

Comprendre les références nutritionnelles

Nommer la référence,
respecter sa signification.

**Un pourcentage de référence
n'est pas un besoin personnel couvert.**

Références d'étiquetage, références scientifiques et limites de sécurité : revue ciblée de leur usage pour interpréter un relevé alimentaire.

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Synthèse en français · dossier scientifique en anglais

Propulsé par MedLab

L'essentiel

Ce que cette recherche permet de retenir

01 Des références aux rôles différents

Références d'étiquetage, besoins moyens, apports de référence et limites de sécurité répondent à des questions différentes. Elles ne doivent pas être confondues. [Dossier 2, 4-7]

02 La quantité avant le pourcentage

Une proportion de référence journalière situe la quantité saisie par rapport à une valeur nommée. Elle ne démontre ni besoin individuel couvert ni minimum requis pour ce repas. [Dossier 1, 9, 12]

03 Des sources et conditions vérifiables

Population, forme du nutriment, unités, version et conditions d'application doivent être traçables. Les tables françaises et leurs qualificatifs restent à vérifier avant activation ; aucun remplacement silencieux n'est proposé. [Dossier 3, 5-6, 11, 19]

04 La sécurité garde son propre cadre

Une limite supérieure n'est pas une cible de consommation. Les comparaisons restent éducatives ; carence, toxicité, adéquation personnelle et score composite sont différés. [Dossier 7, 13, 20]

Portée et méthode

Revue critique ciblée, non exhaustive. Certaines sources ne sont accessibles que partiellement. La recherche documentaire et les conclusions n'ont pas été actualisées pour cette édition. Les propositions du dossier ne constituent ni une validation clinique de Nutrikom ni une recommandation personnelle.

Parcourir le rapport

Le dossier scientifique conserve sa pagination de référence : 01 à 20.
Les renvois internes désignent cette pagination, affichée en pied de page.

01-03 Familles de références et conditions

04-08 Matrices, définitions et unités

09-13 Calculs, provenance et formulations

14-15 Cas de vérification proposés

16-20 Méthode, bibliographie et réserves

Édition publique

Cette édition ajoute une synthèse française et une navigation au dossier v1.0. La présentation est harmonisée ; les mentions d'outils et d'opérations internes sont retirées. Les données, références, niveaux d'accès aux sources et réserves scientifiques sont conservés. Les propositions décrivent l'état de la recherche à la date du dossier.

Nutrient references and interpretation

Describe the record. Name the reference.

Question ID: REF01

Date: 11 October 2026 | **Version:** 1.0

Population: generally healthy adults; proposed Nutrikom interpretation contract.

Disposition: ADOPT FOR DESIGN. Use reference comparisons as optional educational descriptions. Adopt the scope, eligibility, provenance and missingness rules below. Investigate the interface and independently verify the French registry before release. Defer personal adequacy, deficiency, toxicity and composite-score claims.

Recommended default

Offer a clearly labelled European food-label reference view that does not require a personal profile. Show estimated amounts first; a percentage is secondary context. Keep an optional EFSA scientific-reference view separate. A France/ANSES view is the preferred local scientific option after its exact source tables and conditions have been verified. Never silently replace a missing French value with an EFSA or US value. Safety references form a distinct panel, never a consumption target.

Observation	Permitted interpretation
One meal	Estimated composition of the entered meal. A percentage of a daily label reference is a portion-to-reference ratio, not the fraction of personal needs met. No per-meal minimum or maximum is created.
One user-reviewed day	Estimated intake during the named recorded interval. “Below” or “above” locates that estimate relative to a named value; it does not establish personal adequacy or deficiency.
Several recorded days	Mean and variability on those sampled days, with dates and nutrient-specific denominators. No universal day-count gate establishes usual intake or nutritional status.

Inherited boundaries

DAY01 and REC01 v1.0 were read in full. Intake confirmation, nutrient-data coverage and sampling representativeness remain separate. The proposed ledger is not clinically validated. This review does not revisit collection-method choice, diagnose glycaemic responses, prescribe supplements or validate the Nutrikom Index. The supplied meal variables define scope; no repository change is included. [D1, D2]

Reference families have different purposes

Family / terms	Population, endpoint and use	Interpretation boundary
EU label RI / NRV [1]	Standard adult labelling denominators. Macronutrient RI and vitamin/mineral NRV support comparable food information. They are not a set of individualized requirements.	No age/sex profile needed for generic label context; do not relabel as “your daily needs”. The same 100% has different meanings for sugars, vitamins and energy.
EFSA AR / PRI [2]	AR: requirement of half of a defined healthy group. PRI: intake intended to cover almost all in that group, derived from the requirement distribution. Endpoints vary by nutrient.	Useful scientific references for assessment/planning with appropriate methods. Below a PRI is not a diagnosis; above it does not prove status. Energy AR is not an energy PRI.
EFSA AI [2]	Used when evidence cannot establish AR/PRI; based on observed or experimentally supported intakes judged sufficient. Some AIs emphasize functional or disease-risk endpoints.	Below AI cannot quantify inadequacy. A reliable usual intake at/above AI can support a low likelihood of inadequacy, but this app has not established such an intake.
EFSA RI range [4,5]	Macronutrient share of total energy associated with an appropriate diet. A range, not a required gram amount per meal or a safety interval.	Compare the same energy basis. Do not convert the range to grams using the generic 2000 kcal and imply personal needs.
EFSA UL / safe level [14–18]	UL: chronic total daily exposure unlikely to pose adverse-effect risk for the general population. A safe level is more limited when a UL cannot be derived.	Neither is a recommended intake. An isolated crossing is not toxicity. Lack of a UL is not evidence of unlimited safety.
ANSES BNM / RNP / AS / IR / LSS [19–22]	French terms correspond broadly to AR / PRI / AI / RI range / UL. Source-specific age groups, endpoints and revisions still govern.	Do not infer interchangeable numbers from similar names. Public-health maximum guidance is not automatically an LSS.
US EAR / RDA / AI / UL [24–27]	EAR broadly parallels AR, RDA parallels PRI. AI and UL have analogous roles. US/Canadian DRI values and nutrient units can differ.	An explicit alternative framework only. No US fallback or US Daily Value imported into a European percentage.

Population assessment and individual assessment are different tasks. The EAR/AR cut-point method estimates group prevalence using distributions of usual intake under assumptions; the skewed iron requirement distribution in menstruating women is a key exception. The fraction of logged days below an AR is not that person’s probability of inadequacy. [2,12,24]

Eligibility and missing personal information

Reference eligibility selects a scientific comparator; it does not determine an individual requirement. Ask only for fields that change the requested comparator. These are design rules, not a clinical screening instrument. [2-13,19,24]

Comparison	Minimum eligibility information	Missing / out-of-scope behaviour
Generic adult label context	No personal age, sex, body weight or activity required. Explain that the denominator is a standard adult label reference.	If adult eligibility is unknown, show amounts and generic adult context only; do not imply applicability to children or pregnancy.
EFSA adult AI or RI range	Adult status (≥ 18), life-stage eligibility and declared context. Vitamin D, potassium and fibre use adult values independent of adult sex.	Unknown life stage: generic label context remains possible; do not activate the scientific adult comparison.
Calcium PRI	Age band 18-24 or ≥ 25 ; same comparator across adult sex in EFSA.	Age unknown: do not choose 950 or 1000 by assumption. Show both labelled categories in educational information, without a personalized ratio.
Vitamin A / C PRI	Source-defined male/female category and non-pregnant, non-lactating status. Gender identity alone does not resolve the physiological reference category.	Permit "not provided / unsure". Explain the source categories without inferring one from name or appearance. Withhold category-specific percentage.
Iron PRI / RNP	EFSA: adult male / premenopausal female / postmenopausal female category. ANSES additionally distinguishes low-to-moderate versus high menstrual losses.	Do not infer menstrual losses from sex, age alone, an app symptom or a diagnosis. If unresolved, withhold the category-specific ratio; retain labelled reference information.
Protein PRI in g/day	Eligible adult + a relevant body-weight value, unit, date and explicit conversion from 0.83 g/kg/day.	No default 70 kg. If weight absent, show g/kg as information and recorded grams. French %energy intervals additionally require age/category and PAL for their conditional lower bound.
Personal energy estimate	Would require a separate validated model, age, applicable physiological category, size, activity and relevant circumstances.	Defer here. Generic label energy remains generic. Intake below 2000 kcal does not establish energy deficit or weight-loss need.
Safety-panel adult comparisons	Adult eligibility, source/form compatibility and exposure coverage including supplements/fortified foods where relevant.	Pregnancy/lactation, <18 , illness affecting metabolism/absorption, kidney disease, therapeutic diets or dosing: no personal inference in this v1. Retain amount reporting and explain scope.

Pregnancy/lactation have published references but are outside this initial contract; exclusion is a product scope decision, not absence of science. Highly trained athletes, frailty, bariatric surgery, malabsorption and clinician-directed supplementation also need separate assessment pathways. Do not demand medical details merely to use generic label context.

Matrix A — European food-label context

Source: Regulation (EU) 1169/2011, consolidated 1 April 2025, Annex XIII; Annex I definitions. Adult label denominators only. No personal profile or clinical interpretation. [1]

Nutrikom variable	Label reference	Required basis / limitation
Energy	8400 kJ / 2000 kcal	Use the stated denominator for the displayed unit; paired legal values are not an exact conversion.
Protein	50 g	Daily RI; not body-weight adjusted.
Carbohydrate	260 g	Compatible carbohydrate definition; disclose database basis.
Fat	70 g	Total fat.
Saturated fat	20 g	Label RI; not a UL.
Fibre	None	Amount only in this view.
Total sugars	90 g	Mono/disaccharides, excluding polyols; not added/free sugars or a UL.
Added sugars	None	Do not borrow the total-sugars denominator.
Sodium	No sodium RI	Salt RI = 6 g; explicitly derived sodium equivalent = 2400 mg.
Potassium	2000 mg	NRV.
Vitamin A	800 µg	Verify equivalent/form basis before calculation; incompatible RE/RAE blocks ratio.
Vitamin C	80 mg	NRV.
Vitamin D	5 µg	NRV, distinct from scientific AI.
Calcium	800 mg	NRV.
Iron	14 mg	NRV, not physiological iron requirement.

Safe label-view presentation — UX proposal

Use a neutral table: nutrient, estimated amount, percentage of the named label reference, and coverage note. Header: “European adult food-label references”. Persistent help: “These are standard comparison values, not an assessment of your needs.” Display unavailable percentages as unavailable, not 0%. Do not cap percentages at 100%, subtract them from 100%, or reward reaching 100%.

A meal may show “This meal contains an estimated 250 mg calcium; 31% of the European adult label reference.” A day or sample mean must name its own observation scope. The denominator does not become more personal as records accumulate.

Matrix B — energy and macronutrients

Scientific references for generally healthy adults. %E means percentage of total dietary energy, not percentage of a reference. ANSES rows are reported from indexed original documents; activation requires checking full tables and qualifications. [3–7,13,20–22]

Variable	EFSA comparator / version	French comparator / version	Endpoint / rule
Energy	AR by age/sex/PAL; 2013 [3]. No single universal adult kcal value.	Model/context dependent; 2016 PNNS optimization energy constraints are not personal energy needs. [20]	Energy expenditure. Personal energy model deferred. Display recorded energy separately from label reference.
Protein	AR 0.66; PRI 0.83 g/kg/day; 2012 [6].	IR 10–20%E; lower bound 12%E for PAL<1.5, women >50, men >60; 2016 [20,21].	Nitrogen balance informs EFSA PRI. French interval concerns dietary balance; no gram-for-gram equivalence or universal upper safety limit.
Carbohydrate	RI range 45–60%E; 2010 [4].	IR 40–55%E; 2016 [20].	Dietary pattern / metabolic outcomes, not individual glucose response. Use compatible available-carbohydrate energy.
Fat	RI range 20–35%E; 2010 [5].	IR 35–40%E; 2016 [20].	Different authority ranges; do not blend into 20–40%E or choose whichever makes the record “pass”.
Saturated fat	As low as possible within an adequate diet; 2010 [5]. No numerical adult DRV/UL.	Total SFA maximum 12%E; lauric+myristic+palmitic maximum 8%E; 2016 [20].	Risk-reduction guidance. Total SFA cannot test the 8%E subset without component data; 12%E is not a toxicity boundary.
Fibre	AI 25 g/day; 2010 [4].	AS 30 g/day; 2016 [21].	EFSA emphasizes normal laxation; French AS reflects chronic-disease risk evidence. Below either AI/AS is not deficiency.
Total sugars	No UL or safe level established; 2022 [13].	≤100 g/day excluding lactose and galactose; 2016 [22].	French population risk guidance has a narrower analytical definition than Nutrikom total sugars. Block comparison if excluded sugar amounts are unknown.
Added sugars	No numerical recommended intake, UL or safe level; 2022 [13].	No interchangeable numeric added-sugars reference identified in selected French sources.	EFSA recommends added/free sugars as low as possible within an adequate diet. Do not operationalize this as a zero target.

Meal %energy may describe composition, but daily dietary ranges do not create per-meal compliance tests. Day %energy is descriptive. Repeated-day comparisons require the stated aggregation method and comparable coverage. French protein comparison requires age/category and activity when selecting its lower bound; verify all full-table conditions before classification.

Matrix C — minerals and vitamins

Values below refer to non-pregnant, non-lactating adults. PRI/RNP are population reference intakes, not a measured personal requirement; AI/AS are not minimum-intake tests. Units are per day. [7-12,19,23]

Variable	EFSA / original version	ANSES French context	Endpoint / eligibility
Sodium	2.0 g: safe and adequate intake; 2019 [7]. AR/PRI not derived.	2016: no numeric BNM/RNP/AS, evidence non-consensual [20,21]. A later French sodium row was not verified; no automatic fallback.	Sodium balance plus cardiovascular-risk evidence; not a UL. Separate from derived 2.4 g label-salt equivalent.
Potassium	AI 3500 mg; 2016 [8].	AS 3500 mg; ANSES 2016, discussed in 2020 primary bulletin [23].	Blood pressure and stroke evidence. Applies to general adult groups, not patients with impaired potassium handling.
Vitamin A	AR 570 male / 490 female; PRI 750 / 650 µg RE; 2015 [9].	RNP 750 / 650 µg, French tables [19,20]; confirm RE metadata.	Factorial maintenance of retinol stores; source-defined sex category. Total activity for PRI differs from preformed retinol for UL.
Vitamin C	AR 90 male / 80 female; PRI 110 / 95 mg; 2013 [10].	RNP 110 mg both adult categories, French tables [19,20].	Metabolic losses and body pool; female EFSA value extrapolated by reference weight. French/EFSA disagreement must remain explicit.
Vitamin D	AI 15 µg; 2016 [11].	AS 15 µg; French tables [19,20].	25(OH)D target under minimal skin synthesis. Food intake alone cannot infer blood vitamin D; sunlight does not yield an automatic intake correction.
Calcium	PRI 1000 mg age 18-24; 950 mg ≥25; AR 750 mg ≥25; 2015 [12a].	RNP same adult age bands in 2021 summary [19].	Balance/losses; young-adult bone accretion. Age band required. Historical French optimization constraint 1000 mg is not the current ≥25 RNP.
Iron	PRI 11 mg male/postmenopausal female; 16 mg premenopausal female; 2015 [12b]. AR 6 mg male/postmenopausal.	RNP 11 mg male/postmenopausal and women with low/moderate losses; 16 mg with high menstrual losses. [19,20]	Factorial losses, absorption assumptions and skewed menstrual losses. EFSA 16 mg covers 95% of premenopausal women; do not infer exact absorbed iron.

Selection policy

EFSA is the fully traceable European scientific comparator in this review. France-specific sources are preferred for a France mode, with all population qualifiers independently verified before implementation. If that registry is incomplete, expose a named EFSA mode or amount-only output; do not present EFSA numbers under an ANSES heading. A scientific view may present the reference value itself without calculating an eligible personal ratio.

Matrix D — safety is a separate comparison

Current check: EFSA UL summary, version 11, August 2025, plus original opinions. The summary URL still contains “version-8”; freeze the document’s actual version, not its filename. Adult values below refer to chronic daily exposure, including foods, fortification and supplements unless stated otherwise. [14–18]

Variable	EFSA safety reference	Scope / endpoint / display rule
Vitamin A	UL 3000 µg RE/day; 2024 [15].	Preformed vitamin A (retinol/retinyl esters), not total carotenoid activity. Teratogenicity is a critical endpoint. Require the preformed fraction; no β-carotene UL established.
Vitamin D	UL 100 µg vitamin D equivalents/day; 2023 [16].	D2/D3 plus form-corrected calcidiol. Persistent hypercalciuria critical endpoint; uncertainty factor applied. Do not sum incompatible product units.
Calcium	UL 2500 mg/day; 2012 [17].	Total exposure. Adverse-effect evidence including hypercalcaemia and kidney outcomes informs appraisal; no daily calcium target of 2500 mg.
Iron	No UL established; safe level 40 mg/day; 2024 [18].	Total adult intake. Derived from supplemental-intake studies and background diet using black stools as conservative indicator, not toxicity itself. Above 40 mg does not establish increased risk or toxicity.
Vitamin C, potassium, sodium	No EFSA UL established in current summary [14].	No formal safety percentage. Sodium safe-and-adequate reference and potassium AI are different types, not UL substitutes.
Energy, protein, carbohydrate, fat, SFA, fibre, total/added sugars	No applicable numerical EFSA adult UL for these app variables [4–6,13,14].	Intake ranges and public-health maximum guidance must not be represented as ULs. No UL does not mean unlimited intake is safe.

One-day crossing

Allowed: “The recorded estimate is above the EFSA upper level for long-term daily intake. One recorded day does not establish harm.” Check units, nutrient form, portions, duplicates and supplement coverage. A crossing may be important to review, but is not a toxicity diagnosis. Conversely, a value below a UL cannot establish absence of toxicity, adequacy or safety for a susceptible person.

Show the safety value and estimate together, with source and exposure scope, rather than a green “safe” badge. If supplement dose or retinol fraction is unknown, state that total exposure cannot be compared reliably. A known food contribution above a compatible limit can still be shown as a partial arithmetic observation, without claiming a complete exposure or guaranteed lower bound. Therapeutic dosing is outside this contract.

Definitions and units that must not collapse

Concept	Required handling
Total vs added vs free sugars	Total includes naturally occurring and added mono/disaccharides. Added sugars concern addition during processing/preparation/table use. Free sugars additionally include sugars in honey, syrups, fruit juice and concentrates. Whole-fruit sugars are not automatically free. Store definitions and derivation separately. [13,22,28]
French sugar ceiling	The 100 g guidance excludes lactose and galactose. A total-sugars field alone cannot test it; total minus added is not lactose/galactose. Keep “not comparable” when component data are absent. [22]
WHO free-sugar context	WHO 2015: <10%E strong recommendation; <5%E conditional recommendation. This is risk-reduction guidance about free sugars, not an added-sugar UL. Do not invent 50 g added sugars from a 2000 kcal denominator. Use only an explicitly selected WHO context and computable free sugars. [28]
Sodium vs salt	Store sodium in mg. Salt equivalent (g) = sodium (mg) × 2.5 / 1000. Salt on a food label already represents sodium equivalent; do not add both. “Salt equivalent” is not a measured mass of table salt added. [1]
Vitamin A RE vs RAE	European RE and US RAE have different carotenoid factors. RE: 1 µg retinol = 1 µg RE; food β-carotene/6 and other relevant provitamin carotenoids/12 contribute RE. US RAE uses dietary β-carotene/12 and dietary α-carotene/β-cryptoxanthin/24; supplemental β-carotene has a different factor. [9,25]
Aggregate vitamin A	Do not relabel a USDA-style RAE aggregate as RE, or compare total RE/RAE with the preformed-A UL. Conversion needs individual forms and their origin. A nonspecific IU value also needs form/source metadata. Unknown basis blocks comparison.
Vitamin D forms	For D2/D3, 1 µg = 40 IU. EFSA 2023 uses a factor of 2.5 for calcidiol monohydrate for labelling and VDE. Preserve the chemical form and already-converted label basis to prevent double conversion. [16,26]
Units and carbohydrate basis	g, mg and µg require explicit scale conversion. Distinguish available carbohydrate from “total carbohydrate by difference” that may include fibre; do not count fibre twice. Record energy factors and food-composition version. Nutrient mass is not absorbed nutrient mass.

Added/free sugar values are often absent from composition tables; a blank does not mean zero. An estimated recipe allocation must be labelled estimated. Added/free sugars should ordinarily not exceed compatible total sugars; violations trigger a data check, not silent clamping. [D2]

Arithmetic, denominators and uncertainty

Percent of a scalar reference

Percentage = 100 × estimated compatible nutrient amount / named scalar reference. Match units, population, exposure and nutrient definition first. It expresses an arithmetic ratio, not “percentage of personal need met”. Do not compute percentage of an interval by choosing an arbitrary midpoint. UL and safe-level comparisons require a separate label and never a target-completion display.

Percentage of recorded energy

%E = 100 × estimated energy from that nutrient / estimated total dietary energy for the same scope. For ordinary available carbohydrate and protein use 4 kcal/g; fat/SFA 9 kcal/g. Handle polyols, fibre and ethanol with the declared factor scheme; total energy includes all energy sources. If available carbohydrate cannot be separated from polyols/fibre, withhold or disclose an explicitly approximate calculation. Zero energy makes %E undefined, not 0%. [1,4,5]

Observation / issue	Computation and presentation rule — proposed
Meal	Optional scalar label ratio and compositional %E. Do not judge a meal against a daily RI range or require a fixed fraction of daily nutrients.
One reviewed 24-hour interval	Use its estimate and stated coverage. “Below” = numerical estimate < reference; “above” = > reference, conditional on compatibility and uncertainty. No clinical label follows.
Several sampled days	Mean grams/day = sum / included days; show n, dates, spread and excluded days for each nutrient. Average compatible day/reference ratios equals ratio of mean to a constant reference. If reference eligibility changes, separate strata rather than mix denominators.
Repeated %energy	State whether using sum(nutrient energy)/sum(total energy), an energy-weighted share, or mean of daily shares. They differ. Recommended default: ratio of sums plus day-level range; never describe it as usual diet.
Missing data	Never divide by all days while treating missing nutrient days as zero. A mean from computable days is a selected subset, not a full-period mean; name the subset and potential selection bias.
Uncertainty / thresholds	Preserve amount ranges and proxies. If a range straddles a boundary, say “may be below or above”. Do not generate statistical confidence limits without an error model. Suppress categorical threshold labels near a boundary when uncertainty is unresolved.
Rounding	Compare compatible unrounded values; round only displayed amounts/percentages. A shown 100% does not establish equality or certainty. No universal ±5% tolerance; any UI deadband is an explicit UX rule, not a biological threshold.

Coverage gates and the interpretation contract

This extends the proposed REC01 ledger; field names are a design proposal. Missingness is multidimensional. A confirmed intake interval can still lack potassium data, and accurate potassium data for one day do not make that day representative. [D1,D2]

Contract field / state	Minimum rule
observation_scope	meal / recorded_interval / sampled_days; start/end/time zone and actual duration; included record IDs and revisions. A 23/25-hour calendar date is not silently a 24-hour intake.
intake_coverage	unreviewed / user_confirmed_as_recalled / partial / unsure, tied to ledger revision; fasting explicitly confirmed rather than inferred from no entries.
amount_state	known / estimated / range / unknown; original quantity/unit, edible basis, conversions and assumptions. Unknown amount differs from food not consumed.
composition_state, per nutrient	available / estimated / trace / confirmed_zero / unavailable; matched food, proxy or unmatched; database version and basis. Unknown composition differs from no reported intake.
exposure_scope	foods_drinks / supplements / combined; supplement review none_recalled / taken / unknown / not_reported, dose/form completeness. Maintain separate subtotals.
sampling_context	Dates, non-consecutive/consecutive pattern, weekday/weekend/season and atypical-day notes if known. representativeness = not_established by default; no day-count unlock.
profile_eligibility	Known eligible / missing_fields / excluded / unresolved_category, plus relevant field dates. Missing demographics must not trigger hidden defaults.
reference_id	Authority, framework, type, nutrient definition/form, numeric value or range, unit, day basis, eligible group, endpoint, exposure scope, source/version and status.
comparison_status	descriptive_comparable / estimated_comparable / partial_subtotal_only / incompatible / unavailable / profile_needed. A percentage is published only with its status and scope.
calculation_audit	Unrounded inputs, conversions, aggregation rule, nutrient-specific denominator, exclusions, uncertainty description, engine version and output revision. Later edits invalidate old outputs/review as appropriate.

Coverage display

Use three separate statements: “You reviewed this interval”; “Calcium data are available for these entered foods; one item has an unknown amount”; “These dates have not been shown to represent your usual diet.” Do not compress them into a single “complete” badge.

A numerical coverage percentage requires an explicit denominator (items, edible mass or estimated energy) and a calculable denominator. Item coverage is not nutrient coverage. Unknown quantities may prevent mass/energy coverage. Never interpret “80% of entries matched” as “80% of calcium measured”. Partial computed subtotals are not automatically lower bounds because matching and portion estimates can overestimate.

Source, version and unit provenance

Reference record	Required provenance / release rule
Identity	Stable reference_id + authority (EU law / EFSA / ANSES / NASEM / WHO). Exact type: label_RI, label_NRV, AR, PRI, AI, RI_range, UL, safe_level or risk_guidance. “Recommended” alone is insufficient.
Source version	Title, DOI/institutional URL, publication/adoption/amendment date, table/page or section, retrieved date, archived document checksum if available. Separate source date from registry revision.
Population	Source-defined age bands, sex/physiological categories, pregnancy/lactation rules and exceptions. State general healthy population; do not extend to clinical groups.
Definition / unit	Nutrient identity, RE/RAE/VDE or chemical form, g/mg/μg/kJ/kcal/%E/g per kg, 24-hour or long-term basis, denominator and conversion formula.
Endpoint / use	Label comparability, balance/store maintenance, functional endpoint, risk reduction or adverse effects. Record original uncertainty and whether a value is a scalar, interval or qualitative recommendation.
Exposure scope	Total dietary sources or specific fraction. For preformed vitamin A: preformed forms only. Food-only output cannot silently become supplement-inclusive total exposure.
Verification status	verified_original / indexed_original_only / pending / superseded. Indexed-only French values remain educational candidates, not production-activated thresholds until full-source review.
Policy bundle	EU_label_2025-04-01; EFSA_DRV_nutrient_versions; ANSES_FR_verified_version; EFSA_safety_2025-08. Keep visible bundle/type labels and separate panels. No silent cross-framework repair.
Change management	Two-person numerical/unit verification is a proposed release check. Source updates create a new registry revision; preserve previous historical outputs and allow clearly labelled recalculation. Do not pretend a cached source is current without a dated check.

Examples of errors this prevents

A 2021 French micronutrient summary may display older safety values, while EFSA updated vitamin A and iron in 2024. Store the original French recommendation and the explicitly separate current EFSA safety source. An archived PNNS optimization constraint may differ from a current RNP. The 2016 sugar opinion and the updated sugar information page must retain the same sugar exclusion definition before comparison. [14–22]

The website URL alone is not a version. Conversely, a publication year alone does not make a reference obsolete: a 2010 or 2015 EFSA DRV can remain current unless revised. Currentness was checked against the EFSA catalogue and safety summary on the search date.

Allowed and prohibited English wording

Situation	Allowed example	Prohibit
Meal / scalar label ratio	"This meal contains an estimated 12 g protein: 24% of the European adult food-label reference."	"This meal meets 24% of your protein needs."
Reviewed day	"For the recorded 24 hours on 10 October, estimated calcium intake was 700 mg, below the EFSA PRI of 950 mg for adults aged 25 and over."	"You are calcium deficient." / "Your diet is inadequate."
AI / AS	"The recorded fibre estimate was below the EFSA adequate intake. This comparison does not assess your nutritional status."	"Fibre deficit: 8 g." / "Below AI proves inadequate intake."
Sampled days	"Across 4 included days, mean estimated intake was 910 mg calcium/day. These dates do not establish your usual intake."	"Four days prove your usual diet is adequate."
Partial composition	"Potassium subtotal from calculable entries: about 1800 mg; one food lacks potassium data."	"Daily potassium: 1800 mg, complete." / unavailable = 0
Unknown profile	"An age band is needed to select a scientific calcium reference. Standard adult label context remains available."	Hidden default age, sex, weight or menstrual category.
UL crossing	"The recorded vitamin D estimate is above the EFSA upper level for long-term daily intake. One day does not establish harm."	"Vitamin D toxicity detected." / "Overdose diagnosed."
Below UL	"The estimate is numerically below the named upper level; this is not a personal safety assessment."	"Safe intake." / "No toxicity or deficiency."
Iron safe level	"The estimate is above EFSA's 40 mg/day safe level. EFSA did not establish an iron UL."	"Iron UL exceeded." / "Toxic above 40 mg."
Uncertain threshold	"The estimated range spans the reference; a below/above classification is uncertain."	Definite pass/fail from a single uncertain point estimate.
Energy	"Estimated recorded energy: 1700 kcal; 85% of the standard adult label reference."	"You need 300 kcal more today."
Sugars / missing definition	"Added sugars were not estimated for all entries; no complete added-sugar total is available."	"Added sugar allowance remaining: 20 g."

Always adapt "day" to the actual interval, and show foods-only versus combined exposure. Short wording must retain the reference family and recorded scope; details may explain population and limitations. None of these examples establishes absence of deficiency.

Colours, targets and composite scores

Feature	Assessment and proposed disposition
Traffic-light nutrient bands	DEFER health-colour classification. A red value below PRI or AI suggests a biological problem; green at 100% suggests adequacy. There is no validated universal banding rule across these reference types or observation scopes. Neutral numerical comparisons are the design default.
Direction labels	ADOPT arithmetic labels only with named source, unit, eligibility, coverage and uncertainty. Avoid good/bad, optimal, balanced, healthy, safe or deficient. A numerical “above” relative to a PRI is different from “above” relative to a UL.
“Deficit” / “excess”	PROHIBIT as personal nutritional or clinical outputs here. “Difference from the named reference” is arithmetic but still easily read as a need; prefer amount and ratio rather than prominently displaying the difference.
Remaining-to-target amount	PROHIBIT automatically calculated “still need”, “remaining allowance” or “eat X next”. Label RIs, AIs and long-term ULs do not define a same-day prescription, and uncertainty makes subtraction misleading.
Composite reference score	DEFER. Combining ratios gives unlike endpoints a common scale, can reward sugar or UL attainment, double-count correlated variables, penalize missing data and conceal incompatible populations/units. No weights or clinical interpretation are justified by this review.
Nutrikom Index	OUT OF SCOPE. This report neither validates nor invalidates its algorithm. Do not use REF01 as evidence that its score establishes adequacy, deficiency or toxicity.
Attention to missingness	ADOPT clear text and an accessible non-health status icon for incomplete/unavailable estimates. Test whether users distinguish intake coverage, composition coverage and representativeness.
Safety attention message	INVESTIGATE a restrained separate review prompt for a compatible one-day UL crossing. It should identify the estimate/source and uncertainty, not diagnose harm or give treatment/supplement instructions.

Evidence versus UX hypotheses

Evidence supports the distinctions among reference types, the dependence on population/units, the limits of single-day intake and the uncertainty of self-report. It does not establish that these exact screens, labels, neutral colours or disclosure locations produce correct consumer understanding. [1-28,D1,D2]

Proposed user testing: ask adults to explain whether a below-AI result proves deficiency, whether 100% proves adequacy, whether a meal percentage is a next-food instruction, whether unknown means zero, and whether a one-day UL crossing means toxicity. Test multilingual access, numerical literacy and assistive technology. Predefine comprehension errors and revise the interface; this is a UX study proposal, not validation already performed.

Verification cases — numerical and source checks

Case	Expected result
V01. Meal: 12 g protein	EU label mode: 24% of 50 g with meal wording; no “24% of needs” or 38 g remaining.
V02. Energy: 2000 kcal / 8368 kJ	Using paired EU denominators: 100% in kcal, about 99.6% in kJ. Do not silently replace the 8400 kJ denominator. Explain rounding if both shown.
V03. Day: vitamin D 5 µg	EU label: 100%; eligible EFSA scientific AI: about 33%. Separate modes and denominators; neither result proves status.
V04. Fibre 17 g	No EU label percentage. Optional EFSA AI 25: 68%; verified France AS 30: about 57%. Below-AI wording carries no deficiency claim.
V05. Sodium 2400 mg	Salt equivalent 6.0 g = 100% label salt RI. Separate EFSA 2.0 g safe/adequate value is not a sodium UL or personal allowance.
V06. RAE-only imported vitamin A	Show imported amount with RAE basis. Block European RE percentage and preformed-A UL comparison until form-compatible data exist.
V07. Vitamin A total 3500 µg RE, retinol unknown	No automatic UL crossing classification. Total vitamin A includes carotenoid activity; require preformed fraction.
V08. Vitamin D product: 4000 IU D3	100 µg D3 before adding food; verify actual dose consumed. A further 5 µg food gives 105 µg total estimate and a one-day arithmetic crossing, not toxicity.
V09. Calcidiol 10 µg, label VDE25 µg	Use already stated VDE once; do not multiply it again by 2.5 or use the D3 IU conversion on chemical mass.
V10. Iron combined estimate 42 mg	Above EFSA safe level 40, not above an EFSA UL. If US mode selected explicitly, compare to US adult UL 45 with its own provenance; no silent substitute.
V11. Total sugars 90 g; lactose unknown	EU label total-sugar ratio 100%. French excluding-lactose/galactose ceiling comparison unavailable; added/free sugars remain distinct.
V12. Added 10 g; fruit juice free sugars20 g	Keep added/free totals separate. No EFSA numerical added-sugar target. WHO comparison requires complete free-sugar estimate and total energy.
V13. Day SFA energy 12.2%, France mode	If verified and uncertainty resolved, above 12%E guidance, not toxicity. Cannot test the 8%E fatty-acid subset from total SFA.
V14. US source under EU header	Registry validation fails. Values/types/units from another family cannot fill missing rows without explicitly changing the displayed framework.

Verification cases — eligibility and missingness

Case	Expected result
V15. Calcium 900 mg; age unknown	No personalized EFSA/ANSES percentage. Generic EU label context may be shown; request age band only for scientific view.
V16. Calcium 900 mg; age 24 →25	Source-selected PRI changes 1000 →950. Preserve date-specific eligibility and revisions; do not average mixed-reference ratios as a single fixed denominator.
V17. Protein scientific ratio; weight absent	No default weight or gram requirement. Show 0.83 g/kg as educational reference and recorded grams separately.
V18. Iron: adult female; loss category unclear	France-specific RNP selection unresolved. Do not infer 11/16 from sex or symptoms; show contextual alternatives without assigning personal need.
V19. Pregnancy, renal disease or therapeutic dose	Adult generic label context remains explicitly generic; personal scientific/safety classification outside v1. No supplement prescription.
V20. One food potassium unavailable	Reviewed interval can retain intake confirmation. Potassium composition remains partial; no zero imputation or complete-day potassium percentage.
V21. Confirmed non-consumption vs blank ledger	Confirmed fasting can produce zero recorded nutrient amount for the defined period; blank/unreviewed ledger is unreported intake. Neither establishes habitual inadequacy.
V22. Food eaten; amount unknown	Keep consumed item. Quantitative contribution unavailable; do not remove it and call the interval complete quantitatively.
V23. Vitamin D food known; supplement dose unknown	Foods-only estimate allowed. Combined safety comparison incomplete; no “below UL = safe” statement.
V24. Calcium estimate 850–1050; PRI 950	Display range spanning reference, not a definite below/above state. No invented confidence probability.
V25. Point estimate 949; PRI 950; uncertain portion	Retain unrounded arithmetic internally; avoid a categorical near-threshold badge or claims from the 1 mg difference.
V26. Five dates, calcium calculable on three	Show selected-subset mean with $n=3/5$, dates and exclusions. Do not divide known sum by 5, or imply sample representativeness.
V27. Two day shares: 20% at 1000 kcal, 40% at 3000 kcal	Mean daily share 30%; ratio of sums 35%. State method; recommended repeated-day default 35% plus day-level distribution, not usual diet.
V28. Zero energy, alcohol or polyols	True zero makes %E undefined. Alcohol remains in energy denominator; polyol/carbohydrate factors must match definitions.
V29. Midnight / DST / duplicate / later edit	Use actual interval membership; 23/25-hour dates are not auto-normalized to 24 h. Deduplicate confirmed entries; edits recompute outputs and invalidate stale review where needed.
V30. Fish/supplements only on some days	Retain episodic peaks and zero-consumption days when genuinely confirmed. Do not flatten variability into personal adequacy or average away a safety-panel crossing.

Reproducible search and access limitations

Search date: 11 October 2026. Targeted reference-selection review, not a registered systematic review of trials. English and French; original authorities prioritized. No publication-date restriction for foundational reference derivation; explicit currentness checks for revisions, legal consolidation and safety values.

Route	Reproducible queries / procedure
Index	Exact query: “dietary reference values EFSA adult nutrient intake average requirement adequate intake upper level interpretation sugars iron vitamin A”. Ten returned records screened for relevance; fetched EFSA principles 2010 and sodium 2019 records before use. Indexing assists discovery; numeric defaults follow original authorities.
Authority web searches	“site.efsa.europa.eu dietary reference values summary report adults 2017 2019 2025 tolerable upper intake vitamin D iron 2024”; “site.anses.fr références nutritionnelles vitamines minéraux adultes 2021 2025 protéines glucides sucres”; “site.eur-lex.europa.eu 1169/2011 annex XIII reference intakes 2000 kcal vitamin A800 vitamin D5”.
Targeted follow-ups	“site.efsa.europa.eu 2024 iron safe level 40”; “site.efsa.europa.eu 2024 vitamin A3000 upper”; ANSES domain queries for “110 vitamine C adultes”, “pertes menstruelles11 16”, “fibres30 g/j”, “saturés12 8 énergétique”, “glucides40–55”.
Original-source checks	Open EFSA nutrient-specific opinions by DOI, DRV catalogue and UL summary; EU consolidated law and annexes; ANSES reports/current pages; US DRI institutional sources and NIH units; WHO free-sugar guideline and official explanatory statement. Read relevant abstract, table, summary or targeted full-text section and record access level below.
Selection / exclusion	Retain primary institutional reference derivations, legal text and framework guidance. Exclude commercial calculators, blogs and secondary nutrition tables as numeric authorities. Prior DAY01/REC01 reports supply boundaries, not primary evidence for a new reference value.

What was and was not accessible

EU legal annexes and EFSA safety summary were directly accessible. EFSA opinions exposed original abstracts; the 2022 sugar and 2023/2024 safety opinions also exposed full-text targeted sections. ANSES primary reports and current summary pages often returned 403: original indexed excerpts were read, not the complete reports. The potassium VigilAnses PDF was accessible. French table qualifiers therefore require independent full-document verification before registry activation.

The US vitamin A/D NIH pages and NASEM assessment book were accessible; the iron NIH page failed, so the US45 mg comparator is corroborated in EFSA’s2024 original comparison table rather than claimed as a newly read NIH iron page. Search-engine crawl dates are not publication dates. No author contact, new clinical study, pooled effect estimate or exhaustive population survey was performed.

Bibliography — European reference derivations

Links below identify original authorities; NIH summaries are institutional explanations of original US DRIs. E = original abstract/metadata and targeted sections; F = directly accessible full source; I = indexed original excerpts only. The matrix states adult population, methods/endpoints, intended use and important limitations. Retrieval date: 11 October 2026.

[1] European Parliament/Council. Regulation (EU) 1169/2011, consolidated 1 April 2025, Annexes I, XIII, XIV.

<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:02011R1169-20250401>

F. Legal labelling denominators/definitions, not individualized clinical requirements.

[2] EFSA NDA(2010). Principles for deriving and applying Dietary Reference Values.

<https://doi.org/10.2903/j.efsa.2010.1458>

E. Healthy groups; framework for requirements, interpretation and population versus individual use.

[3] EFSA NDA(2013). Dietary Reference Values for energy.

<https://doi.org/10.2903/j.efsa.2013.3005>

E. Factorial expenditure models by age/sex/PAL; reference groups do not measure an app user's energy need.

[4] EFSA NDA(2010). Dietary Reference Values for carbohydrates and dietary fibre.

<https://doi.org/10.2903/j.efsa.2010.1462>

E. Adult carbohydrate interval and fibre laxation-based AI; AI is not a deficiency threshold.

[5] EFSA NDA(2010). Dietary Reference Values for fats.

<https://doi.org/10.2903/j.efsa.2010.1461>

E. Adult total-fat interval and qualitative SFA advice; no numerical total-SFA UL.

[6] EFSA NDA(2012). Dietary Reference Values for protein.

<https://doi.org/10.2903/j.efsa.2012.2557>

E. Nitrogen-balance evidence, adult AR/PRI per kg; weighing and balance-study uncertainty, no precise individual requirement.

[7] EFSA NDA(2019). Dietary Reference Values for sodium.

<https://doi.org/10.2903/j.efsa.2019.5778>

E. Balance and cardiovascular evidence; safe/adequate 2 g value without AR/PRI derivation.

[8] EFSA NDA(2016). Dietary Reference Values for potassium.

<https://doi.org/10.2903/j.efsa.2016.4592>

E. Blood pressure/stroke evidence, adult AI 3500 mg; no AR or UL derived.

[9] EFSA NDA(2015). Dietary Reference Values for vitamin A.

<https://doi.org/10.2903/j.efsa.2015.4028>

E. Factorial retinol-store maintenance; sex-specific reference bodies and conversion assumptions.

Bibliography — micronutrients and current safety

[10] EFSA NDA(2013). Dietary Reference Values for vitamin C.

<https://doi.org/10.2903/j.efsa.2013.3418>

E. Metabolic losses/body-pool endpoint; women extrapolated by reference weight; insufficient health-outcome data for derivation.

[11] EFSA NDA(2016). Dietary Reference Values for vitamin D.

<https://doi.org/10.2903/j.efsa.2016.4547>

E. Meta-regression of 25(OH)D under minimal skin synthesis; AI cannot diagnose vitamin D status.

[12a] EFSA NDA(2015). Dietary Reference Values for calcium.

<https://doi.org/10.2903/j.efsa.2015.4101>

E. North-American adult balance studies plus dermal losses; young-adult accretion, adaptation and study extrapolation limit precision.

[12b] EFSA NDA(2015). Dietary Reference Values for iron.

<https://doi.org/10.2903/j.efsa.2015.4254>

E. Factorial losses and assumed absorption; skewed menstrual requirements make simple AR cut-point logic problematic.

[13] EFSA NDA(2022; amended 31 March 2022). Tolerable upper intake level for dietary sugars.

<https://doi.org/10.2903/j.efsa.2022.7074>

F targeted summary/sections. Systematic evidence appraisal: 49 randomized trials and 66 cohorts; no UL/safe level. Trial and isocaloric cohort findings differ; limited low-intake evidence and no clear added/free-sugar effect comparison.

[14] EFSA. Overview of tolerable upper intake levels, version 11, August 2025; current DRV catalogue.

https://www.efsa.europa.eu/sites/default/files/2023-11/ul_summary_tables-version-8.pdf

F summary. Actual document version 11 despite legacy URL. Includes safe-level distinction and nutrient/source-specific exceptions.

[EFSA current reference catalogue](#)

[15] EFSA NDA(2024). UL for preformed vitamin A and β -carotene.

<https://doi.org/10.2903/j.efsa.2024.8814>

F targeted abstract/sections. Adult preformed-A UL; carotenoid activity is not the same exposure. No β -carotene UL does not establish unrestricted safety.

[16] EFSA NDA(2023). UL for vitamin D and calcidiol monohydrate conversion.

<https://doi.org/10.2903/j.efsa.2023.8145>

F targeted abstract/sections. Human supplementation trials; persistent hypercalciuria, uncertainty factor 2.5, 100 μ g VDE/day. Chronic endpoint, not acute toxicity diagnosis.

[17] EFSA NDA(2012). UL for calcium.

<https://doi.org/10.2903/j.efsa.2012.2814>

E + current summary. Adult 2500 mg/day total exposure; general-population limit is not individualized safety.

[18] EFSA NDA(2024). UL appraisal for iron.

<https://doi.org/10.2903/j.efsa.2024.8819>

F targeted abstract/sections. No UL derivable; conservative non-adverse black-stool indicator supports 40 mg safe level. Above it cannot quantify adverse-effect risk.

Bibliography — French authorities and alternatives

[19] ANSES(2021). Références nutritionnelles en vitamines et minéraux,2018-SA-0238; public summary updated21 February 2025.

<https://www.anses.fr/fr/system/files/NUT2018SA0238Ra.pdf>

I; complete PDF/page blocked. Adult reference tables; source/category qualifiers must be independently verified. Not a new trial.

Current French summary; English2021 summary

[20] ANSES(2016). Actualisation des repères du PNNS — synthèse,2012-SA-0103.

<https://www.anses.fr/fr/system/files/NUT2012SA0103Ra-1.pdf>

I original Table 4 andTable 28 excerpts. Macronutrient public-health ranges; optimization constraints are not individualized requirements or safety thresholds. Check full qualifications.

[21] ANSES(2016). Références nutritionnelles — fibres and macronutrient contributions.

<https://www.anses.fr/fr/system/files/NUT2012SA0103Ra-2.pdf>

I original fibre conclusion p27/37 and macro excerpts. Fibre AS 30 g based on chronic-disease evidence, versus EFSA25 g laxation AI.

[22] ANSES(2016). Actualisation des repères du PNNS — sucres,2012-SA-0186.

<https://www.anses.fr/fr/system/files/NUT2012SA0186Ra.pdf>

I original report and current explanatory-page excerpts.100 g ceiling excludes lactose/galactose; not a free/added-sugar UL.

ANSES sugar information,2024 update

[23] ANSES(2020). Hyperkalaemia and potassium guidance, VigilAnses 10.

https://vigilanses.anses.fr/sites/default/files/VigilAnsesN10_April2020_Hyperkaliemia.pdf

F. Documents adult 3500 mg AI and absence of UL; susceptible clinical groups need separate management.

[24] Institute of Medicine(2000). Dietary Reference Intakes: Applications in Dietary Assessment.

<https://doi.org/10.17226/9956>

Institutional book landing/overview accessible; assessment guidance, not consumer-app validation. PMID 25057725. Statistical intake/requirement uncertainty and individual versus group uses.

[25] NIH ODS. Vitamin A and Carotenoids — Health Professional Fact Sheet.

<https://ods.od.nih.gov/factsheets/VitaminA-HealthProfessional/>

F institutional synthesis of original US DRI. Adult RDA900/700 µg RAE; units/carotenoid factors differ from European RE.

[26] NIH ODS. Vitamin D — Health Professional Fact Sheet.

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

F institutional synthesis of US DRI. Adult RDA 15 µg age 19-70,20 µg age>70; contrasts with EFSA adult AI 15. D2/D3 IU conversion.

[27] Institute of Medicine(2001). DRIs for vitamin A, vitamin K, arsenic, boron, chromium, copper, iodine, iron, manganese, molybdenum, nickel, silicon, vanadium and zinc.

<https://doi.org/10.17226/10026>

Original US derivation cited through EFSA 2024 iron opinion Table 1; not newly read in full. US adult iron UL 45 mg differs in type and derivation from EFSA safe level 40.

Bibliography, disagreements and final disposition

[28] WHO(2015). Guideline: Sugars intake for adults and children.

<https://www.who.int/publications/i/item/9789241549028>

Institutional publication page and official WHO explanatory statement accessible; original recommendations chapter indexed on NCBI Bookshelf. Free-sugar guidance for unhealthy weight gain/dental caries; conditional 5%E recommendation is not an added-sugar UL.

WHO original recommendations and remarks — indexed original chapter; direct retrieval limited.

[D1] DAY01 — Dietary observation evidence and Nutrikom contract, 11 October 2026, v1.0. **[D2]** REC01 — Dietary collection method and Nutrikom contract, 11 October 2026, v1.0. User-provided complete PDFs read for continuity. Prior project syntheses, not primary authority definitions or clinical validation.

What the disagreements change

Difference	Design implication
Food labels versus requirements	A label percentage can be computed without a profile; it cannot prove the person's needs are met. The vitamin D difference is particularly clear.
France versus EFSA	Fat/carbohydrate intervals, fibre endpoints, vitamin C values and iron menstrual categories differ. Display the selected framework and use its eligible group; do not harmonize away disagreements.
US versus Europe	Similar terminology does not ensure equivalent values, units or adverse-effect thresholds. RAE differs from RE; US iron UL is not EFSA's safe level.
Sugar evidence	Different definitions and endpoints explain why total-sugar label context, French excluded-sugar ceiling, WHO free-sugar guidance and EFSA qualitative advice cannot form one interchangeable target.
Individual versus population	Authority references are tools within assessment methods, not a diagnostic label from one log. Group distribution methods require usual-intake modelling and assumptions; several sampled days remain descriptive here.

Disposition by work item

Disposition	Action
ADOPT FOR DESIGN	Separate views/types; named source/value/unit; profile-dependent eligibility; neutral scope-limited wording; nutrient-specific denominators; explicit unavailable states; food/supplement separation; immutable provenance and revision checks.
INVESTIGATE FURTHER	Obtain and independently verify full ANSES tables/qualifiers; audit RE/RAE/VDE mappings and composition fields; test comprehension, accessibility and near-threshold/safety messages. Validate quantitative error separately from UI understanding.
DEFER	Personal adequacy/deficiency/toxicity/absence-of-deficiency conclusions, remaining-to-target prescriptions, supplement recommendations, generic health-colour bands, personal energy requirements and composite reference/Nutrikom Index validation.

This contract is reviewable design guidance. The reference-selection matrix is not a claim that Nutrikom's food matches, portions, composition data or proposed ledger are clinically validated.