

Molybdenum

Molybdenum is a cofactor of aldehyde oxidases which are involved in purine and pyrimidine detoxification. Xanthine oxidase is responsible for metabolism of uric acid. Molybdenum may also have a role in stabilizing the unoccupied glucocorticoid receptor.

Deficiencies

No cases of human molybdenum deficiency have been reported.

Toxicity

No cases of human molybdenum toxicity have been reported.

- ❖ *The upper limit of safety for molybdenum established by the Food and Nutrition Board of the Institute of Medicine is approximately 2,000 mcg daily for adults. See table below for more age- and gender specific guidelines.*

Molybdenum Tolerable Upper Intake Levels	
Life Stage	Molybdenum (mcg/day)
Infants	
0-6 mo	N/A
7-12 mo	N/A
Children	
1-3 y	300
4-8 y	600
Males, Females	
9-13 y	1100
14-18 y	1700
19-70 y	2000
≥70 y	2000
Pregnancy	
<18 y	1700
19-50 y	2000
Lactation	
<18 y	1700
19-50 y	2000

Dietary Requirements

The Daily Reference Intakes (DRI) for molybdenum are shown in the table below.

Molybdenum Requirements	
Daily Reference Intakes	
Life Stage	Molybdenum mcg
Infants	
0-6 mo	2
7-12 mo	3
Children	
1-3 y	17
4-8 y	22
Males	
9-13 y	34
14-18 y	43
19-30 y	45
31-50 y	45
51-70 y	45
≥70 y	45
Females	
9-13 y	34
14-18 y	49
19-30 y	45
31-50 y	45
51-70 y	45
≥70 y	45
Pregnancy	
≤18 y	50
19-30 y	50
31-50 y	50
Lactation	
≤18 y	50
19-30 y	50
31-50 y	50

Dietary Sources

Milk, dried beans, peas, nuts and seeds, eggs, liver tomatoes, carrots and meats are good sources of molybdenum. See table below for detailed listing.

Molybdenum Content of Food	
Food	Molybdenum mcg
Navy beans, 1/2 cup ckd	98
Black-eye peas, 1/2 cup ckd	90
Lentils, 1/2 cup ckd	74
Split peas, 1/2 cup ckd	74
Lima beans, 1/2 cup ckd	71
Kidney beans, 1/2 cup ckd	66
Black beans, 1/2 cup ckd	65
Almonds, 1/4 cup	11.6
Peanuts, 1/4 cup	10.6
Chestnuts, 1/4 cup	10.6
Cashews, 1/4 cup	9.5
Yogurt, 1 cup	11.3
Egg, 1, cooked	9.0
Veal liver, 3.5 oz	8.9
Green soybeans, 1/2 cup	6.4
Cottage cheese, 1/2 cup	5.2
Milk, 1 cup	4.9
Tomatoes, fresh, 1/2 cup	4.5