

Yogurt: Nutritious Food or Sugary Treat?



Angie Hasemann

While milk consumption continues to decline in the United States, the consumption of yogurt has steadily increased. As yogurt production grew to a six million dollar industry in 2011, experts are foreshadowing continued annual growth of 5-7% in upcoming years. With this rapid expansion, manufacturers have capitalized on consumers' desire to eat healthier, enjoy foods that taste good, and access convenient food items. Now there is a yogurt product to meet every need and taste bud of potential buyers. In the expansion of products offered, the nutrition quality of some yogurts have improved, while others have declined, so much so that they resemble desserts, while yet carrying a name that implies a health value to the consumer. Navigating the assortment of yogurt products in the grocery store is becoming more challenging, and the line between nutritious food and sugary treat has been blurred.

INTRODUCTION

The importance of consuming adequate calcium through daily intake of milk products has been a health focus of Americans for many years.¹ However, liquid milk consumption has declined in the United States in recent years.² This has been matched by an increase in the consumption of frozen, drinkable, and spoonable yogurt, which has caused a boom in yogurt production. Considering that overall dairy consumption has been below recommended daily intakes, the dairy industry has responded by an increase in development and marketing of other dairy products.^{3,4} Specifically, yogurt manufacturing has responded to consumer

demands, resulting in both healthier and more flavorful products emerging. No longer is yogurt the high fat dairy product it was decades ago. Not only have lower fat versions been developed, but now there are a variety of other nutrients being added to yogurt. Companies have responded to consumer concerns regarding healthier options and have developed products to meet the needs of convenience and flavor demanded by consumers today.² With this abundance of options, many consumers feel lost in the yogurt aisle of the grocery store.

What Happened to Yogurt?

Twenty years ago, there were not many options for yogurt. A quick glance down the dairy aisle in a grocery store shows just how much things have changed. Over

Angie Hasemann, RD, CSP Outpatient Pediatric Dietitian, Children's Fitness Clinic, University of Virginia Children's Hospital, Charlottesville, VA

time, the industry has grown significantly, and global sales are projected to reach \$494 billion by 2015. Included in this, retail sales of frozen, drinkable, and spoonable yogurt increased 7.5% to nearly \$6.4 billion in 2011 and are predicted to grow even further, at a rate of 5-7% per year through 2017. This growth is partly due to America's desire to eat healthier while not sacrificing flavor or convenience.² Yogurt manufacturers have risen to this challenge.

Healthier Enhancements

The first health-enhancing adjustment by the yogurt industry was the development of reduced fat, low fat, and eventually, fat-free versions. These changes helped to establish yogurt as a true "health food." With the addition of "live and active cultures," touted health benefits grew. The wide variety of probiotics currently found in yogurt are purported to rejuvenate gut flora and are being researched for a variety of potential health benefits, including lowering cholesterol and increasing brain cognition. Almost half of dairy producers are working on new products which are low fat or fat-free, have reduced amounts of sodium and sugar, are available in lactose-free versions, are organic, include probiotic cultures, and are fortified with nutrients, specifically calcium and protein. The appeal of the lower sugar and higher protein content of Greek yogurt has helped this section of the yogurt industry explode in recent years, now accounting for about one-third of all yogurt consumption.²

Flavor-Enhancing Changes

While the nutrient profile of yogurt has changed in recent years, so have the multitude of flavors available in the supermarket. Yoplait alone boasts 99 distinct flavors on its website.⁵ It is now possible to find flavors that sound more like luxurious desserts, kid-friendly treats, and unhealthy indulgences rather than the calcium-packed dairy product yogurt was once known to be.

What's in Your Yogurt?

Research shows that four brands rule the yogurt industry. Chobani currently offers 7 products online⁶ and recently was chosen as the supplier for the USDA Greek Yogurt Pilot Program, which will bring this product into schools across the nation as part of the national school lunch program.⁷ Dannon Activia promotes 8 products online, with a variety of options touting the live and active cultures for which Activia has become known.⁸

Stonyfield Farm is a leading organic yogurt supplier, with 9 different products.⁹ Yoplait has been a player in the industry for years and currently has 18 product types online. With so many options, the difference among products can be difficult to digest. Table 1 shows a simple breakdown of some of the basic yogurt products on the market. The variance in container size can be distracting to the consumer. Table 1 also contains an analysis of these same basic yogurt types, comparing each product's nutrients *per 8 oz. serving* for a fair comparison.

Dessert-Inspired Yogurt

With the demand to develop better tasting yogurts and the desire to find healthier sweets; dessert-inspired yogurts have overwhelmed the market. Companies now compare yogurt to tempting sweets in television advertisements, and food scientists have continued to work to develop yogurt options that will rival the desserts people crave. Manufacturers have marketed them as such. Table 2 reviews versions of dessert-inspired yogurt products. In comparison per 8 oz., the huge gap in nutrition is evident.

Kid-Friendly Yogurt

Yogurt is a food commonly consumed by children, offering the consistency that is safe for toddlers and the ease in packaging and on-the-go eating that parent's desire. Companies have done their research to appeal to this population. Table 3 shows the broad product development targeted directly at parents who are inclined to search healthy and convenient products their children will enjoy. These products are often offered in kid-friendly portions, varying in size from 2 oz. tubes to the typical 6 oz. adult serving. Table 4 shows the level of calcium available in these products.

While many parents consider these products to be a healthy option for their children, few recognize the high level of sugar in such products. While a plain yogurt would contain around 1.5 grams of sugar per ounce, Table 5 shows how these products include much more. In fact, all but two products have double the amount of sugar per ounce as plain yogurt.

Drinkable Yogurt

While efforts have been made to appeal to children, yogurt products have begun to compete with alternative beverages by marketing drinkable forms. Adults have

(continued on page 40)

Yogurt: Nutritious Food or Sugary Treat?

NUTRITION ISSUES IN GASTROENTEROLOGY, SERIES #126

(continued from page 38)

Table 1. Nutrition Information of Basic Yogurt Products*+

Product	Serving Size	Calories	Fat (g)	Sugar (g)	Protein (g)	Calcium (mg)	Vit. D (IU)
Chobani Fruit at the Bottom	5.3 oz.	120-150	0-3	18-21	11-12	150	<i>0</i>
	per 8 oz.	181-226	0-4.5	27-32	17-18	226	<i>0</i>
Chobani Blended	5.3 oz. (or 8 oz.)	130- <i>270</i>	0-5	9- <i>32</i>	13-19	180-300	<i>0</i>
	per 8 oz.	170- <i>270</i>	0-7	9-32	17-19	180-300	<i>0</i>
Dannon Activia	4 oz.	110-120	2	17-19	<i>4</i>	150	40-60
	per 8 oz.	220-240	4	34-38	8	300	80-120
Dannon Activia Light	4 oz.	60	0	6-7	<i>4</i>	150	<i>0</i>
	per 8 oz.	120	0	12-14	8	300	<i>0</i>
Dannon Activia Greek	4 oz.	130-140	0	17-20	12-13	150	<i>0</i>
	per 8 oz.	260- <i>280</i>	0	34- <i>40</i>	24-26	300	<i>0</i>
Dannon Oikos Traditional Greek	5.3 oz.	160	4.5	18-21	11	150	<i>0</i>
	per 8 oz.	242	8	27-32	17	230	<i>0</i>
Dannon Oikos Fat Free Greek	5.3 oz.	120-130	0	18-20	12	150	<i>0-60</i>
	per 8 oz.	181-196	0	27-30	18	230	<i>0-92</i>
Stonyfield Fruit on the Bottom	6 oz.	110-120	0-1.5	21-22	6	250	60
	per 8 oz.	147-160	0-2	28-29	8	330	80
Stonyfield Blends	6oz	150-160	0	26-28	8	300	60
	per 8 oz.	200-213	0	35-37	11	400	80
Stonyfield Greek	5.3 oz.	110-140	0	15-22	13	150-200	<i>0</i>
	per 8 oz.	166-211	0	23-33	20	230-300	<i>0</i>
Yoplait Original	6 oz.	170	1.5	26	5	200	80
	per 8 oz.	227	2	35	7	270	107
Yoplait Light	6 oz.	90-100	0	10-14	5	200	80
	per 8 oz.	120-133	0	13-19	7	270	107
Yoplait Greek	6 oz.	130-150	0-1	16-19	11	<i>100</i>	80
	per 8 oz.	173-200	0-2	21-25	15	<i>130</i>	107
Yoplait Greek 100	5.3oz	100	0	7-9	10-15	<i>100-200</i>	80
	per 8 oz.	151	0	11-14	15-23	150-300	120

* Best options are in **bold**; worst options are in *italics* and *highlighted in red*.

+ Shaded rows show nutrient facts per 8 oz. serving.

responded favorably to this convenience item, as it fits well with the on-the-go lifestyle of busy parents and adults. In recent years, the acid whey byproduct of Greek yogurt is being used to create these drinks, thereby making the production process of both products more efficient. Table 6 exhibits the variety of drinkable yogurt products currently on the market. Typical serving size can vary greatly by product and targeted audience. Comparison by 8 oz. serving is included in the shaded rows of this table.

How Do These Products Add Up?

Yogurt has long been revered for its calcium content; however, in an effort to better meet the evolving needs of consumers, the nutrient profile has changed. Nutrition content also varies greatly across the industry and no two products have identical nutrient content. Education for the public to simplify nutrient label reading is essential to help the busy shopper to understand what nutritional value is present in the yogurt product they grab off the shelf. Unfortunately, many assume they are all equal, which could not be further from the truth.

Back to Bones

While yogurt originally was known as a good source of calcium (defined as: 100-199 mg or 10-19%

DV/serving), many current products fall short of the calcium offered in other dairy products. While 8 oz. of milk and 1.5 oz. of most cheeses contain 300 mg of calcium, many yogurt products have far less. Table 1 shows multiple products which offer only 150-200mg of calcium per serving. In fact, only two of the basic yogurt products contain 300mg of calcium. Over half of the kid-friendly versions highlighted in Table 4 have only 100 mg of calcium and none reach the level present in a cup of milk. This is largely due to the smaller serving size of the products; however, it is a sign of inferior nutrition value when comparing a kid-friendly yogurt cup or tube to other snack choices. It is also a reminder that kid-friendly yogurt products are not dependable as a traditional excellent source of calcium (≥ 200 mg or 20% DV/serving) which yogurt was once thought to be. Although dessert-inspired yogurts often are served in the larger sizes, their calcium content often falls short as well. Some drinkable yogurts also lack the calcium of other dairy foods, although the amount of calcium can vary greatly by product.

How Sweet It Is

While dairy products have natural sugar present, flavored yogurts have greatly increased this amount. Some yogurt products have pushed the limits of sugar

Table 2. Nutrition Information of Dessert-Inspired Yogurt Products*+

Product	Serving Size	Calories	Fat (g)	Sugar (g)	Protein (g)	Calcium (mg)	Vit. D (IU)
Chobani Bite	3.5 oz.	100	1-2	12-13	8	<i>100</i>	<i>0</i>
	per 8 oz.	229	2-5	27-30	18	230	<i>0</i>
Chobani Flip	5.3 oz.	130- <i>230</i>	1.5- <i>10</i>	12-22	10- 13	150-200	<i>0</i>
	per 8 oz.	196- <i>347</i>	2- <i>15</i>	18-33	15- 20	230-300	<i>0</i>
Stonyfield Smooth & Creamy	4 oz. (or 6 oz. or 32oz.)	80-100	0-1.5	11-17	<i>5-8</i>	150-250	60- 80
	per 8 oz.	160-200	0-9	12-35	<i>9-10</i>	300- 350	100
Yoplait Thick and Creamy	6 oz.	180	2.5	<i>28</i>	7	300	80
	per 8 oz.	240	3	37	<i>9</i>	400	107
Yoplait Whips	4 oz.	140-160	2.5- <i>4</i>	21-22	<i>5</i>	<i>100-150</i>	40
	per 8 oz.	280-320	5-8	42- <i>44</i>	10	<i>200-300</i>	80

* Best options are in **bold**; worst options are in *italics* and *highlighted in red*.

+ Shaded rows show nutrient facts per 8 oz. serving.

Table 3. Nutrition Content of Kid-Friendly Yogurt Products

Product	Serving Size	Calories	Fat (g)	Sugar (g)	Protein (g)	Calcium (mg)	Vit. D (IU)
Chobani Champions	3.5 oz.	100-120	1.5-3	13-14	8	100	20
Chobani Tubes	2.25 oz.	70	1	8	5	<i>60</i>	<i>10-15</i>
Stonyfield Yo Baby Original	4 oz.	80-100	4-4.5	6-13	4	250	15- 25
Stonyfield Yo Baby Drinkables	6 oz.	180- <i>190</i>	7	<i>22-24</i>	6	400	25
Stonyfield Yo Kids	6 oz.	80	1	13	4	150	25
Stonyfield Yo Kids Squeezers	2 oz.	60	1	9	2	80-100	<i>10</i>
Stonyfield Yo Kids sMOOthies	3.1 oz.	70-80	1	13	3	100	<i>10</i>
Yoplait Go-Gurt	2.25 oz.	60	0.5	9	2	100	<i>10</i>
Yoplait Go-Gurt Protein	2.25 oz.	60	0	8	5	150	<i>10</i>
Yoplait Trix Yogurt	4 oz.	100	0.5	14	3	100	<i>10</i>
Yoplait Kids	3 oz.	70	1	9	3	200	20

* Best options are in bold; worst options are in *italics* and *highlighted in red*.

content, while not always maintaining the benefits of calcium seen in rival products. While sugar content per 8 oz. serving can be as low as 9-12 g, you'll find numerous products that feature 30g of sugar or more per 8 oz. serving. In fact, half of the products featured in Table 1 have flavors that contain 30g of sugar or more per 8 oz. serving. In looking at the dessert-inspired yogurt products, most have well over 30g sugar per 8 oz. serving, and the kid-friendly products are not much better. Utilizing unflavored yogurt and adding natural sugar via fresh or fresh frozen fruit may be the healthiest option available to consumers.

On the Horizon

In the vastly expanding yogurt industry, many current trends are on the horizon. Experts predict greater industry consolidation, limiting the number of production companies but likely increasing the specialty products available from the four largest yogurt companies (Chobani, Dannon, Stonyfield Farm, and Yoplait), as well as more large scale dairy farms to meet the growing needs of a population that is turning to yogurt as an on-the-go "healthy snack" or even a dessert substitute. With the expected increase in consumption of dairy

(continued on page 44)

(continued from page 42)

Table 4. Calcium Content of Kid-Friendly Yogurt Products per Container

Low Calcium Source <100mg, 10% DV)	Good Calcium Source (100-200mg, 10-19% DV)	Excellent Calcium Source (>200mg, 20% DV)
<ul style="list-style-type: none"> • Chobani Tubes 	<ul style="list-style-type: none"> • Chobani Champions • Stonyfield Yo Kids • Stonyfield Yo Kids Squeezers • Stonyfield Yo Kids sMOOthies • Yoplait Go-Gurt • Yoplait Go-Gurt Protein • Yoplait Trix Yogurt 	<ul style="list-style-type: none"> • Stonyfield Yo Baby Original • Stonyfield Yo Baby Drinkables • Yoplait Kids

Table 5. Sugar Content of Kid-Friendly Yogurt Products per Container

Product	Sugar Content (per 8 oz. serving)
Plain yogurt	~12 g
Stonyfield Yo Kids	17.3 g
Yoplait Kids	24 g
Stonyfield Yo Baby Original	12-26 g
Chobani Tubes	28.4 g
Yoplait Trix Yogurt	28 g
Yoplait Go-Gurt Protein	28.4 g
Stonyfield Yo Baby Drinkables	29.3-32 g
Chobani Champions	29.7-32 g
Yoplait Go-Gurt	32 g
Stonyfield Yo Kids sMOOthies	33.6 g
Stonyfield Yo Kids Squeezers	36 g

products, specifically yogurt, the industry is turning to more sustainable packaging. Creating efficiencies in the production process will likely establish packaging that better meets the needs and peaks the interests of consumers. This ongoing variance in serving size will require greater attention to the details on the packaging. With a demand for more lactose-free products, more alternative products will be developed, and more liquid versions of yogurt will likely be created in an effort to rival other drink competitors. Retailers and consumers alike are always looking for new flavors, innovative packaging, and novel products. Utilizing probiotic cultures, applying sustainable materials to extend shelf life, and fortification through added nutrients are also trends that will be present on the grocery store shelf in the coming years.²

SUMMARY

Yogurt varieties have drastically changed in the past decade and will likely continue to evolve. As manufacturers look for innovative ways to meet the needs of consumers’ palates and busy schedules, healthcare providers will need to use the same innovation and show equal dedication to educating consumers. As with all aspects of nutrition, the quality and health value of yogurt may not be visible from the front of the packaging and likely requires some investigation through careful evaluation of the nutrition facts label.

(continued on page 46)

(continued from page 44)

Table 6. Nutrition Information of Drinkable Yogurt

Product	Serving Size	Calories	Fat (g)	Sugar (g)	Protein (g)	Calcium (mg)	Vit. D (IU)
Dannon Activia Drinks	7 oz.	160-170	3	25-26	6	200	0
	per 8 oz.	183-194	3.4	29-30	6.9	229	0
Stonyfield Smoothies	10 oz. (or 6 oz.)	230- <i>240</i>	3	<i>37-40</i>	10	400	100
	per 8 oz.	184-192	2.4	30-32	8	320	80
Stonyfield Yo Baby Drinkables	6 oz.	180-190	<i>7</i>	22-24	6	400	100
	per 8 oz.	240- <i>253</i>	<i>9.3</i>	29-32	8	533	133
Stonyfield Yo Kids smOOthies	3.1 oz.	70-80	1	13	3	100	40
	per 8 oz.	181-206	2.6	<i>34</i>	7.7	258	103
Yoplait Smoothies	3.8 oz.	70-110	1-1.5	8-14	<i>1-5</i>	60-500	0
	per 8 oz.	<i>147-231</i>	2.1-3.2	17-30	2.1-10.5	126-1052	0

* Best options are in **bold**; worst options are in *italics* and *highlighted in red*.

+ Shaded rows show nutrient facts per 8 oz. serving.

With the wide variety of yogurt products available, educating the public regarding the differences is vital in order to allow the consumer to determine the difference between a “Nutritious Food or Sugary Treat.” ■

References

- International Dairy Foods Association. Dairy Facts 2011 Edition. Washington, DC: International Dairy Foods Association, November 2011.
- The Association of Packaging and Processing Technologies. Dairy Industry Market Assessment, 2013. <http://www.pmmi.org/Research/content.cfm?ItemNumber=9925>. Accessed 10/05/13.
- Krebs-Smith SM, Guenther PM, Subar AF, et al. Americans do not meet federal dietary recommendations. *J. Nutr.* 2010;140:1832-1838.
- U.S. Department of Agriculture, Agricultural Research Service, Beltsville Human Nutrition Research Center, Food Surveys Research Group. Fluid Milk Consumption in the United States: What We Eat in America, NHANES 2005-2006. Food Surveys Research Group Dietary Data Brief No. 3, October 2010. <http://ars.usda.gov/Services/docs.htm?docid=19476>. Accessed October 1, 2013.
- Yoplait. Explore Yoplait Flavors from A to Z. <http://www.yoplait.com/flavorsatoz>. Accessed October 1, 2013.
- Chobani. Products. <http://chobani.com/products/>, Accessed October 1, 2013.
- Warren, J. Chobani Yogurt may land sweet school deal with \$11 billion federal lunch program. *NY Daily News*, July 2013. <http://www.nydailynews.com/news/national/chobani-yogurt-land-spot-11b-federal-lunches-article-1.1404907>. Accessed October 1, 2013.
- Dannon Activia. What’s Your Activia? <http://activia.us.com/probiotic-yogurt>. Accessed October 1, 2013.
- Stonyfield. Products. <http://www.stonyfield.com/products>, Accessed October 1, 2013.