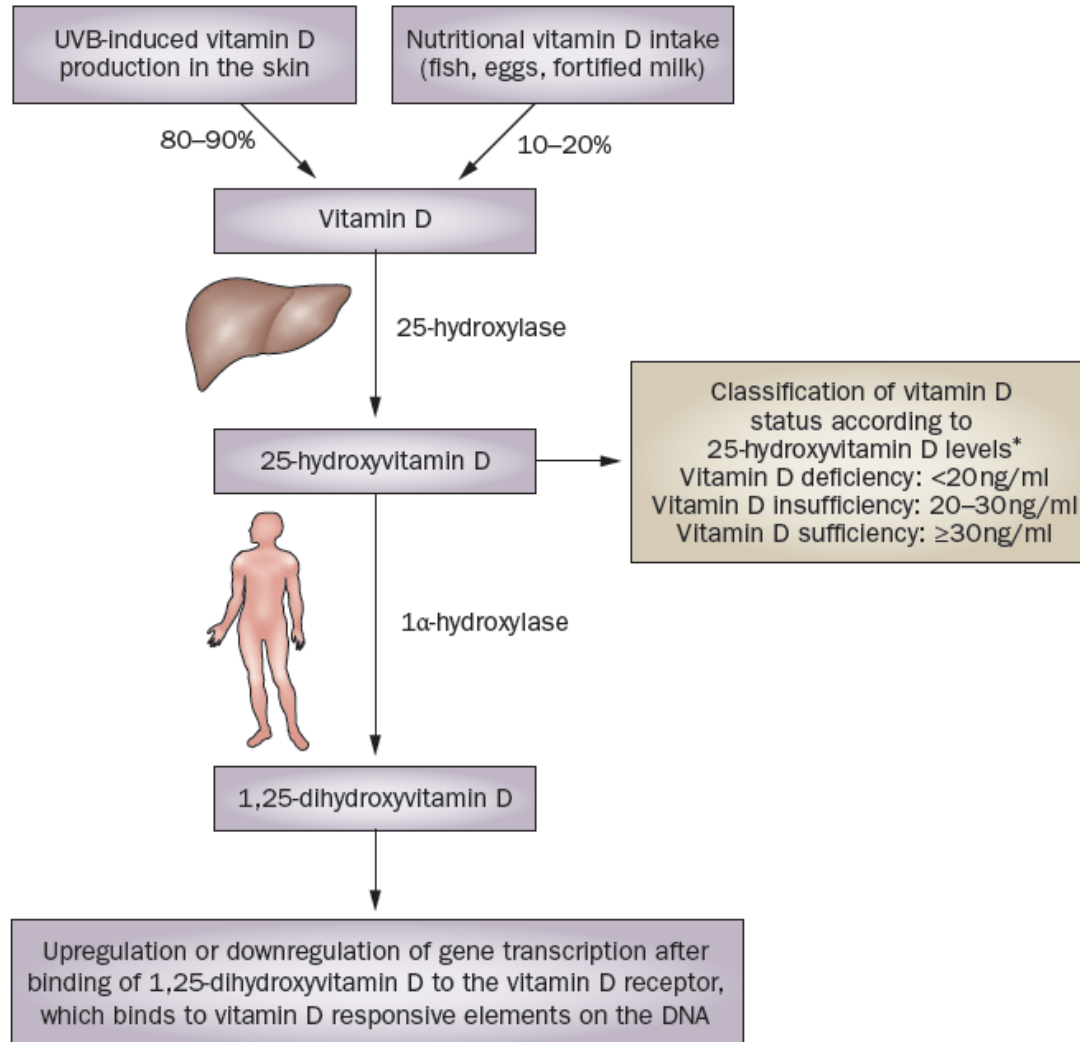
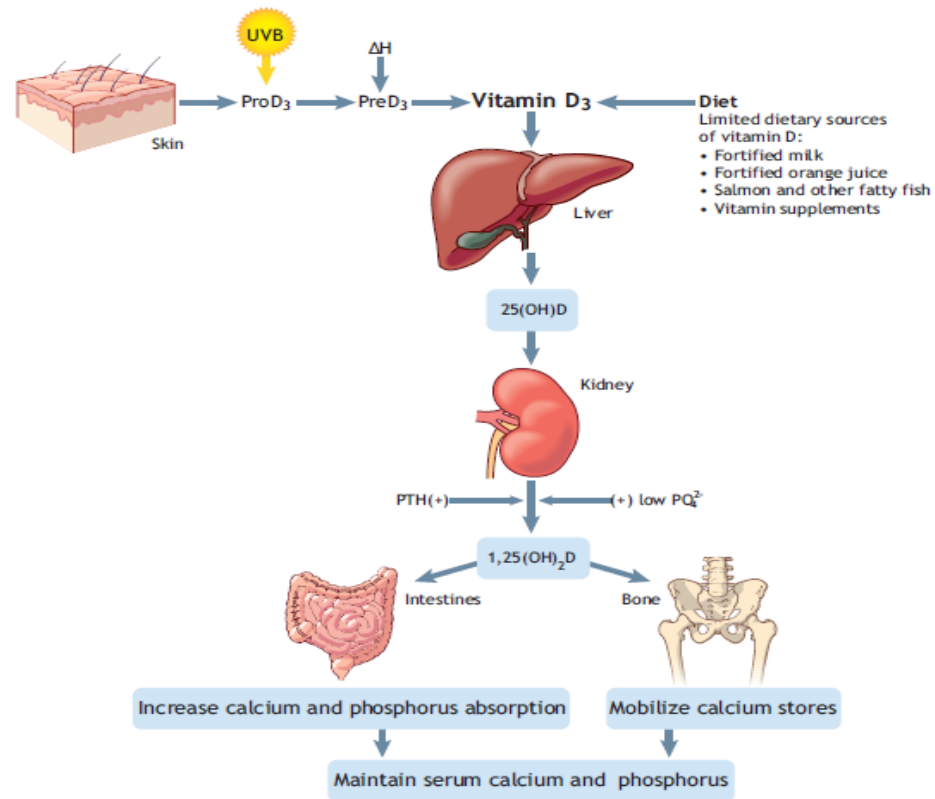


Vitamin D



Vit D pathway



Vit D levels

Category	25-Hydroxyvitamin D Concentrations, ng/mL (nmol/L)
Deficiency	<20 (<50)
Insufficiency	20-32 (50-80)
Sufficiency	32-100 (80-250)
Excess	>100 (>250)
Intoxication	>150 (>325)

Vitamin D deficiency

- Using a sunscreen with as little as a 15-factor protection cuts the skin's vitamin D production by 99 percent.
- Sources of vitamin D: Salmon, tuna, mackerel (250-1000IU/serving), milk.
- Living in Manchester.

Defined on basis of Bone pathology

- <10- Vit D deficient need treatment
- 10-20- Vit D insufficient need treatment
- 20-30- Suboptimal treatment if clinically indicated (Bone pain, raised PTH, low Ca, PO₄).

Increasing Vit D

- Increase 1ng/mL for every 100IU of VitD3.
- If baseline 10ng/mL then you need 3000 IU/day to raise it to ~40ng/mL.
- Exposure arms/legs 5-30mins between 10am-3pm for 2 days/week.
- Most individuals need 4000IU/day
- Supplement by 2000IU/day

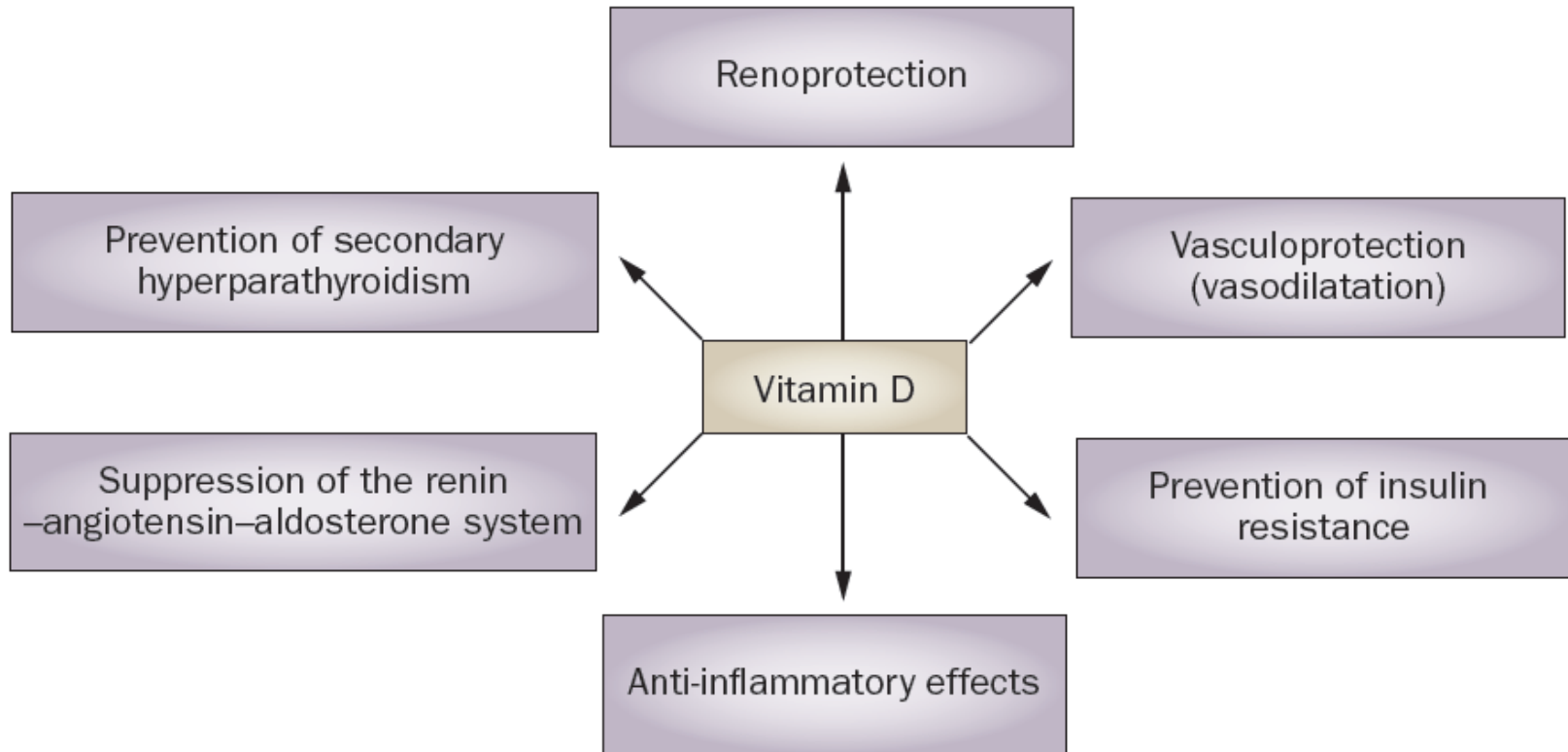
Initial Treatment

- Ergocalciferol (500,000U) x 1 tablet (50,000U) daily for 10 days.
- Cholecalciferol (480, 000U) x2 tablets (20,000U) daily for 12 days.
- Recheck Ca at 1 month & Vit D after 3 months.

Maintenance

- Baseline <15 : Monthly (Cholecalciferol-40,000U or Ergocalciferol (50,000U/1.25mg)).
- Failure to correct i.e. <30 after loading then as above.
- >30 (Calcichew D3 forte 2 daily!)
- Repeat Vit D at 6 months.

Multiple effects



Hazard ratio for heart disease according to level of 25-OH D

Level of 25-OH D	Hazard ratio (95% CI)
10–15 ng/mL	1.53 (1.00–2.36)
<10 ng/mL	1.80 (1.05–3.08)

p for linear trend 0.01

Vitamin D & Pregnancy

NICE- March 2008

- All women should be informed at the booking appointment about the importance of maintaining adequate vitamin D stores during pregnancy.
- Women may choose to take 10 micrograms of vitamin D per day, as found in the Healthy Start multivitamin supplement.
- Women at greatest risk:
 - South Asian, African, Caribbean or Middle Eastern family origin.
 - Women who have limited exposure to sunlight (predominantly housebound, or usually remain covered when outdoors)
 - Women who eat a diet particularly low in vitamin D: consume no oily fish, eggs, meat, vitamin D-fortified margarine or breakfast cereal
- Women with a pre-pregnancy body mass index >30 kg/m².