

Table 5. Effects of food and nutrients on the absorption of MeHg.

Food/nutrient	MeHg exposure	Nutrient dose	Animal model	Duration of experiment	Effects	Ref.
Protective effects Dried algae (phosphorus)	Hg from algae grown on wastewater	Phosphorous in algae	Chicken	NA	Decreased absorption of Hg	(155)
Enhanced toxicity Fish meal	Hg in polluted fish meal 1.4 g Hg/kg diet vs with commercial fish meal 0.3 g Hg/kg diet	Experimental fish diet vs commercial fish diet	Rat	12 d	Absorption of Hg was greater from the experimental fish meal diet	(96)
Vitamin C	8 mg MeHg/kg bw/d, orally	Ascorbic acid	Guinea pigs	5 d	Increased absorption of organic Hg	(150)
Other effects Corn silage	Hg from corn grown in industrial area 0.2 g Hg/kg diet	Corn silage vs casein diet	Rat	12 d	No effect on absorption of Hg	(96)
Diet (with sludge from sewage plant)	Hg from sludge 5.5 g/kg diet	Sludge diet vs casein control diet	Rat	12 d	No effect on absorption of Hg; ingested amount of Hg from sludge diet was higher	(96)
Phytate, fish meal diet	1.4 g Hg from fish meal/kg diet	Phytate 2 g/kg experimental fish meal diet compared with experimental fish meal diet	Rat	12 d	No reduction in the absorption of Hg	(96)
Selenium	Hg in hen liver (hens fed 15–30 ppm MeHgCl in diet)	Se in hen liver (hen fed 0.6 ppm selenite in diet)	Japanese quail	NA	No effect on the availability of Hg; Hg was highly available	(156)
Selenium	0–1.0 mM MeHgCl, intraduodenal dose, 0.05 mL	Selenite, intraduodenal dose 0.01 mM, 0.05 mL	Leghorn cockerel	3 wk	No interaction between Se and Hg; Hg level is manifold excess of Se, suggests effect not of great nutritional importance	(98)
Selenium	0.5 μmol MeHgCl in 0.2 mL s.c. injection or 1.25–5 μmol, injected by gastric gavage, 5 mL/kg bw	0.5 μmol selenite alone or in combination	Rat	48 hr	No delay in absorption of MeHg by simultaneous selenite administration	(157)