

## Vitamin A: General information, upper levels for all age groups, RDAs for all age groups and table of rich food sources

<b>Vitamin A</b>	
<b>Functions</b>	Vision Skin integrity Immune function Red blood cell production (oxygen transport)
<b>Sources</b>	Yellow, orange + green veg
<b>Risk factors for deficiency</b>	
<b>Deficiency signs</b>	Poor ability of eyes to adapt to dark, night blindness
<b>When supplements useful?</b>	In cases of iron-deficiency anaemia
<b>Adverse effects</b>	Vitamin A toxicity can occur with preformed vit A (labelled vit A acetate/palmitate), not carotenoids. It is rare - can happen due to high doses (10 times RDA) over a short time or lower doses over a long time. Signs are nausea, fatigue, headache, joint pain.
<b>UL</b>	There are upper levels (See table)
<b>Contraindications</b>	Pregnancy - avoid supplements with vitamin A (beta-carotene is ok), due to risk of birth defects.
<b>Other</b>	Vit A deficiency makes iron deficiency worse. Supplementation with iron and vit A is beneficial for anaemia.



RDA	
Life Stage Group	Vitamin A (µg/d)
<b>Infants</b>	
0-6 mo	400*
7-12 mo	500*
<b>Children</b>	
1-3 y	300
4-8 y	400
<b>Males</b>	
9-13 y	600
14-18 y	900
19-30 y	900
31-50 y	900
51-70 y	900
>70 y	900
<b>Females</b>	
9-13 y	600
14-18 y	700
19-30 y	700
31-50 y	700
51-70 y	700
>70 y	700
<b>Pregnancy</b>	
14-18 y	750
19-50 y	770
<b>Lactation</b>	
14-18 y	1,200
19-50 y	1,300

Tolerable Upper Level (UL)		
Life Stage Group	Vitamin A (µg /d)	
	IOM	EFSA
<b>Reference</b>		
<b>Infants</b>		
0-6 mo	600	ND
7-12 mo	600	ND
<b>Children</b>		
1-3 y	600	800
4-8 y	900	1100
<b>Males</b>		
9-13 y	1,700	1500
14-18 y	2,800	2000-2600
19-30 y	3,000	3000
31-50 y	3,000	3000
51-70 y	3,000	3000
>70 y	3,000	3000
<b>Females</b>		
9-13 y	1,700	1500
14-18 y	2,800	2000-2600
19-30 y	3,000	3000
31-50 y	3,000	3000
51-70 y	3,000	3000
>70 y	3,000	3000
<b>Pregnancy</b>		
14-18 y	2,800	3000
19-50 y	3,000	3000
<b>Lactation</b>		
14-18 y	2,800	3000
19-50 y	3,000	3000

Food	Serving	Vitamin A, µg
Cod liver oil	1 teaspoon	1,350
Fortified breakfast cereals	1 serving	150-230
Egg	1 large	91
Butter	1 tablespoon	97
Whole milk	1 cup (8 fl oz.)	68
Sweet potato, baked	1/2 cup	961
Carrot (raw)	1/2 cup, chopped	538
Cantaloupe	1/2 medium melon	467
Mango	1 fruit	79
Spinach	1/2 cup, cooked	472
Broccoli	1/2 cup, cooked	60
Kale	1/2 cup, cooked	443
Collards	1/2 cup, cooked	386
Squash, butternut	1/2 cup, cooked	572