TAFAT EVIDENCE GUIDE | NO. 002

The Essential Guide to Vitamin D

Sources, dosage, testing, safety and choosing thoughtfully

A concise guide for informed choices

Vitamin D is essential, but the dose and the total from every product matter. This guide separates established guidance from marketing claims and shows what to check before buying.

REVIEWED & REFERENCED | TRUTH BEFORE COMMISSIONS

START HERE

Vitamin D in one minute

What it does. Vitamin D helps the body absorb calcium and phosphorus and supports normal bones and muscle function. Its active form behaves like a hormone.

Where it comes from. Sunlight on skin, a limited range of foods, fortified foods and supplements.

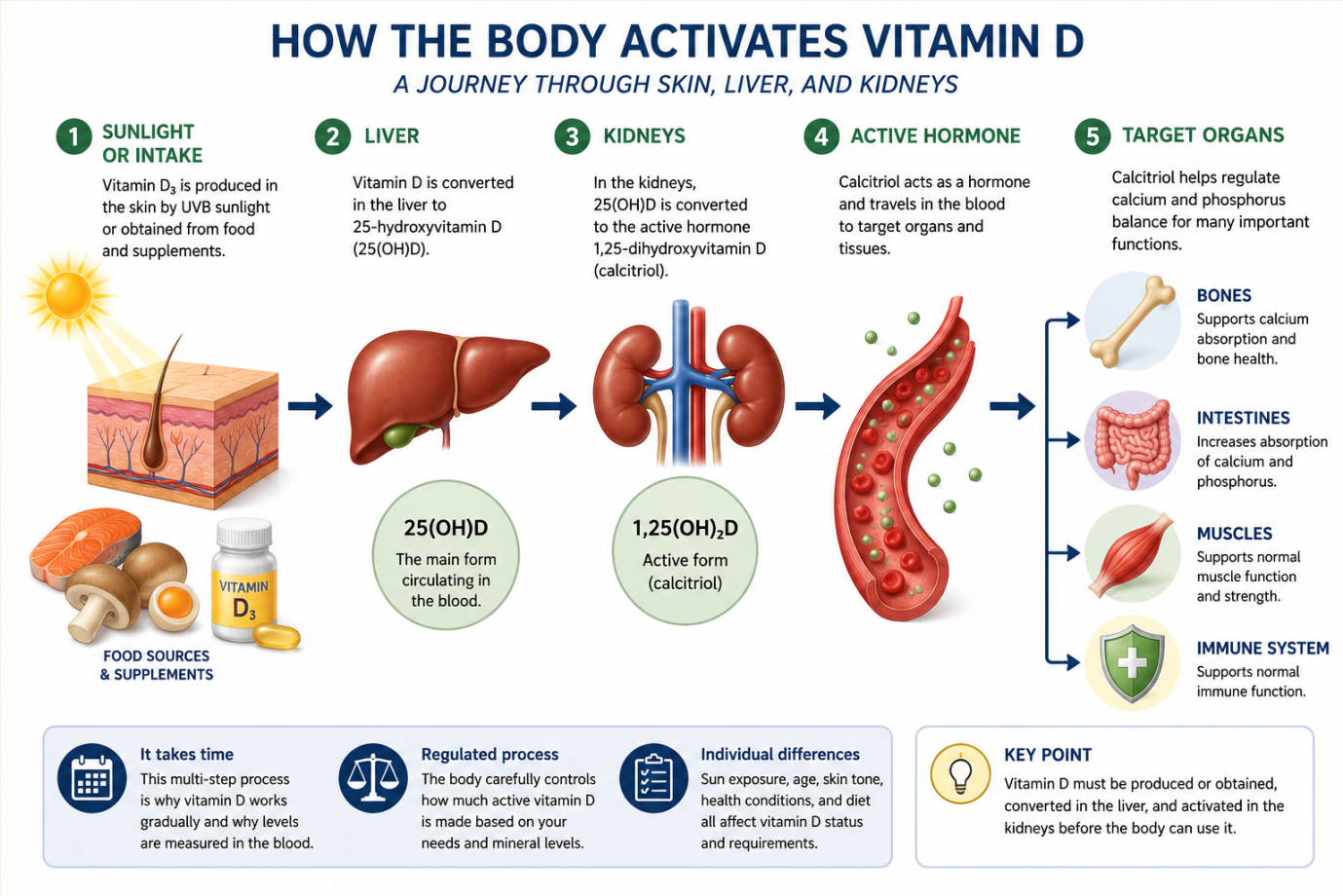
What most UK adults are advised. The NHS advises considering 10 micrograms (400 IU) daily in autumn and winter. People at higher risk should consider it throughout the year.

What not to assume. More is not automatically better. Unless a clinician advises otherwise, adults should not exceed 100 micrograms (4,000 IU) daily from all sources.

TAFAT rule

Read the serving size, convert micrograms and IU if needed, add every source, and seek professional advice for treatment doses or medical conditions.

From sunlight or intake to active vitamin D



Educational overview. Individual metabolism and clinical needs vary.

SOURCES

Sunlight, food and supplements

SUNLIGHT

Sunlight is variable. Season, latitude, time outdoors, age, skin pigmentation, clothing and cloud cover all influence production. Sunburn is not a safe strategy.

FOOD

Food sources are limited. Oily fish, egg yolks, liver and some fortified foods can contribute. Always check the label because fortification varies.

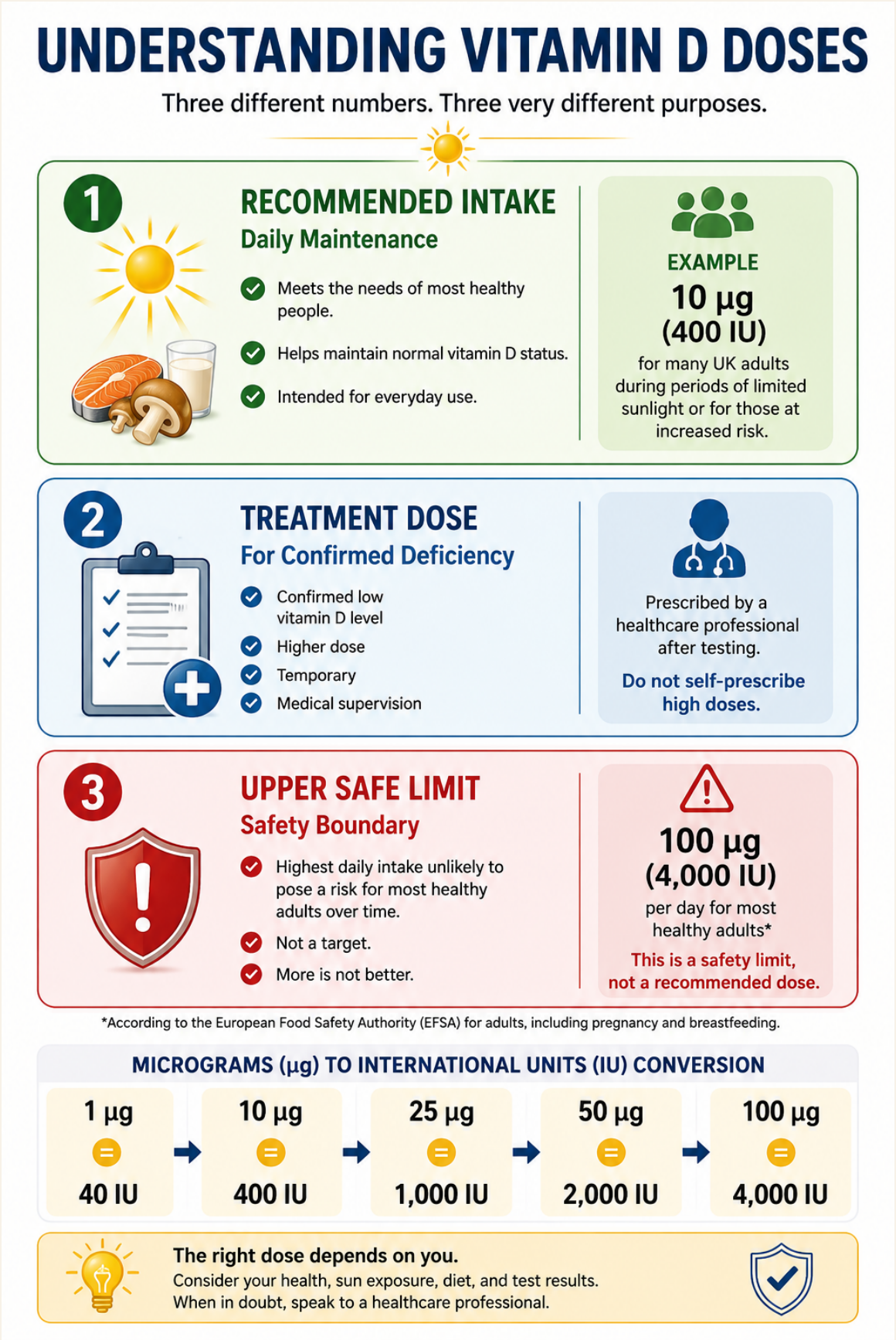
SUPPLEMENTS

Supplements give a measured dose. Useful when guidance or individual circumstances indicate a need. Check D2 or D3, dose per serving and duplicated ingredients.

Remember the total

A multivitamin, calcium formula, cod-liver oil, fortified drink and separate Vitamin D product may all contribute to daily intake. Your body adds every source together even when the labels come from different brands.

Maintenance, treatment and safety



UK guidance shown. Clinician-directed treatment doses may differ.

Who may need closer attention

WHO IS MORE LIKELY TO BECOME VITAMIN D DEFICIENT?

Not everyone begins in the same place. Many factors can increase your risk.

1. LIMITED SUNLIGHT

- Spend most of your time indoors
- Night shifts
- Hospital or care facilities
- Rarely expose skin to sunlight

Less UVB exposure = less vitamin D production.

2. DARKER SKIN

Melanin reduces UVB penetration. Longer sun exposure is often needed to produce the same amount of vitamin D.

8. CERTAIN MEDICATIONS

Examples include:

- Anti-epileptics
- Glucocorticoids
- Rifampicin
- Some HIV treatments
- Weight-loss medicines

These can affect how your body uses vitamin D.

VITAMIN D RISK FACTORS

Different lives.
Different bodies.
Different needs.

3. OLDER ADULTS

- Skin produces less vitamin D
- Less time outdoors
- Lower dietary intake
- More chronic illnesses
- Multiple medications

4. PREGNANCY & BREASTFEEDING

Increased nutritional demands. Important for maternal bone health and fetal skeletal development. Supplementation may be recommended.

7. OBESITY

Vitamin D can become distributed into body fat. This may be associated with lower circulating vitamin D levels.

RISK DOES NOT MEAN DEFICIENCY

Anyone can have low vitamin D. Risk factors simply help identify who may benefit from closer assessment.

6. BOWEL SURGERY

Including ileostomy or significant bowel resection. Absorption varies greatly between individuals. Medical assessment is important.

5. DIGESTIVE DISORDERS

- Coeliac disease
- Crohn's disease
- Ulcerative colitis (post-surgery)
- Cystic fibrosis
- Pancreatic disorders

These conditions can reduce the absorption of vitamin D.

REMEMBER

- Having one or more risk factors does not confirm deficiency.
- Symptoms alone cannot diagnose low vitamin D.
- Blood testing provides the best assessment when there is uncertainty.

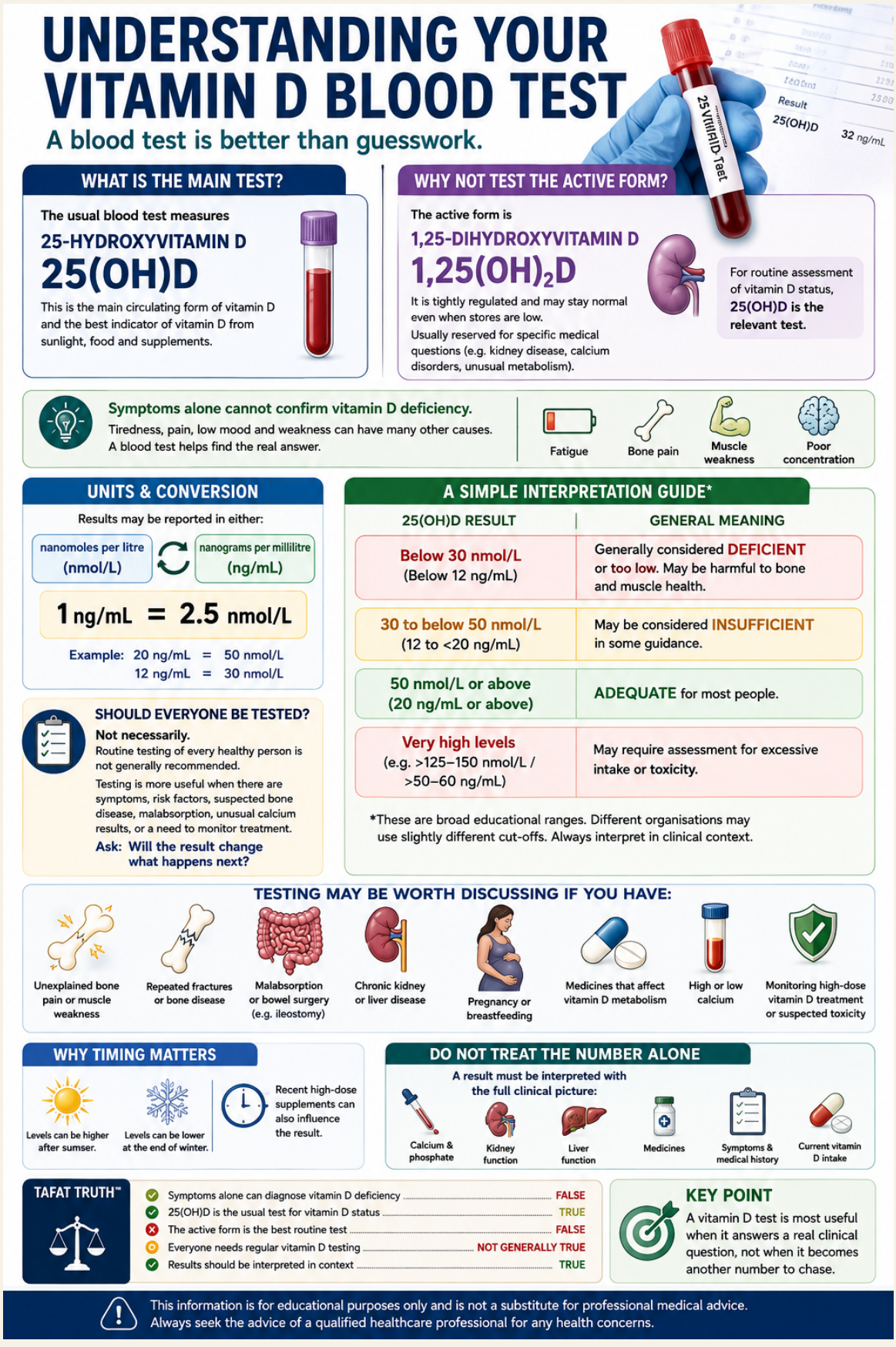
TALK TO A HEALTHCARE PROFESSIONAL

They can help you decide if testing or supplementation is right for you, based on your individual health, lifestyle, and circumstances.

This information is for educational purposes only and is not a substitute for professional medical advice. Always seek the advice of a qualified healthcare professional for any health concerns.

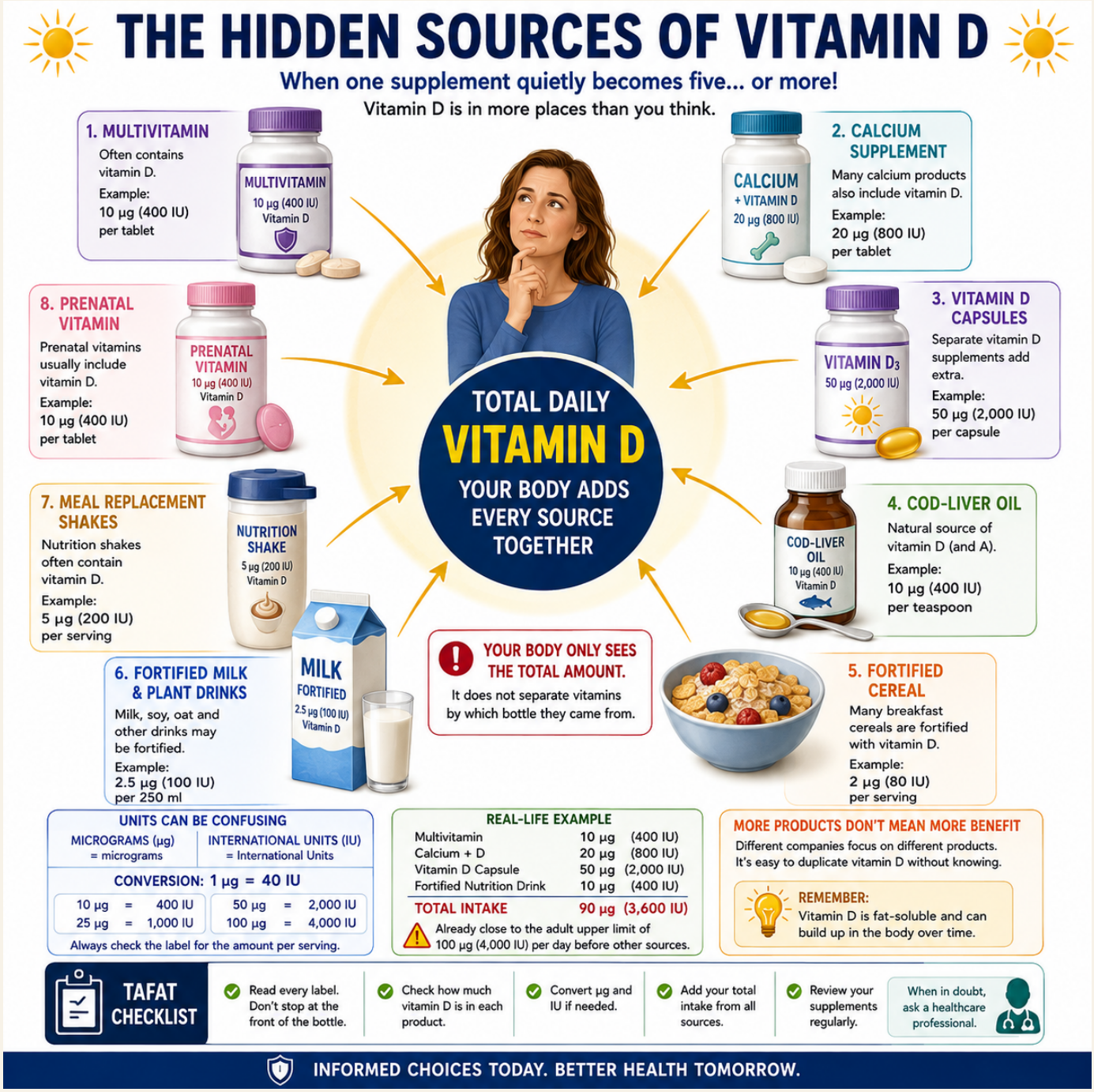
Risk factors do not diagnose deficiency. Discuss uncertainty with a healthcare professional.

Understanding a Vitamin D blood test



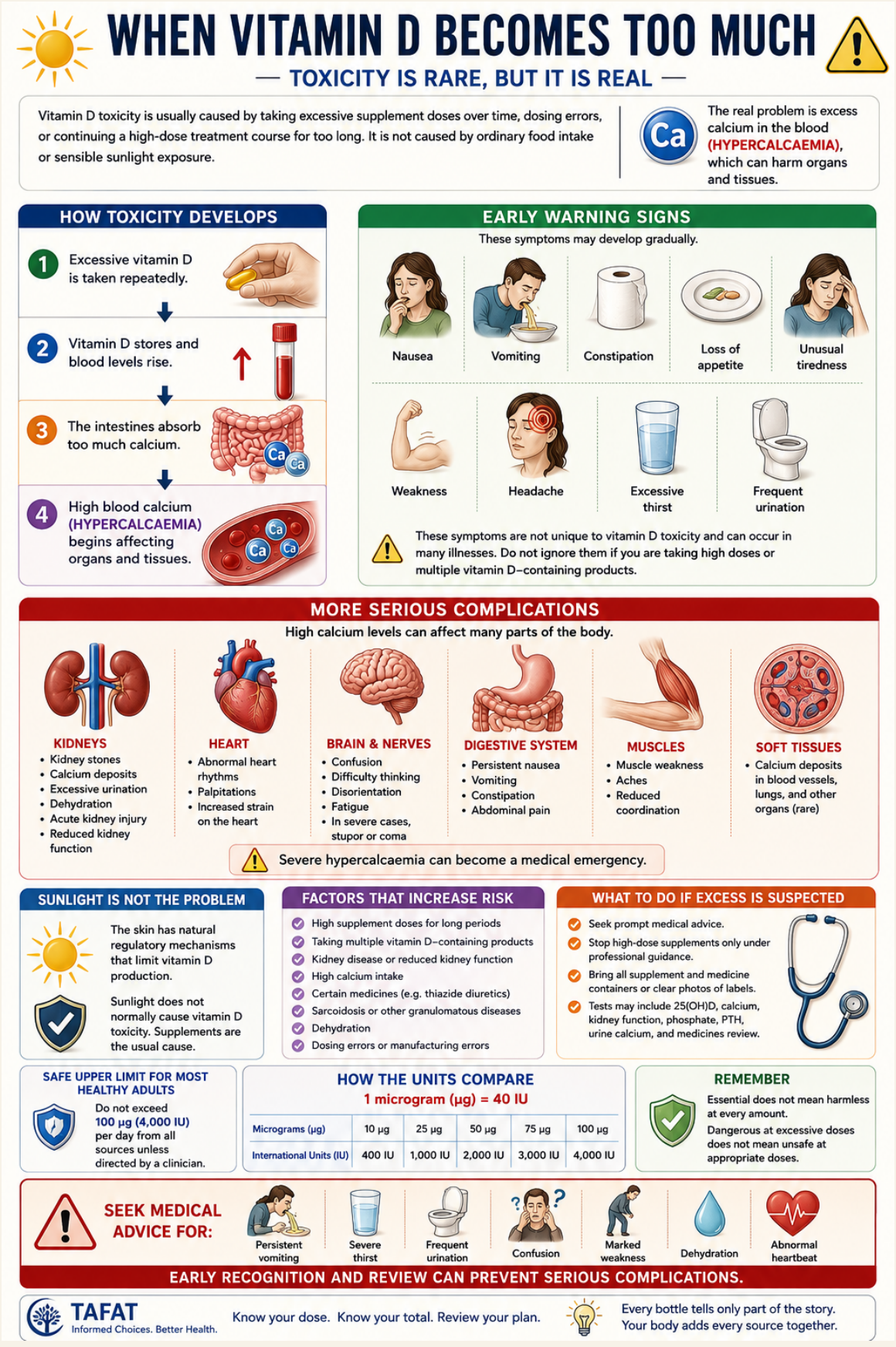
Blood results must be interpreted in clinical context.

Hidden sources can quietly add up



Illustrative amounts only. Use the figures on your own product labels.

When Vitamin D becomes too much



Toxicity is usually linked to excessive supplement intake, not ordinary sun exposure.

BEFORE BUYING

The five-minute label check

1

Serving size

Is the stated dose per capsule, per spray or per several gummies?

2

Vitamin D amount

Check both micrograms and IU. 1 microgram equals 40 IU.

3

Every source

Add Vitamin D from multivitamins, calcium blends, oils and fortified products.

4

Product evidence

Look for transparent labelling, batch testing and realistic claims.

5

Your circumstances

Ask a pharmacist or clinician if you take medicines, have kidney or calcium disorders, are pregnant, or need a treatment dose.

PRODUCT FORMATS

Choose the format, then judge the label

Tablets and capsules
Often simple and economical. Check dose per unit and whether the serving requires more than one.

Gummies
Convenient, but check sugars, sweeteners, the number required per serving and storage warnings.

Liquids and sprays
Useful for people who dislike tablets. Follow the measuring or spray instructions exactly.

D2 and D3
Both can raise Vitamin D status. D3 often produces a larger or more sustained increase in 25(OH)D, but suitability and dose remain more important than marketing language.

Do not let the packaging make the decision.
A premium bottle does not prove a premium formulation. TAFAT reviews the actual dose, serving size, transparency, claims and value.

How products earn a place in the shop

Ingredient transparency

The form and amount must be easy to identify.

Label clarity

Serving size, units and directions must be understandable.

Scientific restraint

Claims should remain within established evidence.

Manufacturing signals

Independent testing or credible quality systems are considered.

Value and fit

The product must serve a clear need without unnecessary overlap.

REFERENCES

Reviewed and referenced

NHS

Vitamin D: vitamins and minerals guidance. Includes UK intake, seasonal supplementation and upper-limit advice.

https://www.nhs.uk/conditions/vitamins-and-minerals/vitamin-d/

NIH Office of Dietary Supplements

Vitamin D Fact Sheet for Health Professionals. Covers physiology, status, evidence, safety and interactions.

https://ods.od.nih.gov/factsheets/VitaminD-HealthProfessional/

NIH Office of Dietary Supplements

Vitamin D Fact Sheet for Consumers. Plain-language safety and upper limits.

https://ods.od.nih.gov/factsheets/VitaminD-Consumer/

European Food Safety Authority

Summary of tolerable upper intake levels for vitamins and minerals. Version 10, June 2024.

https://www.efsa.europa.eu/sites/default/files/assets/UL_Summary_tables.pdf

Health note

This guide is educational and is not a diagnosis or a substitute for personalised medical advice. Product availability, formulations and guidance can change; check current labels and speak with a qualified healthcare professional when needed.