Food Fads: What’s the evidence?

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What is a Registered Dietitian?

- Accredited undergraduate program
- Accredited internship or practicum – very competitive
- Registration examination
- Member of the College of Dietitians of Ontario
- The term “Nutritionist” is not regulated in Ontario!
- Look for the RD credentials
Working with dietitians is cost-effective

INVEST $1 in dietitian services
SAVE $4 in drug costs

REDUCE health-related lost productivity by up to 64%
DECREASE disability days by up to 87%

Nutrition counselling by dietitians can help

REDUCE risk of developing type 2 diabetes by up to 70%
MANAGE food allergies and intolerances
IMPROVE blood pressure, and blood glucose and cholesterol levels
ACHIEVE and maintain a healthier weight

Employees deserve access to cost-effective dietitian services

Registered Dietitian (RD) Facts
- Tailored advice, practical solutions 100%
- University degree in foods and nutrition 100%
- Provincially regulated 100%
- Liability insurance 100%
- Professional code of ethics 100%

The title “dietitian” is protected by law, just like nurse or pharmacist. Only dietitians can use these initials: RD, P.D.X., D.L.P.

Find a Dietitian It’s easy! www.dietitians.ca/find

This infographic was prepared by the Consulting Dietitians Network. References are available at www.dietitians.ca/employe heal th.

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Food Fads

- Popular trends in food
- Usually short-term
- Not evidence-based
- Often endorsed by public figures
“Juicing”/“Cleansing”

- Consumption of food in liquid form (juices or smoothies)
- Lacks variety – may lack certain nutrients
- Does not “work” your gut
- Chopped liver?
- Weight loss?
- Not sustainable
Coconut Oil

What claims have you heard?

- Kills harmful bacteria and pathogens in the body
- Raises good cholesterol
- Burns body fat
- Lowers bad cholesterol
- Boosts brain function in Alzheimer’s patients
- Cures dry skin and functions as a sunscreen
# Coconut Oil

<table>
<thead>
<tr>
<th>Type of Fat</th>
<th>Grams of Saturated Fat (per 1 Tablespoon or 15mL)</th>
<th>Grams of Trans Fat (per 1 Tablespoon or 15mL)</th>
<th>Grams of Unsaturated Fat (per 1 Tablespoon or 15mL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Olive oil</td>
<td>1.9</td>
<td>0</td>
<td>11.4</td>
</tr>
<tr>
<td>Canola oil</td>
<td>1.0</td>
<td>0.3</td>
<td>13.0</td>
</tr>
<tr>
<td>Avocado oil</td>
<td>1.6</td>
<td>0</td>
<td>11.9</td>
</tr>
<tr>
<td>Safflower oil</td>
<td>1.0</td>
<td>0.1</td>
<td>12.2</td>
</tr>
<tr>
<td>Sunflower oil</td>
<td>1.4</td>
<td>0</td>
<td>12.4</td>
</tr>
<tr>
<td>Soybean</td>
<td>2.2</td>
<td>0.2</td>
<td>11.1</td>
</tr>
<tr>
<td>Butter, regular</td>
<td>7.4</td>
<td>0.7</td>
<td>3.5</td>
</tr>
<tr>
<td>Coconut oil</td>
<td>11.9</td>
<td>0*</td>
<td>1</td>
</tr>
<tr>
<td>Lard</td>
<td>5.2</td>
<td>0.2</td>
<td>7.3</td>
</tr>
<tr>
<td>Palm oil</td>
<td>6.7</td>
<td>0</td>
<td>6.3</td>
</tr>
<tr>
<td>Shortening</td>
<td>2.8</td>
<td>0</td>
<td>11</td>
</tr>
</tbody>
</table>
Medium Chain Triglycerides

- Present in coconut oil, palm kernel oil and dairy fats
- Fatty acids 6-12 carbon atoms in length
- Digested differently from other fatty acids
- More satiating compared to long chain fatty acids?
- Weight loss?
- More research is needed!
Chia seeds, flaxseeds, quinoa, oh my!

- Good sources of **protein**
- Good sources of **fibre**
- Seeds contain **omega-3** fatty acids (unsaturated)
- **Ground** flaxseed → better absorption of omega 3’s

<table>
<thead>
<tr>
<th>Food</th>
<th>Serving Size</th>
<th>Grams of Protein</th>
<th>Grams of Fibre</th>
<th>Grams of Unsaturated Fat</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chia seeds</td>
<td>60 mL (1/4 cup)</td>
<td>7</td>
<td>15</td>
<td>11</td>
</tr>
<tr>
<td>Flaxseeds (ground)</td>
<td>60 mL (1/4 cup)</td>
<td>5</td>
<td>8</td>
<td>10</td>
</tr>
<tr>
<td>Flaxseeds (whole)</td>
<td>60 mL (1/4 cup)</td>
<td>8</td>
<td>12</td>
<td>15</td>
</tr>
<tr>
<td>Quinoa</td>
<td>125 mL (1/2 cup)</td>
<td>4</td>
<td>3</td>
<td>1</td>
</tr>
</tbody>
</table>
Can foods be “super”? 

- **Quinoa Bowl**
  - Quinoa, Kale, Shredded Carrot, Sprouts, Lemon Herb Dressing
  - $7.00

- **Fresh Bowl**
  - Nappa Cabbage, Spiralized Zucchini, Shredded Carrot, Sprouts, Dried Mango, Sweet Ginger Dressing
  - $8.00

- **Protein Bowl**
  - Chickpeas, Quinoa, Tofu Feta, Kale, Red Pepper, Dried Cranberries, House Dressing
  - $9.00

- **Burger Bowl**
  - Romaine, Veggie Patty, Pickled Veg, Sprouts, House Dressing
  - $7.00
Functional Foods are an actual thing

- Offer health benefits beyond basic needs
- May help reduce risk of disease
- Contain “bioactive compounds”
- Examples: omega-3 fatty acids in fish, plant sterols in fortified orange juice and margarine, flavonoid/antioxidant (anthocyanin) in blueberries
Milks – yea or nay?

- Various types of “milk” – cow’s, goat’s, almond, cashew, coconut, rice, soy

- Consider **protein** content

- Consider **calcium** content

- Consider **vitamin D** content
### Milks – yea or nay?

<table>
<thead>
<tr>
<th>Food</th>
<th>Serving Size</th>
<th>Grams of Protein</th>
<th>Calcium Content</th>
<th>Vitamin D Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>Almond beverage</td>
<td>250 mL (1 cup)</td>
<td>1.6</td>
<td>312 mg</td>
<td>2.1 mcg</td>
</tr>
<tr>
<td>Cashew beverage</td>
<td>250 mL (1 cup)</td>
<td>0.5</td>
<td>223 mg</td>
<td>2.0 mcg</td>
</tr>
<tr>
<td>Coconut milk* (Raw)</td>
<td>60 mL (1/4 cup)</td>
<td>0.7</td>
<td>10 mg</td>
<td>0 mcg</td>
</tr>
<tr>
<td>Cow’s milk</td>
<td>250 mL (1 cup)</td>
<td>8.7</td>
<td>322 mg</td>
<td>2.6 mcg</td>
</tr>
<tr>
<td>Goat’s milk (enriched)</td>
<td>250 mL (1 cup)</td>
<td>9.2</td>
<td>345 mg</td>
<td>2.5 mcg</td>
</tr>
<tr>
<td>Rice beverage</td>
<td>250 mL (1 cup)</td>
<td>0.7</td>
<td>319 mg</td>
<td>2.2 mcg</td>
</tr>
<tr>
<td>Soy beverage</td>
<td>250 mL (1 cup)</td>
<td>6.7</td>
<td>316 mg</td>
<td>2.2 mcg</td>
</tr>
</tbody>
</table>

*Coconut milk should not be used regularly as a milk substitute due to its low protein and vitamin content, and high saturated fat content (6 grams saturated fat per 60 mL).

**Daily calcium recommendations (19-50yrs)** → **1000 mg**  
**Daily vitamin D recommendations (9-70yrs)** → **15 mcg (600 IU)**
Sugar is sugar is sugar...

- Glucose (dextrose), fructose and galactose
- Very little difference in digestion
- Blood vessels cannot tell the difference
- “Natural sugar” is not better
- Sugar, brown, cane and beet sugar, high fructose corn syrup, dextrose, fructose, glucose, maltose, sucrose, fruit juice concentrates, honey, molasses, maltodextrin, agave syrup, malt syrup, maple syrup and syrup
Turmeric

- Comes from the turmeric root, similar to ginger root
- Often used as a food colouring (curry, mustard)
- Used for thousands of years to treat various ailments in different cultures (e.g. Chinese medicine)
- Active ingredient: curcumin (polyphenol)
- Anti-inflammatory and antioxidant properties
- No regulated dosage – need more research!
- Not safe in pregnancy or during breastfeeding
- Caution: People with gallstones, bleeding disorders or taking diabetic medications
- Advice: use a variety of spices in your daily cooking to enhance flavour
The Ketogenic Diet

- High fat diet, with little to no carbohydrate intake
- Appropriate for specific populations (e.g. patients with epilepsy)
- Brain only uses glucose for energy
- Need 120 – 130 grams carbohydrates daily to function optimally (mood swings, frustration)
- Not sustainable and very restrictive – carbs are everywhere!
- Can be very dangerous in certain populations (e.g. patients with diabetes)
- Focus on low Glycemic Index (GI) carbohydrates rather than avoiding all carbs → fibre!
A lot of starchy foods have a high Glycemic Index (GI). Choose medium and low GI foods more often.

<table>
<thead>
<tr>
<th>LOW GI (55 or less) * †</th>
<th>MEDIUM GI (56-69) * †</th>
<th>HIGH GI (70 or more) * †</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BREADS:</strong></td>
<td><strong>BREADS:</strong></td>
<td><strong>BREADS:</strong></td>
</tr>
<tr>
<td>100% stone ground whole wheat</td>
<td>Whole wheat</td>
<td>White bread</td>
</tr>
<tr>
<td>Heavy mixed grain</td>
<td>Rye</td>
<td>Kaiser roll</td>
</tr>
<tr>
<td>Pumpernickel</td>
<td>Pita</td>
<td>Bagel, white</td>
</tr>
<tr>
<td><strong>CEREAL:</strong></td>
<td><strong>CEREAL:</strong></td>
<td><strong>CEREAL:</strong></td>
</tr>
<tr>
<td>All Bran™</td>
<td>Grapenuts™</td>
<td>Bran flakes</td>
</tr>
<tr>
<td>Bran Buds with Psyllium™</td>
<td>Puffed wheat</td>
<td>Corn flakes</td>
</tr>
<tr>
<td>Oat Bran™</td>
<td>Oatmeal</td>
<td>Rice Krispies™</td>
</tr>
<tr>
<td><strong>GRAINS:</strong></td>
<td><strong>GRAINS:</strong></td>
<td><strong>GRAINS:</strong></td>
</tr>
<tr>
<td>Barley</td>
<td>Basmati rice</td>
<td>Short-grain rice</td>
</tr>
<tr>
<td>Bulgar</td>
<td>Brown rice</td>
<td></td>
</tr>
<tr>
<td>Pasta/noodles</td>
<td>Couscous</td>
<td></td>
</tr>
<tr>
<td>Parboiled or converted rice</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>OTHER:</strong></td>
<td><strong>OTHER:</strong></td>
<td><strong>OTHER:</strong></td>
</tr>
<tr>
<td>Sweet potato</td>
<td>Potato, new/white</td>
<td>Potato, baking (Russet)</td>
</tr>
<tr>
<td>Yam</td>
<td>Sweet corn</td>
<td>French fries</td>
</tr>
<tr>
<td>Legumes</td>
<td>Popcorn</td>
<td>Pretzels</td>
</tr>
<tr>
<td>Lentils</td>
<td>Stoned Wheat Thins™</td>
<td>Rice cakes</td>
</tr>
<tr>
<td>Chickpeas</td>
<td>Ryvita™ (rye crisps)</td>
<td>Soda crackers</td>
</tr>
<tr>
<td>Kidney beans</td>
<td>Black bean soup</td>
<td></td>
</tr>
<tr>
<td>Split peas</td>
<td>Green pea soup</td>
<td></td>
</tr>
<tr>
<td>Soy beans</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baked beans</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*expressed as a percentage of the value for glucose
† Canadian values where available

Adapted with permission from: Foster-Powell K, Holt SHA, Brand-Miller JC. International table of glycemic index and glycemic load values Am J Clin Nutr. 2002;76:5-56
So – How do I know if it’s legit?

- Is the website promising a quick fix or a miracle cure?
- Do I have reasons to mistrust the person, organization or company that runs the website?
- Are they trying to sell me something instead of educate me on how to make better food choices?
- Are the website writers unqualified to be giving me nutrition information?
- Do they have facts that sound too good to be true?
- Does the information come from personal opinions rather than scientific evidence?
- Is the content missing reviews or verification by medical experts?
- Are the website claims based on a single study that may draw the wrong conclusion?
Thank you!
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References


Questions?
Supplementary Material: Avocados

- Canada’s Food Guide Serving = ½ fruit
- 11.7 grams unsaturated fats per serving
- 2.1 grams saturated fats per serving
- 6.7 grams fibre per serving
Supplementary Material: Colonics/Bowel Cleansing

- “Cleansing” the bowel
- Medicinal laxatives, herbal products, “detoxification diets”
- Little to no evidence
- May cause harm
- Not recommended
Supplementary Material: Eggs

- Cholesterol is contained in the yolk – 179mg
- 80% of cholesterol in body produced by organs
- 20% of cholesterol in body is affected by food
- Healthy person → one whole egg per day (300mg/day*)
- High cholesterol, diabetes or heart disease → two whole eggs per week (200mg/day*)

*Sources are conflicting; recommendation should be individualized.
Supplementary Material: Intermittent Fasting

- Lack of food intake for an extended period of time
- Long-term data unknown
- Nutrient dense, 25% calorie restriction = reduced blood pressure, fasting blood glucose, fasting insulin and C-reactive protein
- Many variations → 5:2, alternate day fasting, every third day, once/week, time-restricted eating
- Ramadan fasting led to lower blood pressure, blood glucose, cholesterol and triglycerides levels
Supplementary Material: Intermittent Fasting Con’t

- Animal research → Reduced the risk of diabetes and lowered blood pressure, cholesterol and triglyceride levels

- Human research is promising

- Not for everyone → headaches, fatigue, irritability

- Danger: growing children and teenagers, pregnant and nursing women, people with diabetes who take insulin or oral medications and individuals with hypoglycemia

- Must ensure calorie and nutrient intake are sufficient (need nutrient dense foods)

- Fasting should be monitored by a Registered Dietitian, with approval of MD
Supplementary Material: Prebiotics/Probiotics

- **Prebiotics** are basically food for probiotics

- **Probiotics** are good bacteria that make up a healthy digestive tract

- Different recommendations depending on condition (e.g. diarrhea, constipation, etc.)

- Probiotic App: The Clinical Guide to Probiotic Supplements

- Probiotic App Online Form: [http://www.probioticchart.ca/](http://www.probioticchart.ca/)