

**Extracts from:- Vitamin D and Bone Health: A Practical Clinical Guideline for Patient Management 2013  
National Osteoporosis Society (NOS)**

**Where rapid correction of vitamin D deficiency is required**, such as in patients with symptomatic disease or about to start treatment with a potent antiresorptive agent (zoledronate or denosumab), the recommended treatment regimen is based on fixed loading doses followed by regular maintenance therapy:

- a loading regimen to provide a total of **approximately** 300,000 IU vitamin D, given either as separate weekly or daily doses over 6 to 10 weeks
- maintenance therapy comprising vitamin D in doses equivalent to 800–2000 IU daily (occasionally up to 4,000 IU daily), given either daily or intermittently at higher doses.

**Lower daily dose or higher intermittent dose?**

There is controversy concerning the need for and benefit of higher doses given intermittently as compared to daily dosing. In the few studies comparing both, one found that the intermittent dosing was less easily delivered by nursing staff in care homes and so less effective but that when different dosing regimens are consistently delivered they have equal biochemical efficacy.

**Loading regimens** for treatment of deficiency up to a total of approximately 300,000 IU given either as weekly or daily split doses. The exact regimen will depend on the local availability of vitamin D preparations but will include:

- 50,000 IU capsules, one given weekly for 6 weeks (300,000 IU)
- 20,000 IU capsules, two given weekly for 7 weeks (280,000 IU)
- 800 IU capsules, five a day given for 10 weeks (280,000 IU).

**Local guidance states:**

Where treatment of vitamin D deficiency is required a loading dose of up to 300,000 units, to be given over a period of 6 to 12 weeks is advocated. This can be achieved with one of the following regimens:

- 800 units 5 tablets or capsules each day for 10 weeks (total 280,000 units)
  - 3,200 units 1 capsule each day for 12 weeks (total 268,800 units)
  - 20,000 units 2 capsules each week for 7 weeks (total 280,000 units)
  - 40,000 units 1 capsule each week for 7 weeks (total 280,000 units)
- (NB: a licensed 50,000 unit preparation was not available when this was written)

**Overall:**

**One 4,000 unit tablet each day for 10 weeks provides the best value where regular daily dosing is preferred.**

**If intermittent dosing is suitable, then 50,000 unit oral solution in 1ml unit dose containers (InVita D3) once a week for 6 weeks provides best value.**

<b>Colecalciferol preparation</b>	<b>Pack size</b>	<b>Price (Drug Tariff Dec 16)</b>	<b>Licensed age groups</b>	<b>Cost of loading regimen for adults (whole packs)</b>	<b>Licensed Brand</b>
800unit tabs	30	£3.60	Adults & adolescents	£43.20	Desunin
800unit caps	30	£3.60	Age ≥ 12 years	£43.20	Aviticol
1,000unit tabs	28	£2.95	Age ≥ 12 years	£29.50 (4 od for 10wk)	Stexerol D3
1,000unit caps	30	£2.34	Age ≥ 12 years	£23.40 (4 od for 10wk)	Aviticol
3,200unit caps	30	£13.32	Adults	£39.96	Fultium D3
4,000unit tabs	70	£15.90	Age ≥ 12 years	£15.90 (1od for 10wk)	Desunin
20,000unit capsules	15 30	£17.04 £29.00	Age ≥ 12 years	£17.04 £29.00	Fultium D3
25,000unit tabs	12	£17.00	Age ≥ 12 years	£17.00 (2 a wk for 6wks)	Stexerol D3
40,000unit caps	10	£15.00	Age ≥ 12 years	£15.00	Plenachol
2,400units in 1ml oral drops (SF)	10ml	£3.60	All ages	Generally for children - dose is age dependent	InVita D3
2,740units in 1ml oral drops (SF)	25ml	£10.70	All ages	Generally for children - dose is age dependent	Fultium D3
10,000units in 1ml oral drops (SF)	10ml	£5.85	All ages	Generally for children - dose is age dependent	Thorens
10,000units in 1ml oral solution (SF) (25,000unit dose)	2.5ml 10ml (as 4 x2.5ml)	£1.55 £5.85	All ages	£29.25 (1 a wk for 12wk or 2 a wk for 6wk)	Thorens
15,000units in 5ml oral solution	100ml	£144.00	Age ≥ 12 years	£144.00 (10ml a wk for 10wk)	Thame Labs Ltd
25,000units in 1ml oral solution (SF)	3 x 1ml unit doses	£4.45	All ages	£17.80 (1 a wk for 12wk or 2 a wk for 6wk)	InVita D3
50,000units in 1ml oral solution (SF)	3 x 1ml unit doses	£6.25	Adults	£12.50 (1 a wk for 6wk)	InVita D3

Drug Tariff specials are very expensive (£147 to £791) for a 300,000unit course and should be avoided.