

## Consequences of Removing Dairy Foods from the Diets of Adults Over 50 Years Old

The dairy group (milk, cheese and yogurt) is a top contributor of many essential nutrients in the diet of adults over the age of 50 years.<sup>1</sup>

### Calcium

- Calcium is a nutrient of public health concern according to the 2010 Dietary Guidelines for Americans.<sup>2</sup>
- Adults aged 51 years and older consume 825 mg of calcium daily on average. If dairy was removed from the diet, average intake would decrease by half to only 413 mg of calcium per day.
- Consequently, the number of 51+ year olds who would fall well below the recommended intakes for calcium would increase substantially.

### Potassium

- Many adults 50 years and older are consuming less than the recommended intakes for potassium,<sup>3</sup> a nutrient of public health concern according to the 2010 Dietary Guidelines for Americans.<sup>2</sup>
- Removing dairy from the diet of adults aged 51 years and older would decrease potassium intake by about 15% from 2,659 mg to 2,251 mg daily.
- This would result in an even greater number of adults falling well below the recommended intake for potassium.

### Phosphorus

- Most adults over 50 years old are meeting the recommended intakes for phosphorus.<sup>4</sup>
- Among adults aged 51 years and older, a 28% decrease in phosphorus intake would result from removing dairy from the diet.
- Intakes would fall to 879 mg from current average intake of 1,215 mg per day with dairy.

### Protein

- Most men ages 50 years and older are meeting the recommended 0.66 g per kg body weight per day for protein.<sup>3</sup>
- Seven percent of women 51-70 years old and 11% of women over 70 years old are not meeting the recommended 0.66 g per kg body weight per day for protein.<sup>3</sup>
- Eliminating dairy would negatively impact adult protein intake among those aged 51 years and older. They would consume about 17% less than they would with dairy (75 g per day with dairy, 62 g without).

### Vitamin A

- More than half of men over 50 years old do not consume the recommended vitamin A (625 retinol activity equivalents per day).<sup>3</sup>
- About four out of ten women over 50 years old do not consume the recommended amount of vitamin A (500 retinol activity equivalents per day).<sup>3</sup>

- Adults aged 51 years and older currently consume about 631 retinol activity equivalents per day. Removing dairy foods would cause a 25% drop leaving only 471 retinol activity equivalents in their diets.

### **Vitamin D**

- Vitamin D is a nutrient of public health concern according to the 2010 Dietary Guidelines for Americans.<sup>2</sup>
- Dairy is by far the largest contributor of vitamin D in the diet of older adults over 50 years, supplying about half of their vitamin D intake.
- The average daily intake for total dietary vitamin D for this group is about 4.6 µg. Removing dairy from the diet would cause a 53% average decrease of vitamin D to only 2.1 µg per day and make meeting recommended intakes even more challenging.

### **Vitamin B<sub>12</sub>**

- While vitamin B<sub>12</sub> fortified foods and supplements are encouraged for adults over age 50,<sup>2</sup> naturally occurring food sources of this vitamin are also important to help this population group meet their needs.
- Vitamin B<sub>12</sub> intake would decrease by about 27% if the dairy group was not included in their diet. On average, adults aged 51 years and older get about 5.1 µg daily and that would drop to only 3.7 µg without compensation from other foods.

### **Riboflavin**

- Most adults over age 50 are meeting the recommended intakes for riboflavin.<sup>3</sup>
- Adults aged 51 years and older get 2.2 mg of riboflavin from their diets on average; 0.4 mg is supplied by dairy. Dairy food elimination would decrease their riboflavin intake by 24%.

### **Magnesium**

- About 60% of men and women over 50 years old are not meeting their recommended magnesium intakes.<sup>4</sup>
- A 12% drop in magnesium would occur if dairy were removed from their diet. With dairy, adults aged 51 years and older get about 275 mg of magnesium per day but if dairy were removed from the diet they would only get 242 mg per day.

### **Zinc**

- About 20% of individuals 51-70 years old are falling short of recommended zinc intake.<sup>3</sup>
- Similarly, about one-third of adults over 70 years old are also not meeting recommended zinc intake.<sup>3</sup>
- Eliminating dairy products would decrease average daily zinc intake significantly by 14%. Adults aged 51 years and older would only get 9.6 mg in their diet as opposed to 11.2 mg with dairy.

### **Fat**

- It is recommended that adults get 20-35% of their total calories from fat.<sup>2</sup>
- The average fat intake for adults ages 51 years and older is 74 g which means 35% of their average calories (1900 total calories) are coming from fat.
- Removing dairy products from the diet of adults over the age of 50 would not impact the percentage of fat in the diet.
- Caloric fat contribution would remain 35% (592 calories from fat out of 1714 total calories).

Values include dairy in food mixtures (e.g. pizza, smoothies).

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1. Dairy Research Institute™. NHANES (2003-2006). Data Source: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health and Nutrition Examination Survey Data. Hyattsville, MD: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, [2003-2004; 2005-2006]. [<http://www.cdc.gov/nchs/nhanes.htm>]
2. U.S. Department of Health and Human Services and U.S. Department of Agriculture. Dietary Guidelines for Americans, 2010. 7th Edition, Washington, DC: U.S Government Printing Office, December 2010.
3. Moshfegh, Alanna; Goldman, Joseph; and Cleveland, Linda. 2005. *What We Eat in America*, NHANES 2001-2002: Usual Nutrient Intakes from Food and Water Compared to Dietary Reference Intakes. U.S. Department of Agriculture, Agricultural Research Service.
4. Moshfegh, Alanna; Goldman, Joseph; Ahuja, Jaspreet; Rhodes, Donna; and LaComb, Randy. 2009. *What We Eat in America*, NHANES 2005-2006: Usual Nutrient Intakes from Food and Water Compared to 1997 Dietary Reference Intakes for Vitamin D, Calcium, Phosphorus, and Magnesium. U.S. Department of Agriculture, Agricultural Research Service.

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