

Letters to the Editor

Banning front-of-package food labels

Response to Lytton

Madam,

In his thoughtful paper about front-of-package food labels, Timothy Lytton states that a ban on such labels would violate First Amendment provisions of the US Constitution. Lytton cites case law to argue that lower courts have consistently interpreted the First Amendment as providing guarantees of free commercial speech.

Indeed they have, and in 2003, the Bush Administration Food and Drug Administration (FDA) stopped defending against misleading health claims cases on First Amendment grounds.

We are not lawyers and make no pretense of arguing case law. However, it seems obvious to us that this interpretation of the First Amendment neither follows its original intent, nor promotes the public interest. The founding fathers clearly intended the First Amendment to guarantee the right of individuals to speak freely about religious and political matters, not the right of food companies to market junk foods to children and adults.

Laws are subject to reinterpretation and change, as the history of civil rights legislation makes clear. That politics influences interpretation of the law at the highest level is evident from the US Supreme Court's decisions in *Bush v. Gore* (2000) and *Citizens United v. Federal Election Commission* (2010).

We think the time has come for major legal challenges to the right of corporations to mislead the public on the grounds of free speech. The front-of-package health claims controversy demands immediate attention. We hope that legal scholars will examine current food marketing practices in the light of the First Amendment and establish a firm legal basis for bringing this issue back to court. Lytton's arguments make the need for such reconsideration perfectly evident.

Marion Nestle

Department of Nutrition Food Studies and Public Health
New York University, NY 10012, USA

David S Ludwig

Optimal Weight for Life Program
Department of Medicine, Children's Hospital
Boston, MA 02115, USA
doi:10.1017/S1368980010002855

Vitamin D content of meat

Are all steaks created equal?

Madam

In a recent analysis of plasma concentrations of 25-hydroxyvitamin D (25(OH)D) in meat eaters, fish eaters,

vegetarians and vegans⁽¹⁾, the authors reported that the magnitude of difference of 2.4 µg/d in calculated dietary vitamin D intake between meat eaters (3.1 µg/d) and vegans (0.7 µg/d) and the overall difference in the plasma concentration of 25(OH)D of 21 nmol/l were surprising. One could even conclude that eating meat accounts for more than 25% of the total circulating pro-hormone in this cohort, although meat eaters may also consume other good sources (fish, dairy and eggs) of vitamin D. The difference was considerably larger (by a factor of four to eight) than could be predicted by vitamin D intervention studies which relate intake of vitamin D to plasma levels of the pro-hormone. Vitamin D intake was calculated from the amount of food and the nutrient content from food composition tables. The findings are of considerable interest as meat eaters had a higher BMI than vegans and less vigorous exercise but equal summer outdoor activity, excluding cutaneous biosynthesis of vitamin D₃ via UV-B as a major factor for the difference. Furthermore, the data suggested that more meat consumption is accompanied by higher 25(OH)D levels. Considering the current debate about the relationship between vitamin D status and health, the results are new, perhaps provocative and need confirmation.

One possible explanation, in addition to other factors such as calcium intake or supplements considered by the authors, is that the calculated vitamin D content from food tables⁽²⁾ does not reflect the true intake, as many data are from specimens analysed decades ago. A survey of the more recent literature on vitamin D content of animal feeds is interesting in this context. The poultry and cattle industries appear to have optimized their feeds with respect to vitamin D. For example, chicken feed is recommended to contain between 35 and 70 µg vitamin D₃/kg to optimize egg production and other parameters for health⁽³⁾. Although the vitamin D content of the optimized hen eggs⁽⁴⁾ is reported, I could not find any recent data on meat from these chickens. A special case is beef. Because of a long standing interest of the meat industry in the tenderness of beef⁽⁵⁾, vitamin D₃ and more recently 25(OH)D₃^(6,7) have been investigated as treatments for cattle before slaughter. The hypothesis behind these supplementations is that by increasing the calcium content in muscles post mortem, myofibril proteolysis could be faster. Although one does not know for sure if as a consequence of these experiments (which suggested some but variable success with respect to tenderness) such regimens are currently implemented by the cattle industry, they offer insight into levels of vitamin D₃ and 25(OH)D₃ in tissues (muscle and liver) and serum of control (not supplemented) animals. The vitamin D₃