Guidelines for Micronutrient Supplementation

The groups most vulnerable to micronutrient deficiencies—pregnant women, lactating women, and young children—need relatively more vitamins and minerals and are more vulnerable than the general population to the harmful consequences of deficiencies.

Group	Conditions	Dosage	Frequency	Duration
Vitamin A				
Pregnant women	To prevent night blindness in areas with a prevalence of ≥ 5% in pregnant women or if > 20% of pregnant women have a serum retinol level < 0.70 mol/L.; not recommended as part of routine antenatal care to prevent maternal and infant illness and death	Up to 10,000 IU OR Up to 25,000 IU	Daily OR Weekly	At least 12 weeks during pregnancy until delivery
Children 6–11 months of age (including HIV-positive children)	Where the prevalence of night blindness is ≥ 1% or the prevalence of vitamin A deficiency (serum retinol 0.70 µmol/l or lower) is ≥ 20% in children 6–59 months of age	100,000 IU (30 mg retinol equivalent)	Once	
Children 12–59 months of age (including HIV-positive children)		200,000 IU (60 mg retinol equivalent)	Every 4–6 months	
Infants with measles < 6 months of age	In areas of known vitamin A deficiency or where measles case fatality is likely to be > 1%, to help prevent eye damage and blindness	50,000 IU	2 doses, 24 hours apart; if clinical signs of vitamin A deficiency such as Bitot's spots, a third dose 4–6 weeks later	
Children with measles 6–11 months of age		100,000 IU		
Children with measles ≥ 12 months of age		200,000 IU		
Calcium				
Pregnant women	Where dietary calcium intake is low and for women at high risk of developing hypertensive disorders during pregnancy	1.5–2.0 g of elemental calcium	Total dose divided into three doses, preferably taken at mealtimes	Throughout pregnancy
Iodine				
Pregnant and lactating women	Where < 20% of households have access to iodized salt, until salt iodization is scaled up	250 µg	Daily	
		400 mg	Yearly	
Women of reproductive age (15–49 years of age)		150 µg	Daily	
		400 mg	Yearly	
Children 7–24 months of age	Where complementary food fortified with iodine is not available	90 µg OR 200 mg	Daily OR Yearly	

Group	Conditions	Dosage	Frequency	Duration
Iron and folic acid				
Menstruating adolescent girls and women	Where the prevalence of anemia among non-pregnant women of reproductive age is ≥ 20%	60 mg of elemental iron and 2.8 mg of folic acid	Weekly	3 months of supplementation, then 3 months of no supplementation, then restart supplementation for 3 months, etc.
Pregnant women	Prevention of maternal anemia, puerperal sepsis, low birth weight, and preterm birth	30–60 mg of elemental iron and 0.4 mg of folic acid Note: where prevalence of anemia among pregnant women is ≥ 40%, a dose of 60 mg is recommended	Daily	Throughout pregnancy, beginning as early as possible
	Where prevalence of anemia among pregnant women is < 20%	120 mg of elemental iron and 2.8 mg of folic acid	Weekly	Throughout pregnancy, beginning as early as possible
Children 6–23 months of age (iron only)	Where the diet does not include foods fortified with iron or the prevalence of anemia is > 40%	10–12.5 mg elemental iron[1]	Daily	3 consecutive months in a year
Zinc				
Children with diarrhea < 6 months of age	To reduce the duration and severity of diarrhea and provide protective effects for 2–3 months following the episode	10 mg	Daily	10–14 days
Children with diarrhea ≥ 6 months of age		20 mg	Daily	10–14 days

Source: WHO. 2013. *Essential Nutrition Actions: Improving Maternal, Newborn, Infant and Young Child Health and Nutrition*. Geneva: WHO; WHO. 2016. *WHO recommendations on Antenatal Care for a Positive Pregnancy Experience.* Geneva: WHO.

[1] 10–12.5 mg of elemental iron equals 50–62.5 mg of ferrous sulfate heptahydrate, 30–37.5 mg of ferrous fumarate, or 83.3–104.2 mg of ferrous gluconate