Matcha Green Tea is fine powder green tea made from shade-grown tea leaves traditionally consumed in Japanese tea ceremonies. It is currently also used to dye mochi, soba noodles, green tea ice cream, and wagashi.

Cost: $16.99 from Whole Foods (Sold online for $15-18)
Cost per serving: $0.55
1. There are more total catechins (2.6-6.7 x more)\(^1\) in 1 serving of matcha powder than other types of tea, but not 100x more. The antioxidant claim may refer to the ORAC score, however in a statement released by the USDA in 2010, ORAC values are no longer used because of mounting evidence that antioxidant levels “have no relevance to the effects of specific bioactive compounds, including polyphenols, on human health.”\(^2\)

2. The claim that this product contains 10-15 times more nutrients than other types of teas likely refers to the vitamin A and C content. Green and black tea do not contain these vitamins\(^3\), so matcha tea is a better source and provides them in a substantial amounts compared to the RDA for vitamin A (700-900 mcg/d) but not for vitamin C (75-90 mg/d).

3. A review of in vitro, animal, and human research by Hamer in 2007 indicated multiple benefits from green tea at varying flavonoid doses including improved gut and oral health (0.5-10 mg/L), infection resistance (2-5 mg/L), and enhanced innate immunity (700-900 mg/day)\(^4\). The in-vitro evidence supporting tea intake to reduce inflammatory cytokines (via EGCG blocking NFkB activation inducing expression of nitric oxide synthase) is effective only at supraphysiological doses, and an RCT studying DM2 patients who consumed 900 ml of green tea for 4 weeks had no significant reduction in CRP compared to the control\(^5\).

3. One of the functions of the liver is to detoxify waste products from the blood; dietary or supplemental products claiming to assist or improve blood detoxification do so without scientific backing and in direct contradiction with known physiological functions of the human body. Similarly, the kidneys tightly control the body’s pH, and little evidence has been published to indicate that dietary intake has a significant impact on blood alkalinity.

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**Matcha Green Tea Claims:**
1. 10-15 times the nutrient content and **100 times more antioxidants** than white, black, rooibos, and yerba mate teas
2. Potent antioxidants strengthen the immune system by protecting against free radicals
3. Powerful and renowned catechin EGCG and chlorophyll alkalize and detoxify the blood

### Flavonoid content by type of tea, brewed in tap water

<table>
<thead>
<tr>
<th>Type of Catechin</th>
<th>EC (mg/100 g)</th>
<th>Catechin (mg/100 g)</th>
<th>EGC + ECG + EGCG (mg/100 g)</th>
<th>Total Catechins (mg/100 g)</th>
<th>Vitamin C (mg/100 g)</th>
<th>Vitamin A (mcg/100 g)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Type of Tea</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Green Tea</td>
<td>20.8</td>
<td>67.6</td>
<td>235.8</td>
<td>324.2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Black Tea</td>
<td>2.1</td>
<td>1.5</td>
<td>23.1</td>
<td>26.7</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Oolong Tea</td>
<td>2.5</td>
<td>0.2</td>
<td>46.9</td>
<td>49.6</td>
<td>Unknown</td>
<td>Unknown</td>
</tr>
<tr>
<td>White Tea</td>
<td>0</td>
<td>0</td>
<td>69.5</td>
<td>69.5</td>
<td>Unknown</td>
<td>Unknown</td>
</tr>
<tr>
<td>5 g Green Foods™ Matcha Green Tea</td>
<td>12</td>
<td>None reported</td>
<td>161</td>
<td>179</td>
<td>3</td>
<td>215</td>
</tr>
</tbody>
</table>

The claim that this product contains 10-15 times more nutrients than other types of teas likely refers to the vitamin A and C content. Green and black tea do not contain these vitamins\(^3\), so matcha tea is a better source and provides them in a substantial amounts compared to the RDA for vitamin A (700-900 mcg/d) but not for vitamin C (75-90 mg/d).

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Sources: