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# **Iodine-deficient vegetarians: a hypothetical perchlorate-susceptible population?**

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Recent risk assessments of environmental perchlorate have been subject to much debate. A particular concern is whether appropriate susceptible sub-populations have been identified. Iodine-deficient pregnant women, especially vegetarians, have been proposed as such a potential susceptible sub-population, but there is no evidence of iodine deficiency in the US population and the adequacy of iodine nutrition has not been studied in US vegetarians. To understand the possibility that US vegetarians might be iodine deficient, we reviewed the prevalence, demography, and lifestyle characteristics of US vegetarians as well as the world literature on iodine nutrition in vegetarians. Our findings indicate that strict vegetarians and vegans, who comprise probably less than 0.1% of the US population, have higher education, higher incomes, and healthier lifestyles than the general population. Field studies indicate that vegetarian diets need not lead to iodine deficiency and vegans may suffer excess iodine intake. It remains uncertain whether there are iodine-deficient vegans or pregnant women in the US. Of more general concern is whether the 10-fold default uncertainty factor is needed for intraspecies (i.e., within human) variability to protect such hypothetical susceptible sub-populations.

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