

From Food Ingredient to Claim



Brain Boost Challenge

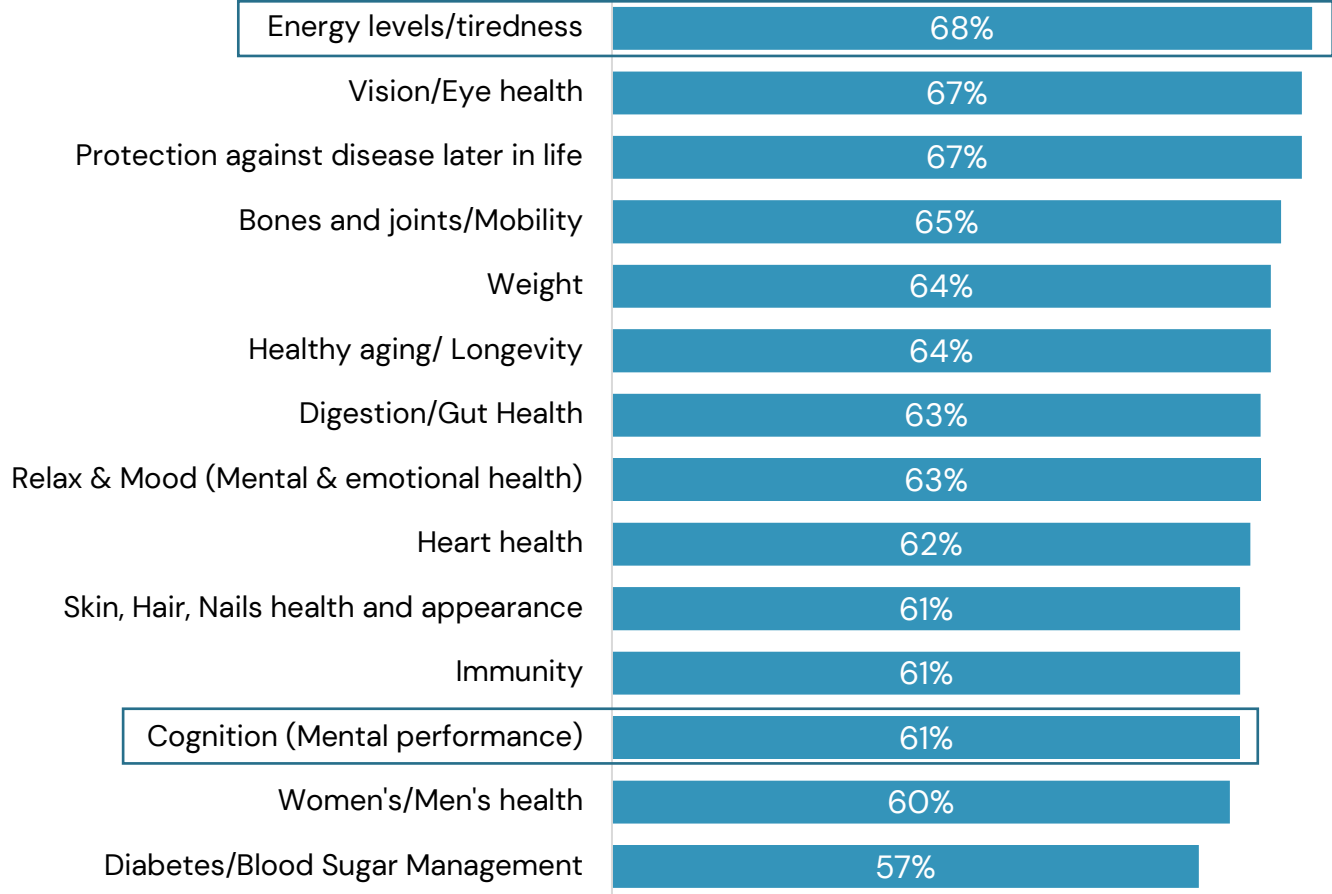
By: Maaike Bruins, Dir Nutrition Science

Agenda

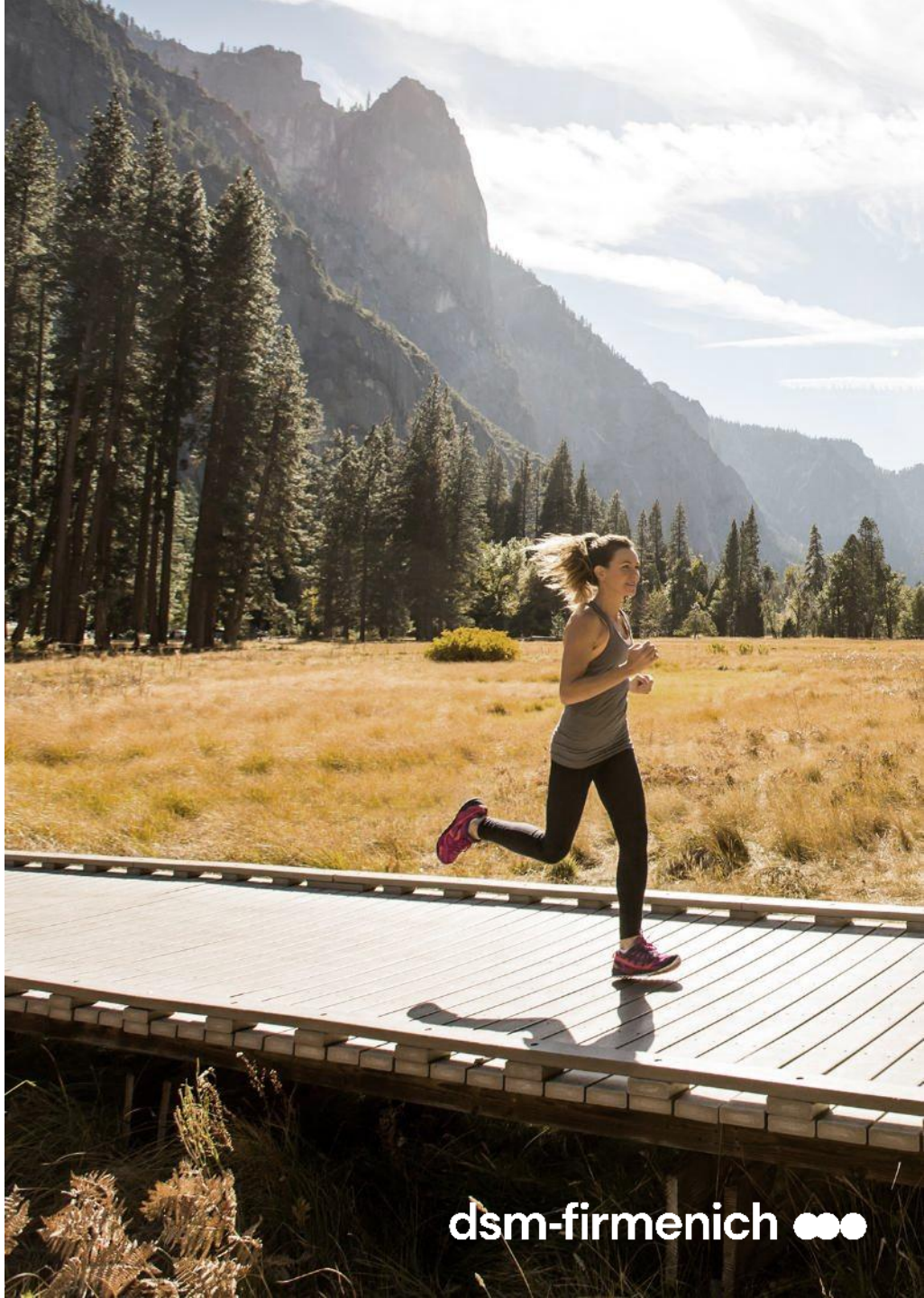
- 01 Consumer health worries
- 02 Definition of mental health
- 03 Brain nutrient needs
- 04 Claims
- 05 Impact consumer choice
- 06 Required evidence
- 07 Market Examples
- 08 Working groups

Energy is on top of mind amongst consumers

% of Global consumers that worry and worry a lot, 2025



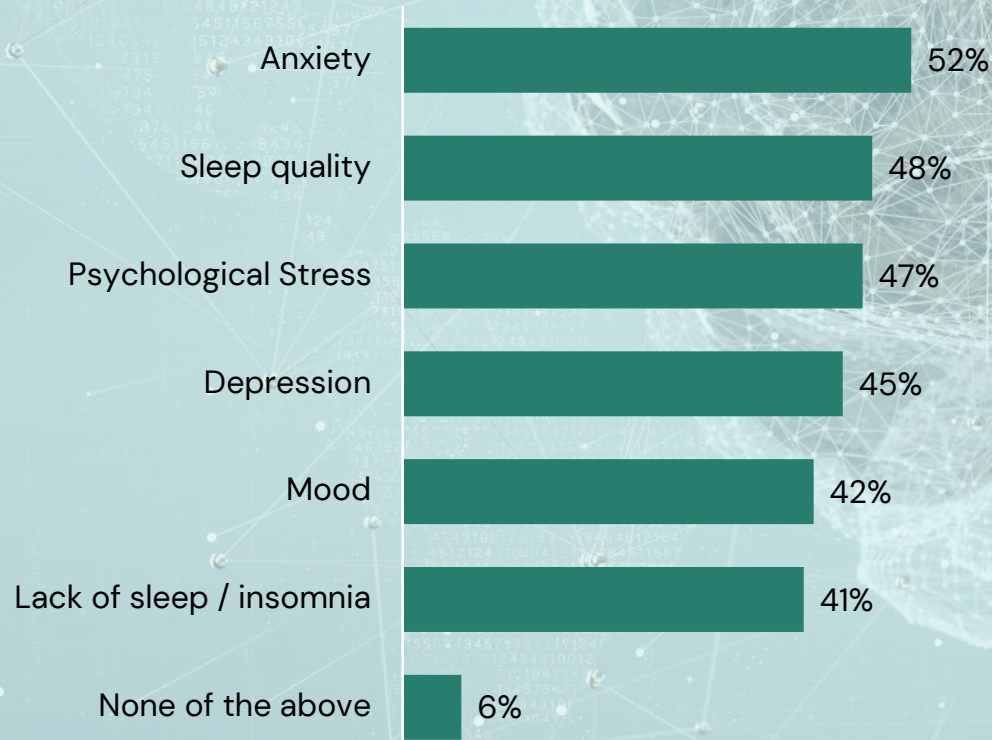
Source: dsm-firmenich global health concerns study, 2025. 20'250 consumers in 25 Countries



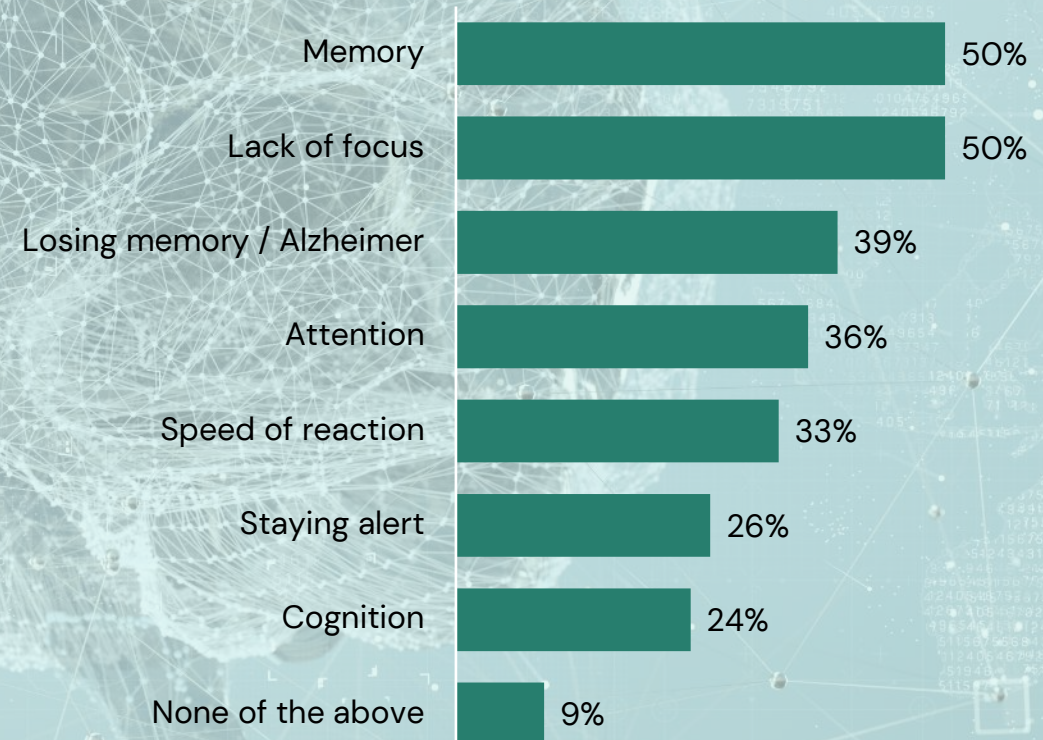


What consumers worry about

Consumers who mentioned emotional health as a concern % worries (a lot)



Consumers who mentioned cognition as a concern % worries (a lot)




Source: dsm-firmenich global health concerns study, 2025

Symptoms people recognize

Do you have these symptoms in your daily life?


Reduced attention & focus
Reading a page but not remembering any of it



Fatigue and headache
Feeling drained after a long day




Increased stress
Feeling overwhelmed by small tasks




Grumpiness
Feeling unusually irritable for no clear reason



Memory (short term)
Forgetting where you just put your keys



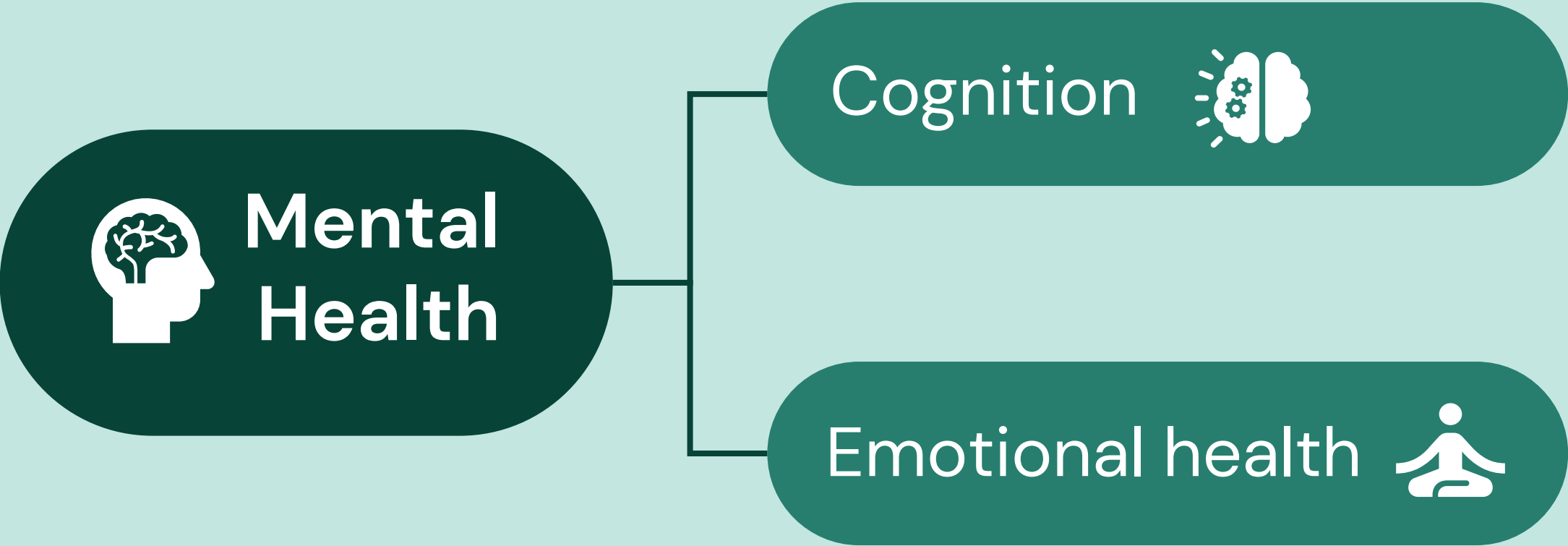
Slower reaction
It takes a few extra secs to hit the brakes upon red light



More errors
Forgetting to attach a document

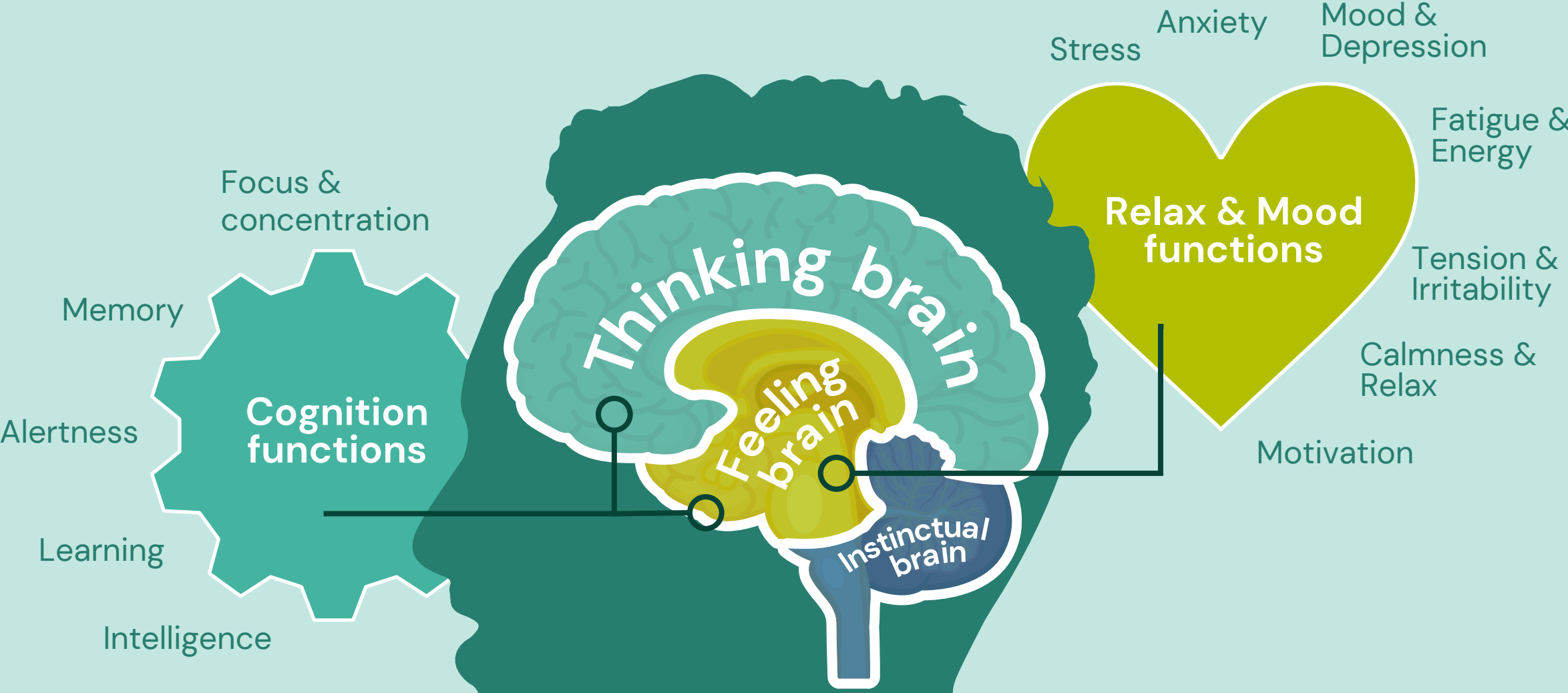


Definition of mental health



How the brain works

internal



Healthy diet supporting mental health



Proteins

Amino acids for neurotransmitters



Fats

~50–60% of the brain's dry weight. Structural components of neurons



Carbohydrates

Direct energy providing



Microbial bioactives

Fibers
Pre- Pro- Postbiotics
Gut-brain axis



Micronutrients (e.g. vitamin, minerals)

Support and Protect body development and functioning.
Support generation of energy



Plant-Derived actives

Antioxidant, anti-inflammatory, metabolic effects
Can modulate mental energy



Water

Key component in Brain: ~75%
Brain cell function

But a balanced diet is not always possible

internal



	Denmark n= 2025	Czech Republic n= 1869	Italy n= 2831	France n= 2624
Vitamin D	97%	99%	99%	99%
Vitamin E	95%	56%	53%	66%
Potassium	69%	96%	81%	82%
Magnesium	54%	75%	80%	77%
Vitamin C	50%	65%	38%	56%
Vitamin B12	45%	64%	48%	50%
Folate	41%	76%	23%	49%
Calcium	30%	69%	57%	38%
Vitamin A	23%	62%	34%	23%
Vitamin B2	20%	65%	16%	8%
Zinc	10%	52%	3%	9%
Iron	8%	4%	2%	2%
Vitamin B1	3%	2%	53%	0%

How do consumers address their mental health

internal



**Through
exercise**



**Through the
diet**



**Through
supplements**



**Though
consultation**

**Does not
take action**

Cognition

29%

21%

15%

16%

38%

Energy levels

35%

29%

23%

14%

28%

Different types of “nutrition”-related information on pack

Nutrition labels

- Nutrition profile: Traffic lights, warning labels, health symbols



Health claims Nutrition claims

- Supports normal immune function..
- Low, high in, source of “nutrient X”



Nutrition declaration

- Energy, carb, fat, protein, vitamins, minerals, % of daily amount



Ingredient list

- Ingredient naming & declaration of additives



Other label “claims”

- Non-GMO
- Free-from
- Sustainable
- Plant-based

Impacts of health claims on consumers' food choices


EU claims impact analysis

- Impact of nutrition & health claims on purchase intent: Mixed
- Claim understanding varies by education, SES and health motivation
- Short claims, risk reduction & positive nutrition claims most appealing
- Taste remains the primary driver

Review of studies

- Mainly from Europe (17 studies) and the USA (7 studies)
- Nutrition or health claims Front of Pack significantly boost purchase intent by **~1.75-fold**

US/EU Consumer claims insights

- >1,500 consumers across the US and Europe
-  Most attractive health benefits
 -  Low sugar / sugar-free
 -  **Energy support**
 -  Weight management
-  Most popular ingredient cues
 -  Vitamins
 -  Minerals
 -  Fiber
 -  Probiotics

1. European Parliament, Health claims made on foods [Report European Parliament EPRS_STU\(2023\)747456_EN.pdf \(europa.eu\)](#)
2. Kaur Int J Behav Nutr Physical Activity 2017
3. [Health claims drive consumers' food and beverage purchasing decisions, survey reveals](#)

Difference between regions: health function claim examples with omega-3



DHA omega-3 contributes to maintenance of normal brain function

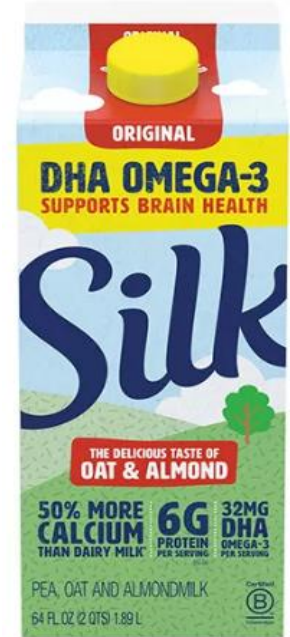


EU function health claims

- Approved claims: [EU register](#)
- New claims approval: dossier
- Evidence from human studies



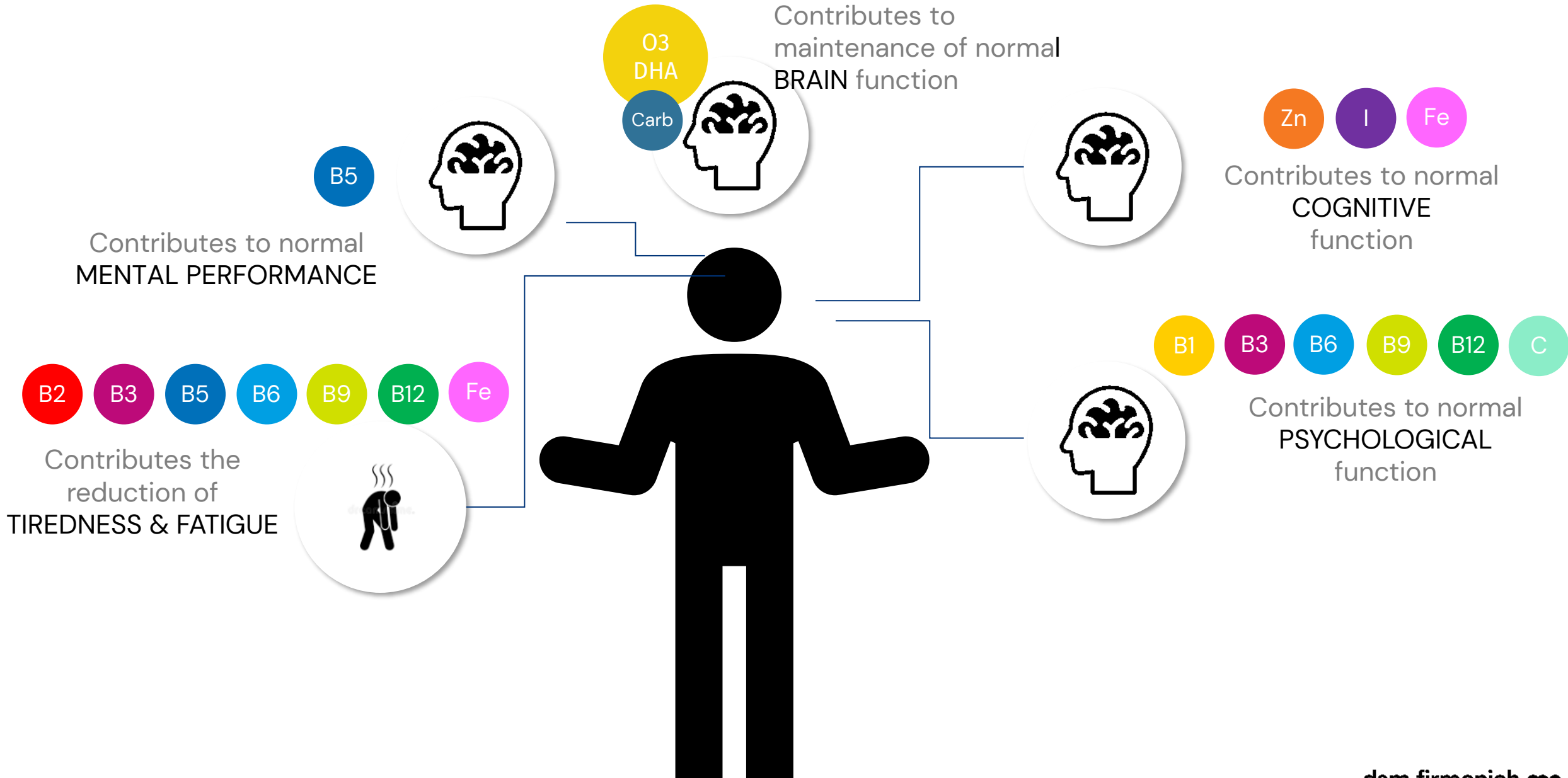
DHA omega-3 supports brain health



US structure/function claims

- Not pre-approved by FDA
- Evidence from human studies
- Truthful and not misleading

Examples of evidence-based ingredients translating into EU claims



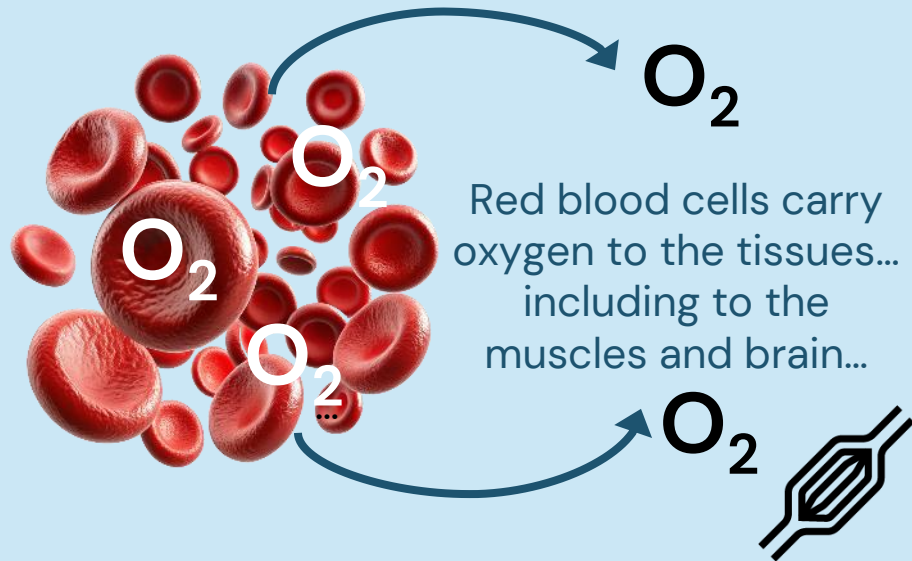
B-vitamins and iron support energy



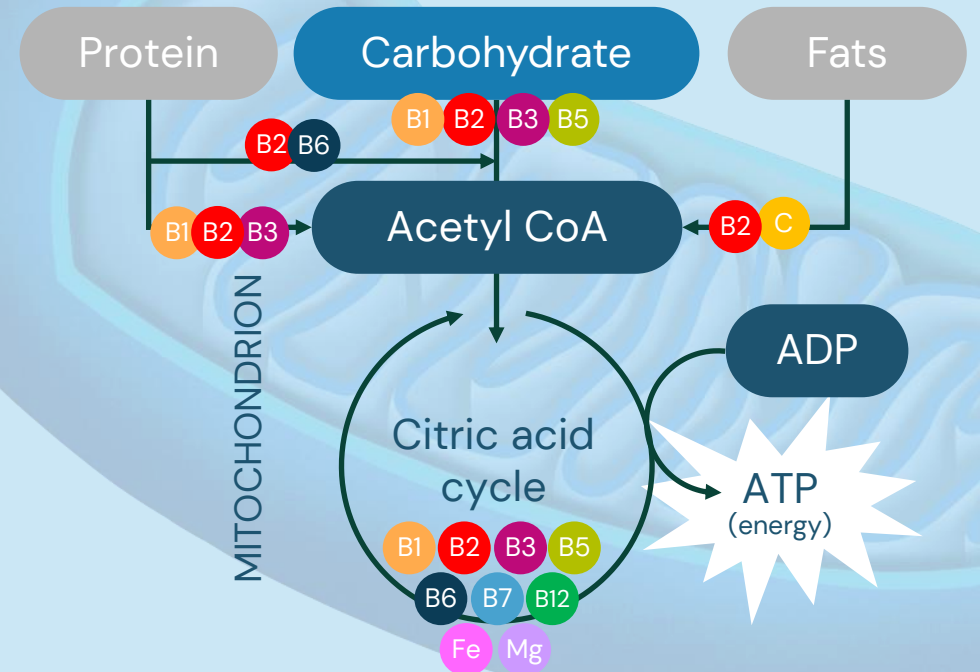
...support healthy red blood cell formation...

...oxygen delivery to tissues...

Reduced oxygen delivery can make us feel cold, tired, and low in energy.

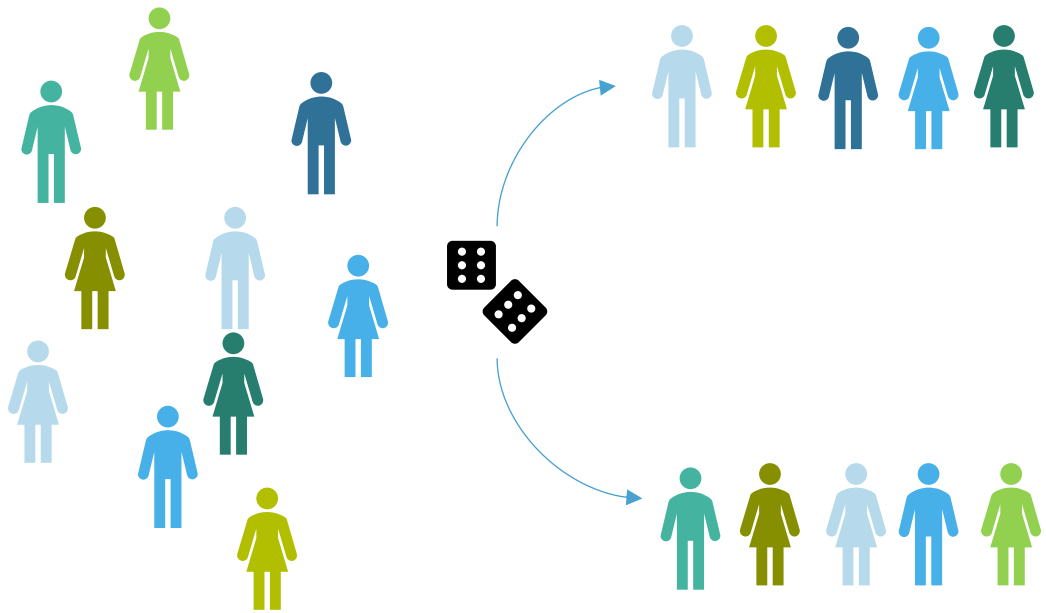


... B-vitamins, iron, Mg are essential in the production of ATP ...ATP provides the energy for the brain cells.,



Human studies are the standard for science-based claims

Randomized
Placebo controlled
Double-blind



Cognitive function

- Alertness (cognitive)
- Attention (selective / sustained)
- Memory

Emotional health

- Mood
- Psychological stress
- Anxiety
- Sleep
- Energy

Assignment: “Design a food or beverage concept for one of the target groups with a mental health or well-being benefit”

Team 1. 🚀

Ambitious Achiever

Profile: 28–35
career-driven
long hours

Team 2. 🌿

Balance Seeker

Profile: 30–40
juggling work + family life

Considerations

1. Mental unmet need
2. “Mainstream” vs “premium”
3. Food / Beverage type
4. Nutrition ingredients
 1. Plant or dairy proteins, Vegetable oils (soybean, canola), Carbohydrates (corn syrups, starches), Fibers
 2. Vitamins, minerals, bioactives, botanicals
5. Sensory: texture/color/flavor
6. Packaging
7. Claim strategy
 - Type of evidence backing your claim
 - Bold vs conservative
 - Consumer trust

