The UA Nutritional Sciences Department Faculty present

A Nutrition Roundtable: *All About Sugar*
Meet the Panel

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Assistant Professor of Practice

Vanessa da Silva, PhD, RDN
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Melanie Hingle, PhD, MPH, RDN
Assistant Professor
Meet the Moderator

Sheila Merrigan, MS, MA
Instructional Specialist Coordinator
Learning Objectives

1. Identify dietary sources of sugar
2. Describe nutrition recommendations for sugar consumption
3. Understand the relationship between sugar and health
4. Describe types of sugar and sugar alternatives
What foods and beverages are the primary sources of sugar in Americans’ diets?
Food Category Sources of Added Sugars in the U.S. Population Ages 2 Years and Older

Dietary Guidelines for Americans 2015
What does “added sugar” refer to?

http://www.fda.gov/Food/GuidanceRegulation/GuidanceDocumentsRegulatoryInformation/LabelingNutrition/ucm385663.htm
What does “added sugar” refer to?
What type of sugar is the best option? For example, raw, honey, cane sugar, beet sugar, etc.
How much sugar is okay for health?
Is sugar an “empty” calorie?
What about fruit sugar? (Fruit is healthy, isn’t it?)
Can healthy foods also be high in sugar?
“... in some circumstances, intermittent access to sugar can lead to behavior and neurochemical changes that resemble the effects of a substance of abuse.”


Can you become addicted to sugar?

What is the relationship between sugar-sweetened beverages and weight gain?
Pro v Con Debate: Role of sugar sweetened beverages in obesity

Will reducing sugar-sweetened beverage consumption reduce obesity? Evidence supporting conjecture is strong, but evidence when testing effect is weak

K. A. Kaiser¹, J. M. Shikany², K. D. Keating¹ and D. B. Allison¹

Figure 6 Comparison of weight gain attributed to consumption of SSBs for 1 year from various sources

**Observed:** gain from 175 kcal added per day for 12 months.

**Theoretical:** gain if no compensation occurred from 140 kcal added per day for 12 months.

**Purported:** possible gain from 140 kcal added per day for 12 months.

**Weight gain (pounds)**

<table>
<thead>
<tr>
<th>Source</th>
<th>Weight Gain (pounds)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adult women (Haub et al., 2005)</td>
<td>1.1</td>
</tr>
<tr>
<td>Average 30 year old man *</td>
<td>8.7</td>
</tr>
<tr>
<td>Average 30 year old woman *</td>
<td>8.8</td>
</tr>
<tr>
<td>NYC Dept of Health (2010) - internal communications +</td>
<td>15</td>
</tr>
<tr>
<td>NYC Dept of Health (2010) - ad campaign #</td>
<td>10</td>
</tr>
<tr>
<td>NYC Dept of Health (Sept 2012) - amendment of Article 81 $</td>
<td>15</td>
</tr>
</tbody>
</table>

*Note: *Theoretical and Purported values are based on assumptions and may not reflect actual weight gain.

**obesity** reviews (2013) **14**, 620–633
Are sugar substitutes good or bad for health?

**Table 1** Commonly consumed non-nutritive sweeteners: estimated consumption, ADI, and sweetness equivalence

<table>
<thead>
<tr>
<th>Sweetener</th>
<th>All consumers (mg/kg/day)</th>
<th>Highest consumers (mg/kg/day)</th>
<th>ADI (mg/kg/day)</th>
<th>Sweetness potency (multiple of sugar)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acesulfame-K</td>
<td>&lt;1</td>
<td>≤4</td>
<td>15</td>
<td>200</td>
</tr>
<tr>
<td>Aspartame</td>
<td>&lt;5</td>
<td>&lt;14</td>
<td>50</td>
<td>180</td>
</tr>
<tr>
<td>Saccharin</td>
<td>&lt;2</td>
<td>&lt;4</td>
<td>5</td>
<td>300</td>
</tr>
<tr>
<td>Sucralose</td>
<td>&lt;1</td>
<td>&lt;3</td>
<td>5</td>
<td>600</td>
</tr>
</tbody>
</table>

Abbreviation: ADI, acceptable daily intake.

*Data from Mattes & Popkin 2009, Renwick 2008, and Magnuson et al. 2007.*

Since diet sodas contain no sugar, can you drink as much as you want?

What is high fructose corn syrup?

Carbonated beverages are high in sugar – what about carbonated water – is this bad for your health also?
Questions and Comments