DISCLOSURE:

Michael Richman, M.D., serves as a consultant to Health Diagnostic Laboratory and is a member of the speaker’s bureau for Amarin Pharmaceuticals. Dr. Richman’s presentation will not include discussion of off-label or unapproved usage.

Coconut Oil Cardiovascular Benefits: Myth or Reality?

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Background on Coconut Oil:

- Edible oil extracted from matured coconuts harvested from the coconut palm (Cocos nucifera).
- Primary source of fat in the diets of millions, for generations throughout the tropical world.
- Applications in food, medicine, and industry.
- Heavily promoted by Coconut oil producers for a variety of health benefits.
Coconut Oil Health Benefits

- Cures/reverses Alzheimer’s disease
- Kills Candida fungus
- Improves Type I and Type II diabetes
- Improves/heals skin diseases including acne, eczema, psoriasis, rosacea
- Provides peak performance energy
- Increases metabolism
- Helps with hypothyroidism
- Raises body temperature
- Conditions and strengthens hair
- Kills lice
- Improves dandruff
- Kills many bacteria AND viruses
- Promotes weight loss
- Preserves muscle mass
- Promotes ketosis

Why Walk Away

- Saturated fats should be avoided
- Coconut oil high in saturated fats
- No better than eating butter

Saturated Fats in Common Vegetable Oils (source: Wikipedia)

<table>
<thead>
<tr>
<th>Vegetable Oils (not hydrogenated)</th>
<th>Saturated fatty acids</th>
<th>Mono-unsaturated fatty acids</th>
<th>Poly-unsaturated fatty acids</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canola (rapeseed)</td>
<td>7.365</td>
<td>63.276</td>
<td>28.317</td>
</tr>
<tr>
<td>Coconut</td>
<td>91.000</td>
<td>6.000</td>
<td>3.000</td>
</tr>
<tr>
<td>Corn</td>
<td>11.948</td>
<td>27.576</td>
<td>54.677</td>
</tr>
<tr>
<td>Cottonseed</td>
<td>25.900</td>
<td>17.800</td>
<td>51.900</td>
</tr>
<tr>
<td>Flaxseed/Linseed</td>
<td>6-9</td>
<td>10-22</td>
<td>68-89</td>
</tr>
<tr>
<td>Olive</td>
<td>8.4</td>
<td>20.42</td>
<td>71.16</td>
</tr>
<tr>
<td>Olive (exp)</td>
<td>14.000</td>
<td>72.000</td>
<td>14.000</td>
</tr>
<tr>
<td>Soy</td>
<td>68.000</td>
<td>32.000</td>
<td>8.000</td>
</tr>
<tr>
<td>Peanut</td>
<td>16.900</td>
<td>66.000</td>
<td>13.000</td>
</tr>
</tbody>
</table>
Heavy Saturated Fat Diets = High Cholesterol Levels

E.g.: Olive and soybean oils = ~15% percent saturated
Beef fat = ~50% saturated
Butter = ~63% saturated
Palm kernel oil = ~49% saturated
Coconut fat is 92% saturated!

✓ Coconut oil has more saturated fat than anything else.

Heavy Saturated Fat Diets = High Cholesterol Levels

✓ Saturated fats are found in animal fats, dairy, and tropical oils.
✓ Coconut oil has more saturated fat than anything else.

Heavy Saturated Fat Diets = High Cholesterol Levels

Recommendations against the consumption of large amounts of coconut oil:
✓ FDA
✓ WHO
✓ International College of Nutrition
✓ Dept. of Health & Human Services
✓ British National Health Service
✓ Dietitians of Canada
✓ ADA
✓ AHA
Heavy Saturated Fat Diets = High Cholesterol Levels

- High proportion of lauric acid
- Increases HDL cholesterol &
- Increases LDL cholesterol

Claims that Lauric acid increases HDL-C & improves cholesterol ratios is beneficial are not supported by recent studies failures: AIM-HIGH, HPS2-THRIVE

Supporters & Endorsers

- Who are the sponsoring organizations of scientific research asserting the benefits of coconut oil for cardiovascular health?
- Are the studies in peer-reviewed journals or "industry magazines"?
- Are they comparing apples to oranges? (mice are not human beings)

Coconut Research Center

- Coconut oil is associated with a beneficial lipid profile in pre-menopausal women in the Philippines. Asia Pac J Clin Nutr. 2012;21(2):358-65
Myth of Heart Health Benefits

✓ Coconut oil is a new and sexy topic
✓ Popular press & new food fads
✓ Too many internet experts
✓ Self-interested parties promote it

In Summary

✓ Coconut oil DOES have some benefits:
  o Medium chain triglycerides (MCTs) are very beneficial and necessary for certain gastrointestinal conditions
  o Coconut water is tasty & beneficial
✓ Coconut milk & coconut oil are harmful to humans from a cardiovascular standpoint

QUESTIONS & COMMENTS?