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Re: "Iodine Content in Milk Alternatives" by Ma *et al*. (*Thyroid* 2016;26:1308–1310)

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Dear Editor

We applaud the timely article by Ma *et al*. describing the iodine content (IC) in some nondairy milk alternatives (1). This letter provides data from work in our laboratory, offering readers additional information regarding the IC in non-dairy milk alternatives.

We evaluated the IC in 35 random types/brands of non-dairy substitutes (2). Samples were analyzed using inductively coupled plasma mass spectrometry after digestion with tetramethylammonium hydroxide. The accuracy of all results was verified using National Institute of Standards and Technology (NIST) Standard Reference Material 1549a and NIST traceable iodine standards. A comparison of our results with those presented by Ma *et al*. is shown in Table 1. Our nondairy substitutes had an IC that ranged from 0.4 to 104 μg/L. In our study, the highest IC was found in a soymilk product with seaweed as an additive. While this product had an IC of 104 μg/L, the base of this product is soy, which is a known goitrogen shown to inhibit iodine uptake in the thyroid (3). The second highest IC was found in a rice milk product with sea algae added. Seaweed and algae are both potential sources of iodine. The iodine content in dairy substitutes, not unlike dairy products, is most likely caused by the processing and naturally occurring iodine content of the additives (such as seaweed). Ma *et al*. suggest adding iodine to nondairy milk substitutes to ensure that the U.S. population maintains adequate iodine nutrition. The IC in a nondairy substitute that is derived from a goitrogenic material such as soy may not have the same effect as adding iodine to a product that is derived from a non-goitrogenic base (such as rice milk). We believe further work is needed to examine the relationship between iodine nutrition and how common goitrogens found in some nondairy substitutes affect the availability of iodine and thyroid function in the U.S. population.

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The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention. Use of trade names and commercial sources is for identification only and does not constitute endorsement by the U.S. Department of Health and Human Services or the Centers for Disease Control and Prevention.

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Table 1

Iodine Content in Milk Alternatives

Type of milk	Brand	μg/L	Iodine content (μg/250 mL)	Iodine content reported by Ma *et al*. (μg/250 mL)
Almond milk	A	8.0	2.0	
Almond milk	B	3.0	0.8	0.5
Almond milk	C	6.8	1.7	6.9
Almond milk	D	6.1	1.5	
Almond milk	E	7.3	1.8	
Almond milk	F	4.2	1.1	0.8
Blend	A	26.6	6.7	
Blend	B	41.5	10.4	
Cashew milk	A	5.4	1.4	1.4
Cashew milk	B	4.7	1.2	
Coconut milk	A	5.1	1.3	
Coconut milk	B	4.3	1.1	0.8
Coconut milk	C	50.6	12.7	
Flax milk	A	3.1	0.8	
Hazelnut milk	A	15.0	3.7	
Hazelnut milk	B	3.2	0.8	
Hemp milk	A	3.3	0.8	1.8
Hemp milk	B	8.0	2.0	
Macadamia milk	A	1.7	0.4	
Macadamia milk	B	5.9	1.5	
Oat milk	A	0.9	0.2	
Oat milk	B	0.4	0.1	
Quinoa milk	A	7.6	1.9	
Quinoa milk	B	0.9	0.2	
Rice milk	A	11.7	2.9	
Rice milk	B	2.3	0.6	
Rice milk	C	53.1	13.3	
Rice milk	D	4.3	1.1	5.2
Rice milk	E	4.4	1.1	
Soymilk	A	3.0	0.7	
Soymilk	B	7.3	1.8	
Soymilk	C	104.6	26.2	
Soymilk	D	2.9	0.7	2.4
Soymilk	E	1.5	0.4	
Soymilk	F	6.7	1.7	3.0