
<td>L/Z vs. Placebo</td>
<td>1004 87</td>
<td>1012 81</td>
<td>1.04 (0.77-1.40)</td>
<td>0.81</td>
</tr>
<tr>
<td>DHA/EPA vs. Placebo</td>
<td>1068 96</td>
<td>1012 81</td>
<td>1.13 (0.84-1.52)</td>
<td>0.41</td>
</tr>
<tr>
<td>L/Z+DHA/EPA vs. Placebo</td>
<td>1079 104</td>
<td>1012 81</td>
<td>1.23 (0.92-1.65)</td>
<td>0.16</td>
</tr>
<tr>
<td>Low Zinc Main Effect</td>
<td>1514 141</td>
<td>1522 140</td>
<td>1.02 (0.81-1.29)</td>
<td>0.87</td>
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<tr>
<td>Beta-Carotene Main Effect</td>
<td>1348 118</td>
<td>1341 116</td>
<td>1.01 (0.78-1.31)</td>
<td>0.94</td>
</tr>
</tbody>
</table>
eAppendix. The Age-Related Eye Disease Study 2 (AREDS2) Research Group

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Ashley Emerson (Assistant Coordinator)
Alycia Fleming (Ophthalmic Technician)
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Jorge Rodriguez (Photographer)
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(051) Penn State M.S. Hershey Medical Center
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(052) Palmetto Retina Center
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Lloyd Clark, MD, (Ophthalmologist)
David Johnson, MD, (Ophthalmologist)
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Mallie Taylor (Assistant Coordinator)
Tiffany Swinford (Ophthalmic Technician)
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(053) Pennsylvania Retina Specialists, PC
Michael Banach, MD, (Site PI)
Lawrence Ho, MD, (Ophthalmologist)
Richard Lanning, MD, (Ophthalmologist)
Thomas R. Pheasant, MD, (Ophthalmologist)
Jay G. Preskyn, MD, (Ophthalmologist)
Steven Truong, MD, (Ophthalmologist)
Julia Teatsworth, COT, (Clinic Coordinator)
Michelle Dietrich (Assistant Coordinator)
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Ann Miller (Ophthalmic Technician)
Megan Rakes (Ophthalmic Technician)
Teresa Siagle (Ophthalmic Technician)
Michelle Richards (Photographer)
Patricia Schuessler (Photographer)
Lacy Stover (Photographer)

(054) Retina Consultants, PLLC
Paul Beer, MD, (Site PI)
Naomi S. Falk, MD, (Ophthalmologist)
Mary Beth Shannon (Clinic Coordinator)
Jeannie Olmeda (Ophthalmic Technician)
Don Berdeen (Photographer)
Joseph F. Fisher, Jr. (Photographer)

(055) University of Iowa
James Folk, MD, (Site PI)
Stephen Russell, MD, (Ophthalmologist)
Barbara Taylor (Clinic Coordinator)
Connie Hinz (Assistant Coordinator)
Jean Walshire (Assistant Coordinator)
Heather Stockman (Ophthalmic Technician)
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(056) Wills Eye Hospital/Mid Atlantic Retina
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Joseph Maguire, MD, (Site PI)
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Michael Dollin, MD, (Ophthalmologist)
Sunir Garg, MD, (Ophthalmologist)
Adam Gerstenblith, MD, (Ophthalmologist)
Julia Haller, MD, (Ophthalmologist)
Allen C. Ho, MD, (Ophthalmologist)
Jason Hsu, MD, (Ophthalmologist)
Richard Kaiser, MD, (Ophthalmologist)
John Pitcher, MD, (Ophthalmologist)
Carl Regillo, MD, (Ophthalmologist)
Rajiv Shah, MD, (Ophthalmologist)
Marc Spirn, MD, (Ophthalmologist)
William Tasman, MD, (Ophthalmologist)
James Vander, MD, (Ophthalmologist)
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(057) Doheny Eye Institute USC
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Margaret Padilla (Assistant Coordinator)
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(058) The Retina Group of Washington
Richard Garfinkel, MD, (Site PI)
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Marcus Colyer, MD, (Ophthalmologist)
William Deegan, III, MD, (Ophthalmologist)
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Robert Murphy, MD, (Ophthalmologist)
Michael Osman, MD, (Ophthalmologist)
Michael Rivers, MD, (Ophthalmologist)
Reginald Sanders, MD, (Ophthalmologist)
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Jeanne Kirshon (Assistant Coordinator)
Tanya Alexander Snowden (Assistant Coordinator)
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Alycia Cronise (Ophthalmic Technician)
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Janine Newgen (Ophthalmic Technician)
Justin Davis (Photographer)
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Robert Frantz (Photographer)
Bryan Murphy (Photographer)
Steve Rauch (Photographer)

(060) The Medical College of Wisconsin
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Dennis P. Han, MD, (Ophthalmologist)
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Vesper Williams (Assistant Coordinator)
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Judy Flanders (Ophthalmic Technician)
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Joe Beringer (Photographer)
Krisy Kilbrer (Photographer)
Kathy Selchert (Photographer)

(061) John Moran Eye Center
Paul Bernstein, MD, PhD, (Site PI)
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(063) Loma Linda University
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Christy Quesada (Assistant Coordinator)
William Kiernan, OD, (Ophthalmic Technician)
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(064) Baylor College of Medicine
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David Johnson, MD, (Ophthalmologist)
Alan Kimura, MD, (Ophthalmologist)
Mimi Liu, MD, (Ophthalmologist)
Stephen Petty, MD, (Ophthalmologist)
John Zilis, MD, (Ophthalmologist)
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(074) UNC Department of Ophthalmology
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(075) University Health Care - Mason Eye Institute
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(076) University of Tennessee HSC
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Tracy Murray, (Ophthalmic Technician)
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(077) Fletcher Allen Health Care
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Theresa Goddard, (Clinic Coordinator)
Liza Jarrett Beaudette, (Ophthalmic Technician)
Nina Changelian-Aitken, (Ophthalmic Technician)
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(078) Mayo Clinic
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Jean Burrington, COA, (Ophthalmic Technician)
Shannon Howard, COA, (Ophthalmic Technician)
Joan Overend, (Ophthalmic Technician)
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(079) The Retina Institute
Kevin J. Blinder, MD, (Site PI)
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Daniel P. Joseph, MD, PhD, (Ophthalmologist)
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(080) Yale University Eye Center
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(081) Vanderbilt Eye Institute
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Elaine Lok (Photographer)
Garvin Munn (Photographer)
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(082) UMDNJ
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Marco Zarbin, MD, PhD, (Ophthalmologist)
Catherine Fay (Clinic Coordinator)
Michael Lazar (Photographer)
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(084) The University of Illinois
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Tametha Johnson (Ophthalmic Technician)
Yesenia Ovando (Ophthalmic Technician)
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Mark Janowicz (Photographer)

(085) Jules Stein Eye Institute
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Michael Gorin, MD, PhD, (Ophthalmologist)
Gad Heilweil, MD, (Ophthalmologist)
Hamid Hosseini, MD, (Ophthalmologist)
Jean-Pierre Hubschman, MD, (Ophthalmologist)
Allan Kreiger, MD, (Ophthalmologist)
Tara Young McCannel, MD, (Ophthalmologist)
Carolyn Pan, MD, (Ophthalmologist)
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Rosaleen Ostrick (Assistant Coordinator)
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Kristin Lipka (Photographer)
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(086) Univ. of Alabama at Birmingham
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(088) Ohio State University
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Fred Davidorf, MD, (Ophthalmologist)
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Christina Stetson (Office Manager)
Jeri Perry (Ophthalmic Technician)
Scott Savage (Photographer)

(089) Duke University
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Stefanie Schuman, MD, (Ophthalmologist)
Neeru Sarin, MBBS, (Clinic Coordinator)
Jim Crowell (Photographer)
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Michael Kelly (Photographer)
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(090) University of California, Davis
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Allan Hunter, MD, (Ophthalmologist)
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(091) Manhattan Eye, Ear and Throat Hospital
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Lawrence Yannuzzi, MD, (Ophthalmologist)
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Nancy Gonzalez (Photographer)

(092) University of Florida
Sandeep Grover, MD, (Site PI)
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Chirag Patel, MD, (Assistant Coordinator)
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(093) Shiley Eye Center - UCSD
Henry Ferreyra, MD, (Site PI)
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Gabriel Balea (Photographer)
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(094) Scheie Eye Institute
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Bill Nyberg (Photographer)
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(095) University of Rochester Eye Institute
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Melissa Keim (Ophthalmic Technician)
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(179) Washington University School of Medicine
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