

Alert	
Indication	Prevention of vitamin deficiency in infants born < 35 weeks gestation or < 2 kg birth weight.
Action	Multivitamin supplement
Drug type	Multivitamin
Trade name	Penta-Vite infant 0-3 years oral solution
Presentation	Oral liquid Each 0.45 mL contains: Vitamin A retinyl palmitate 490 microgram Vitamin B1 thiamine 0.54 mg Vitamin B2 riboflavine sodium phosphate 1.1 mg (equiv. riboflavine 800 microgram) Vitamin B3 nicotinamide or Niacin 7.1 mg Vitamin B6 pyridoxine 135 microgram Vitamin C ascorbic acid 42.8 mg Vitamin D cholecalciferol 10.1 microgram (400 Units)
Dose	0.45 mL daily. NOTE: Dose not based on weight. Continue up to 12 months corrected age
Dose adjustment	
Maximum dose	0.45 mL
Total cumulative dose	
Route	Oral
Preparation	
Administration	Oral or intra-gastric tube. Administer undiluted or mixed with a small amount of milk into infant's mouth through a feeding teat or via intra-gastric tube.
Monitoring	
Contraindications	Not yet tolerating full feeds.
Precautions	Direct administration into the mouth may cause choking and apnoea.
Drug interactions	
Adverse reactions	
Compatibility	
Incompatibility	
Stability	Do not shake.
Storage	Store below 25°C. Protect from light. Refrigerate after opening. Use within 9 weeks after opening.
Excipients	
Special comments	
Evidence	No studies were located which examined the impact of multivitamin supplementation on any outcomes in low birth weight (LBW) infants. Policy statements from organisations in developed countries recommend providing multivitamin supplementation with a neonatal multivitamin preparation containing vitamins A, D, C, B1, B2, B6, pantothenic acid and niacin to all LBW infants receiving human milk from birth until the infant attains a weight of 2000 g. Many units provide a multivitamin preparation to all LBW infants until 6 to 12 months chronological age. Vitamin D – There is evidence of reduced linear growth and increased risk of rickets in babies with a birth weight < 1500 g fed un-supplemented human milk. There is no consistent benefit of increasing the intake of vitamin D above 400 Units per day. There are no clinical trial data on the effect of vitamin D on key clinical outcomes in infants with a birth weight > 1500 g.
Practice points	Penta-vite® contains vitamin D, it may be used for later preterm or term infants at risk of vitamin D deficiency. However, this may be better managed through the use of single ingredient vitamin D preparations (see Colecalciferol)

	For preterm infants the dose may be halved (i.e. 0.23 mL) and given twice daily to improve tolerability. Infants with cholestasis should receive additional vitamin D supplementation until cholestasis/fat malabsorption resolves (see Colecalciferol). Other fat soluble vitamins may also require supplementation.
References	<ol style="list-style-type: none"> 1. Product Information: Penta-Vite Multivitamins Oral Liquid. MIMSONline. Accessed 18/07/2014. 2. Optimal feeding of low-birth-weight infants, technical review. Karen Edmond, MBBS, MSc (Epidemiology), PhD. London School of Hygiene and Tropical Medicine, London, U.K. Rajiv Bahl, MD, PhD. Department of Child and Adolescent Health and Development, WHO, Geneva.

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