

# Sunlight Robbery

## The failure of UK Policy on Vitamin D



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In search of evidence-based Public Health policy

rain, drizzle,  
precipitation,  
shower, spit,  
pissing down,  
bucket down,  
torrent, driving  
rain, Scotch mist,  
raining cats and  
dogs, pouring  
down, sprinkle,  
drop, hail, flood,  
deluge, barrage,  
Monsoon, mizzle,  
sleet, downpour,  
drop, pelting  
down, cloudburst,  
drencher, flurry,  
heavy dew, sheets,  
spate, stream,  
patter, cloud, fog,  
haze, mist, vapour,  
smog, spray,  
miasma, murk,  
harr (sea mist),  
brume, overcast

## 34 words for rain in English 12 words for cloud or fog



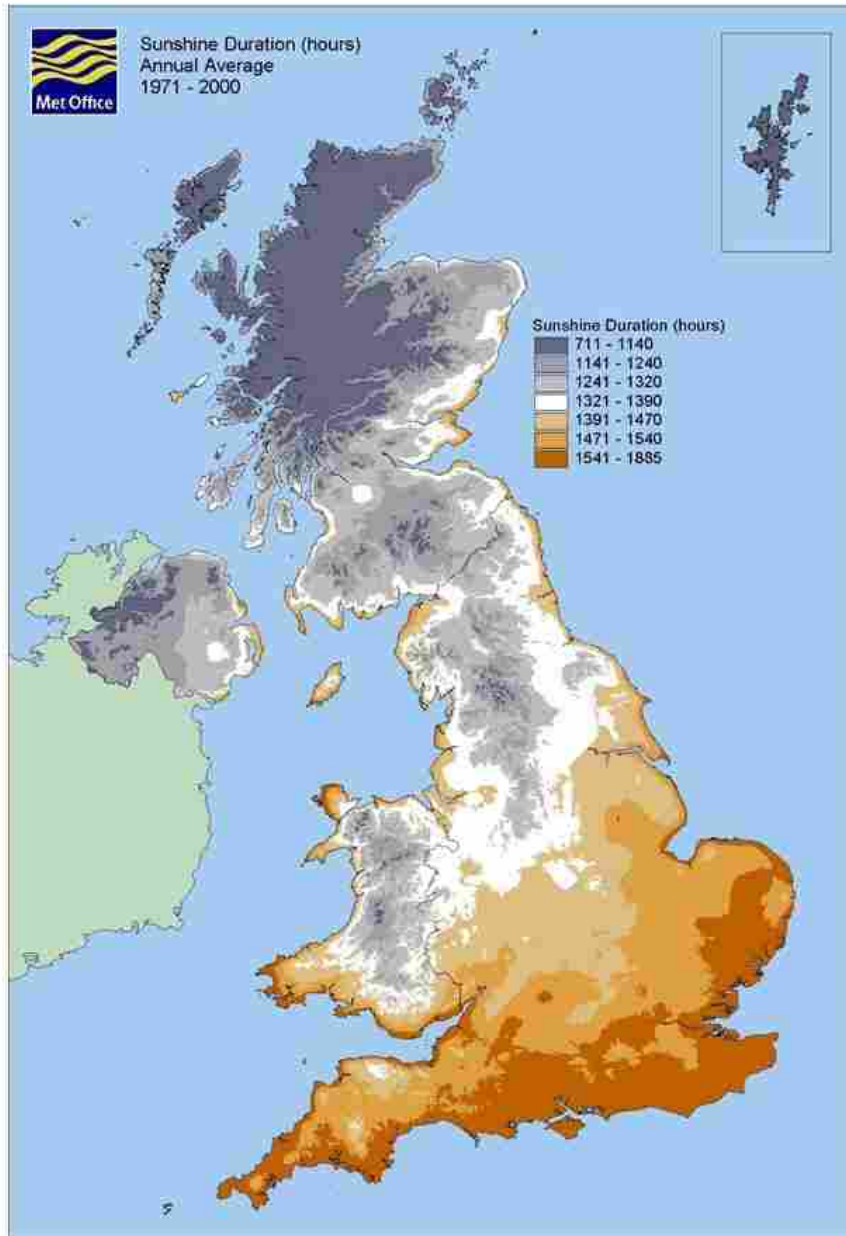
# Clothes reduce sun exposure by about 80 %



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1950s and  
before –  
boys wore  
shorts – girls  
didn't wear  
tights and  
leggings



# Hours of Sunshine

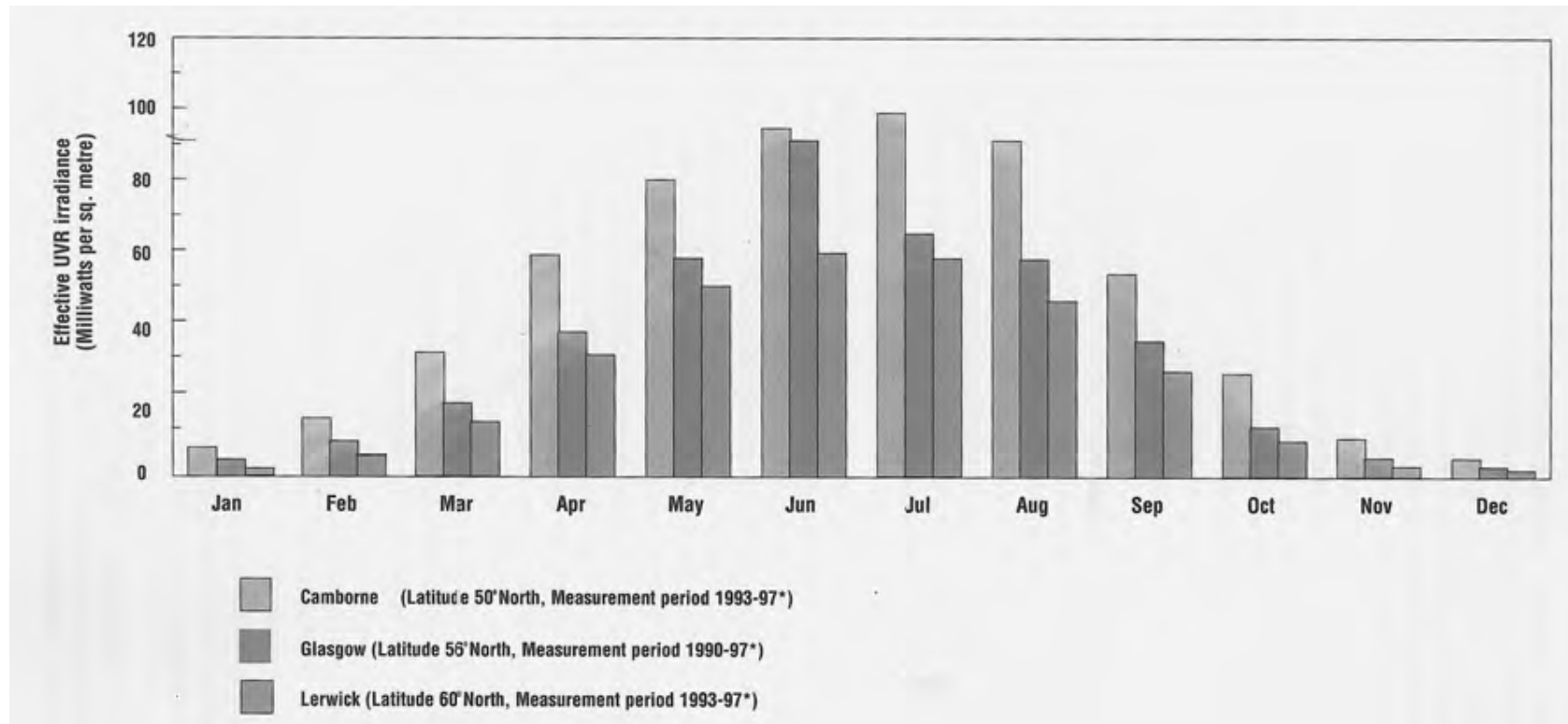
Annual average 1971-2000

Cloud cover from wet westerly winds gives Glasgow 50% less UVB than Lund on the same latitude in Sweden.

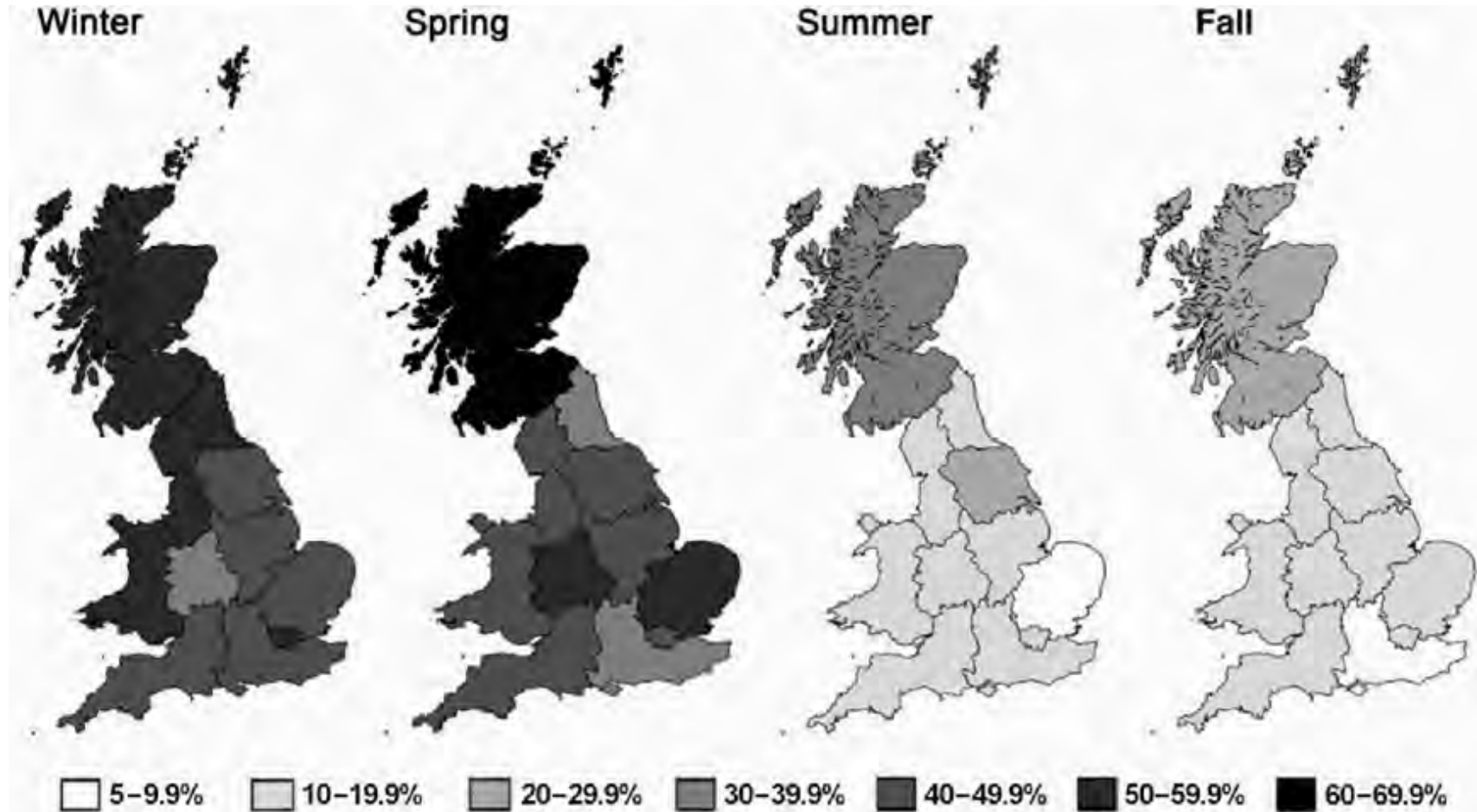
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# North/South difference in UV

Glasgow has substantially less sunlight than southern England in all months except June.



# Prevalence of hypovitaminosis D serum level <40nmol/L 25 OHD



# Deep-fried Mars Bar





# **Scots suffer more**

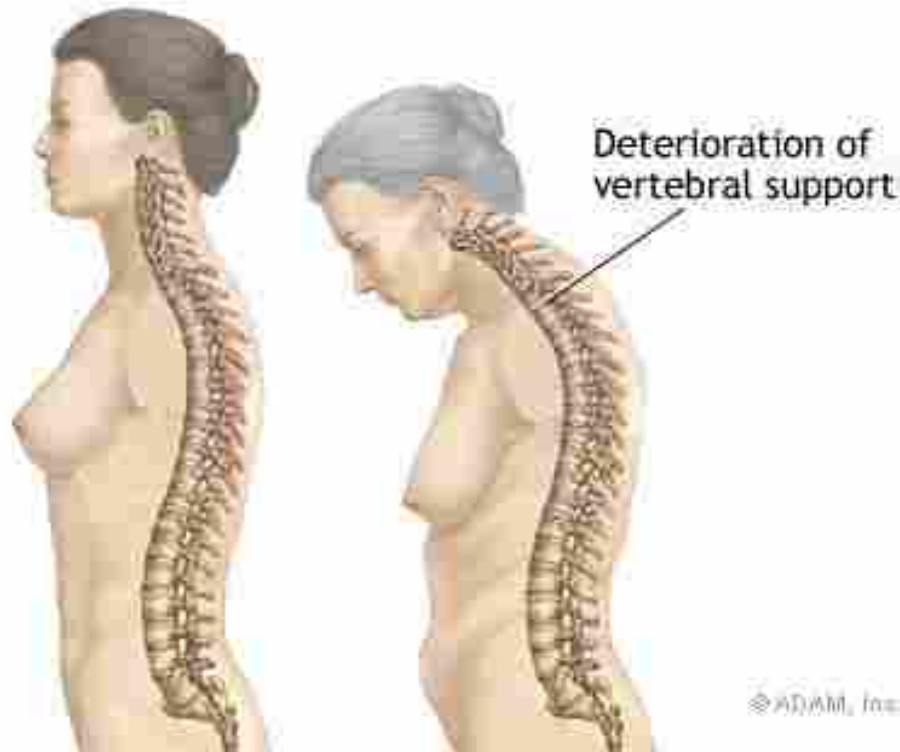
- **Heart and blood vessel disease**
- **High blood pressure and stroke**
- **Common cancers e.g. bowel and breast**
- **Fractures in children - Heart failure in infants**
- **Autoimmune diseases including:**
- **Multiple sclerosis - Diabetes type 1 - Crohn's**

# Major 'Lifestyle' Risk Factors for Health

- Smoking tobacco
- Drinking alcohol
- Overeating – obesity
- “Modern industrial” diet
- Insufficient vitamin D

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# Failure No. 1



No supplements advised for normal adults – leaves old people vulnerable to falls, fractures, and deformed bones



## Failure No. 2

Vitamin D not provided in first six months of baby's life

# Failure No 3



Tony Blair  
mocks the  
nanny state –  
Healthy Start  
vitamins  
available to a  
few hundred  
mothers only

**Failure No. 4:** its impossible to get more than 5-10% of optimum D from diet



Population levels of vitamin D need to be raised by development of fortified foods

# Failure No 5: Denial that a tan is natural and a sign of good health



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# The SunSmart policy: Darkness at noon

## Pre-2006

- Stay in shade between 11am and 3pm
- Always cover up
- Then use factor 15 sunscreen

## After-2006

- Spend time in the shade between 11am and 3pm
- Aim to cover up with T-shirt, hat
- Then use factor 15+ sunscreen



# Russians welcome the early spring sun at Peter and Paul Fortress, St Petersburg



## Panther chameleon - *Furcifer pardalis*

Chameleons  
alter their  
sunbathing  
behaviour to  
regulate their  
requirement  
for vitamin D

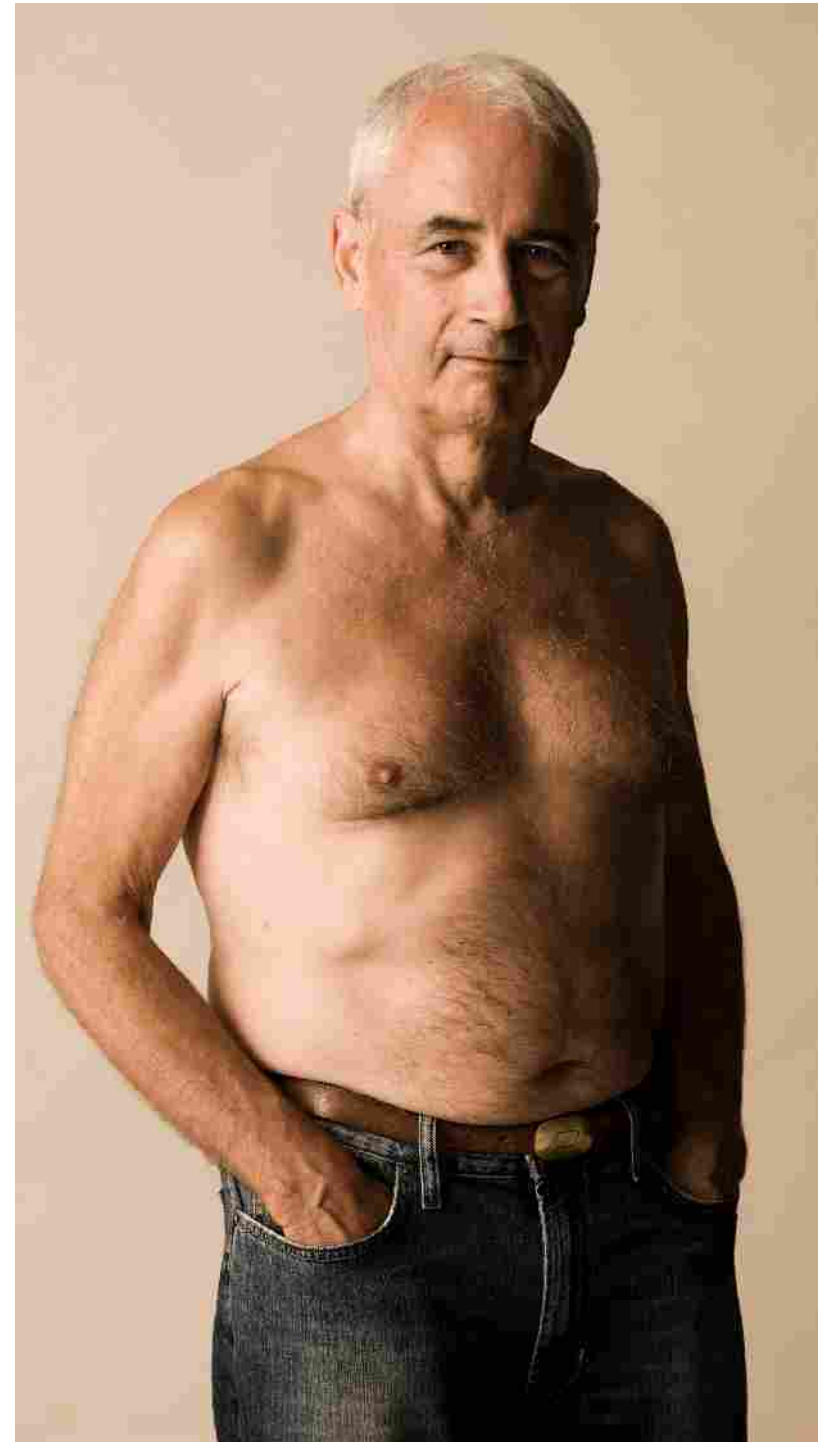


# Reductio ad absurdum – child in total sunsuit



## **The SunSafe advice. Safe and Smart**

- 1. Sunbathe safely without burning - everyday if you can.**
- 2. The middle of the day is a good time for sunbathing in the UK.**
- 3. Start by sunbathing for 2-3 minutes each side. Gradually increase from day to day.**
- 4. Don't use sun screen cream while sunbathing.**
- 5. If feeling hot or uncomfortable expose a different area, cover up, move into the shade – or use sunscreen.**
- 7. Children benefit from sun exposure, but need guidance to avoid burning.**

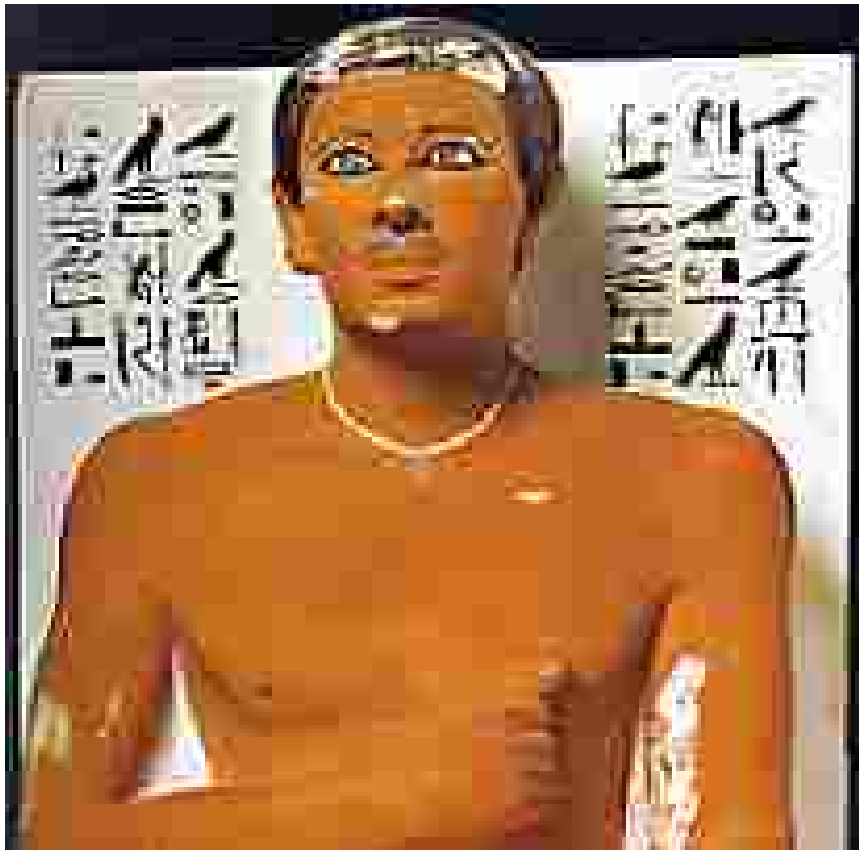




Nigella Lawson, domestic goddess, cookery guru, celebrity chef, in burkini on Bondai Beach, Australia



# Skin fashion 2,000 BC: Rahotep and Nofret





Girls Aloud  
show skin  
fashions



Gwyneth Paltrow suffered from D deficiency, osteoporosis and fracture







**Faye Dunaway**  
shows off her youthful face - but  
her hands reveal her true age

**Daily Mail**  
**Dec 2007**



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# Jacqueline du Pré – talent and tragedy



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# Kenyan runners lead the London marathon 2011

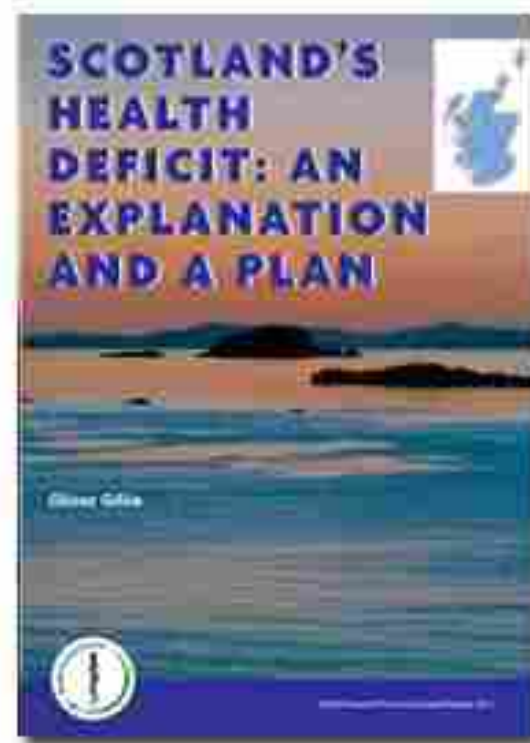
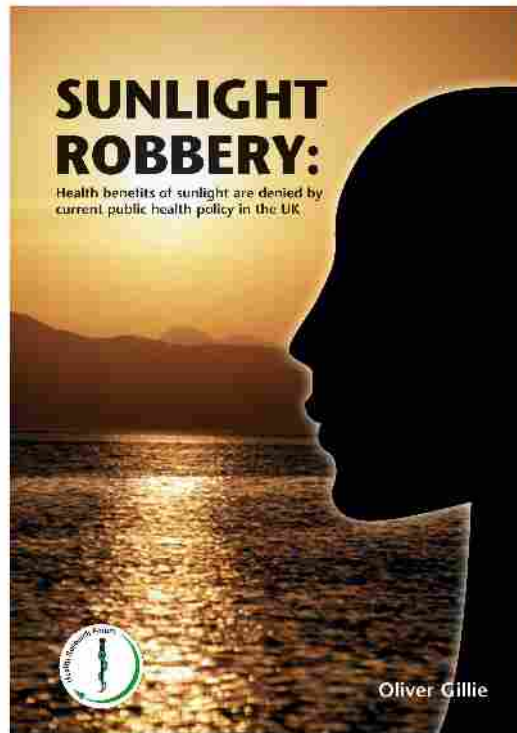


# Sir Richard Doll



**Took a monthly dose of  
vitamin D equivalent to  
1,000 IU/day**

# SunSafe advice is evidence-based



O. Gillie. A new government policy is needed for sunlight and vitamin D.  
British Journal of Dermatology, 2006, vol. 154, pp1052–1061

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# Melanoma

## Decreased risk

- Outdoor work/lifestyle
- Regular sun exposure

## Increased risk

- Indoor work/lifestyle
- Intermittent sun exposure
- Sunburn
- More than 25 moles
- Very pale skin
- Suppressed immunity
- Increased UVA exposure from use of sun creams

Contraindications – only take vitamin D under medical supervision if you have one of these conditions

- sarcoidosis
- tuberculosis
- hyperparathyroidism
- hypercalcaemia
- kidney stones
- lymphoma



# Vitamin D Products – take 2-4000 IUs (100ugms) per day

- Boots and other chemists 1000 IUs
- Holland Barrett – 1000 IUs
- Online: VitaminD3world – 1000-5000 IUs
- Online Bio-Tech Pharmacal, Ar. 50,000 IUs
- On prescription Dekristal 20,000 IUs

# Excess mortality in Scotland compared with England - mortality rates standardised for deprivation.

From Hanlon et al., Journal of Public Health. 27 (2) pp 199-204.

