

GRASS-FED BEEF ORGANS:
**NUTRITIONAL
POWERHOUSE**



WHY GRASS-FED MATTERS



- Organs from grass-fed cattle are extraordinarily dense in vitamins, minerals, proteins, and bioactive compounds.
- Their fatty acid profile (higher in Omega-3s and CLA) is significantly more favorable for human health than grain-fed counterparts.
- Feeding cattle grass, forage, and legumes matches their natural rumen physiology, leading to superior nutrient storage in organs.

Historically known as “red viscera meat”, organ consumption was a pillar of hunter-gatherer diets, offering:

- Nutrients in bioactive form.
- High absorption rates.
- A balance unmatched by muscle meat.
- (Ref: Eaton SB, NEJM 1988)

WHY GRASS-FED MATTERS



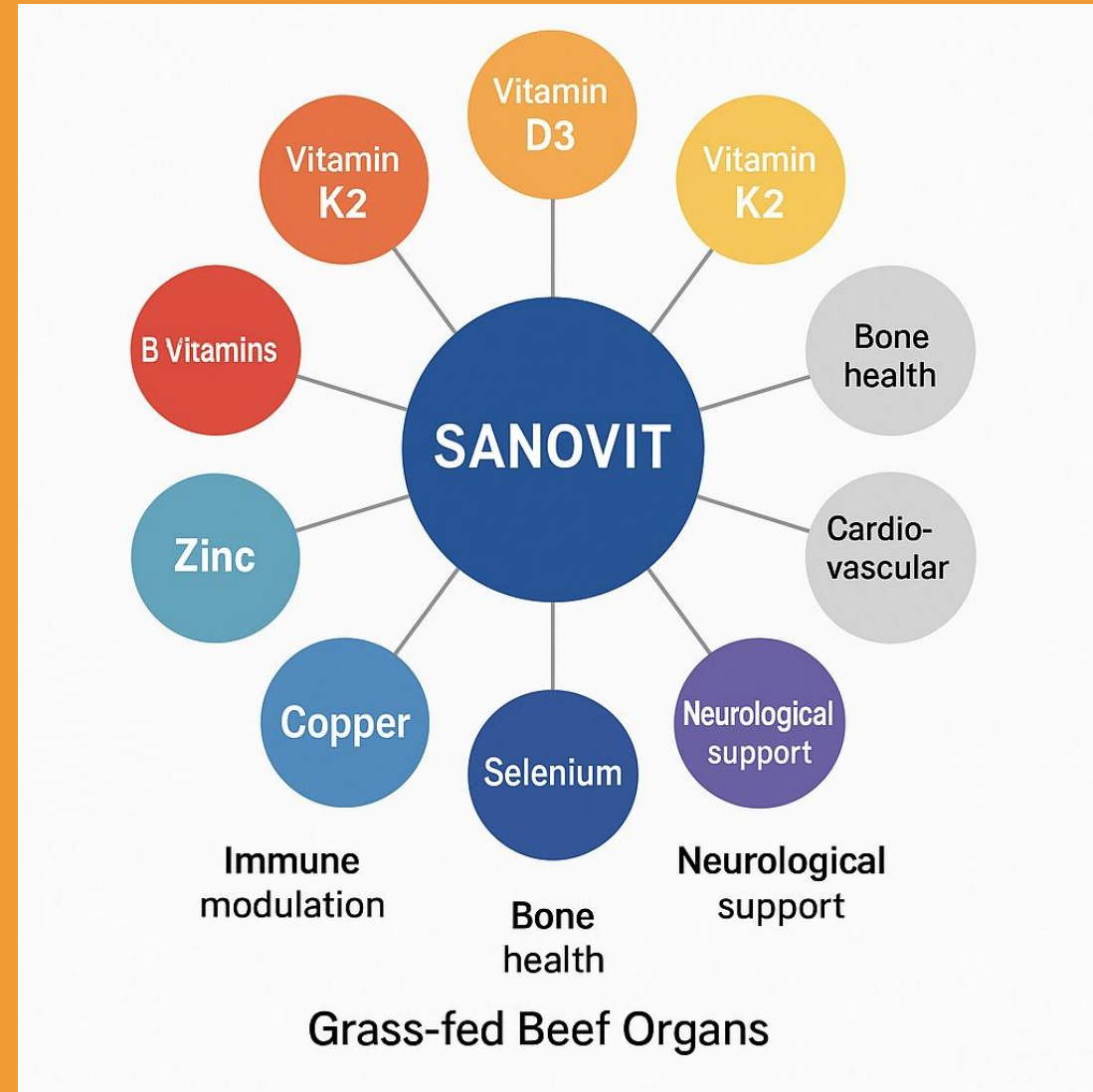
tabla_vitaminas_beef_organs

Nutriente	Forma presente en Beef Organs	Conversión bioquímica en el cuerpo	Función clínica principal
Vitamina A (Retinol)	Preformada (no provitamina)	Directa absorción → Retinal y ácido retinoico	Visión, inmunidad, diferenciación celular
Vitamina D3 (Colecalciferol)	Preformada	Hidroxilación hepática y renal → Calcitriol	Regulación calcio/fósforo, función inmune
Vitamina E (α-tocoferol)	Antioxidante lipídico	No requiere conversión	Protección de membranas celulares
Vitamina K2 (Menaquinona-4)	Forma activa	No requiere conversión	Salud ósea, prevención de calcificación arterial
Vitamina B1 (Tiamina)	Libre y fosforilada	→ TPP (Tiamina pirofosfato)	Metabolismo de carbohidratos, ciclo de Krebs
Vitamina B2 (Riboflavina)	Libre	→ FAD y FMN	Respiración celular, metabolismo energético
Vitamina B3 (Niacina)	Libre	→ NAD ⁺ / NADP ⁺	Producción de energía (ATP)
Vitamina B5 (Ácido pantoténico)	Libre	→ CoA	Síntesis de ácidos grasos, neurotransmisores
Vitamina B6 (Piridoxina/Piridoxal)	Libre	→ PLP (Piridoxal fosfato)	Metabolismo aminoácidos, neurotransmisión
Vitamina B7 (Biotina)	Libre	No requiere conversión	Cofactor carboxilasas, gluconeogénesis
Vitamina B9 (Folato)	Forma reducida	→ THF (tetrahidrofolato)	Síntesis ADN, metilación
Vitamina B12 (Cobalamina)	Complejo proteína-B12	→ Metilcobalamina y Adenosilcobalamina	Metabolismo de homocisteína, síntesis de ADN
Colina	Fosfatidilcolina, acetilcolina	No requiere conversión	Síntesis membranas, neurotransmisión
Hierro Hemo	Fe ²⁺ ligado a hemoglobina/mioglobina	Alta biodisponibilidad	Formación de glóbulos rojos
Zinc	Libre y ligado a enzimas	No requiere conversión	Cofactor en >300 enzimas
Cobre	Ceruloplasmina	No requiere conversión	Metabolismo hierro, antioxidante
Selenio	Selenoproteínas	No requiere conversión	Antioxidante, función tiroidea
Coenzima Q10	Ubiquinona	No requiere conversión	Producción de ATP en mitocondrias
Péptidos bioactivos	Factores de crecimiento, citoquinas	Actúan directamente	Reparación tisular, modulación inmune

THE NUTRIENT SYMPHONY OF BEEF ORGANS



Each organ contributes unique compounds, together forming a comprehensive supplement:



THE NUTRIENT SYMPHONY OF BEEF ORGANS



BEEF LIVER – NATURE'S MULTIVITAMIN

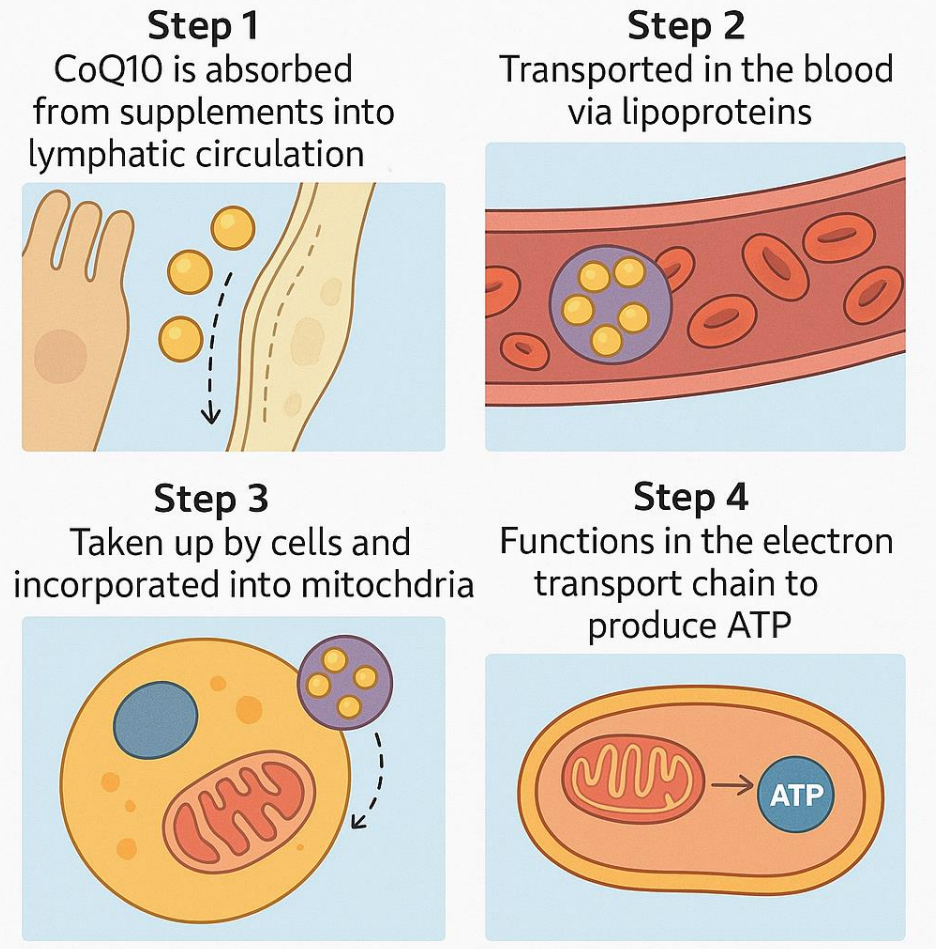
- 100 g → 135 kcal, 20.4 g protein.
- Vitamin A: up to 18,000 µg (powerful for vision, immunity, skin).
- B Vitamins: especially B12 (65 µg/100 g, far above RDI), folate, biotin, B6, B5, B3.
- Iron (heme form): most bioavailable, prevents anemia.
- Other compounds: zinc, copper, choline (brain & detox support).

Note: Excessive vitamin A intake risk of toxicity.

THE NUTRIENT SYMPHONY OF BEEF ORGANS

BEEF HEART – ENERGY & CARDIOVASCULAR HEALTH

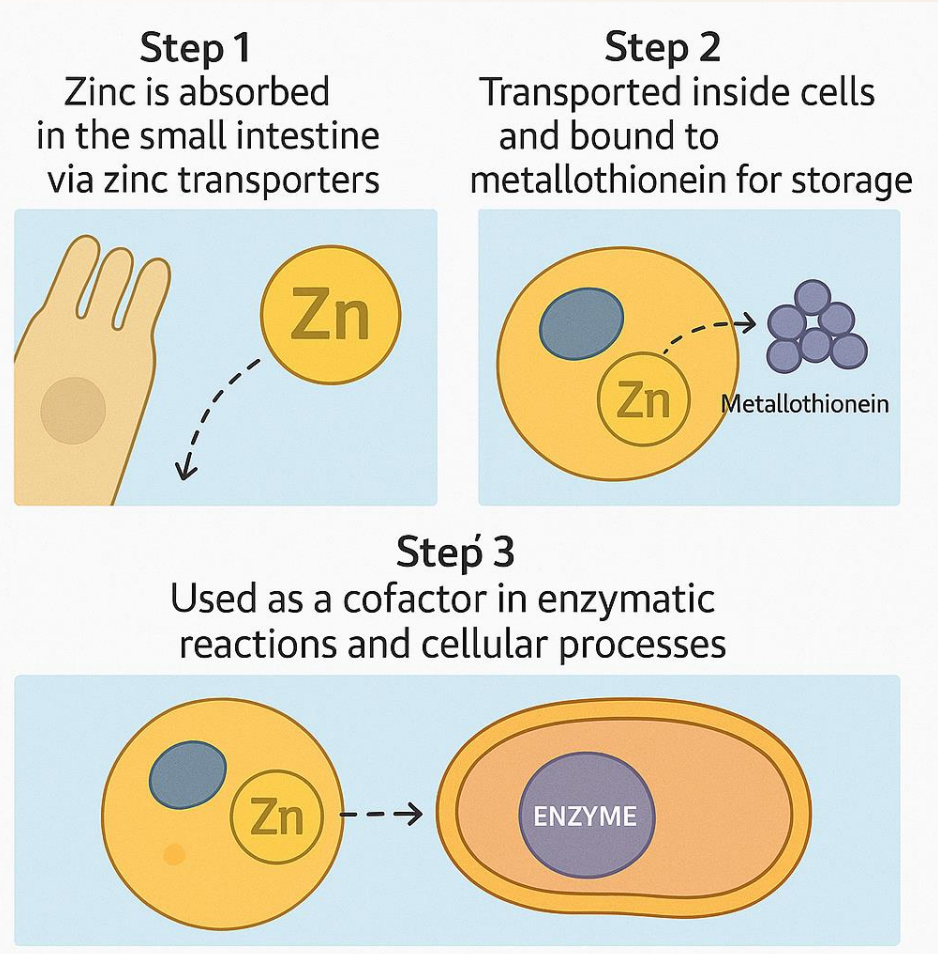
- 100 g → 112 kcal, 17.7 g protein.
- CoQ10: crucial for mitochondrial energy + antioxidant protection.
- Minerals: iron, zinc, selenium.
- Supports energy metabolism and cardiovascular function.



THE NUTRIENT SYMPHONY OF BEEF ORGANS

BEEF KIDNEY – THE TRACE MINERAL FILTER

- 100 g → 99 kcal, 17.4 g protein.
- Minerals: rich in selenium, copper, zinc, phosphorus.
- Vitamins: B2, B7, B9, B12, plus notable A & C.
- Supports metabolism, detoxification, and cell protection.



THE NUTRIENT SYMPHONY OF BEEF ORGANS



PANCREAS

- Source of digestive enzymes (amylase, lipase, protease).
- Supports digestion and nutrient absorption.

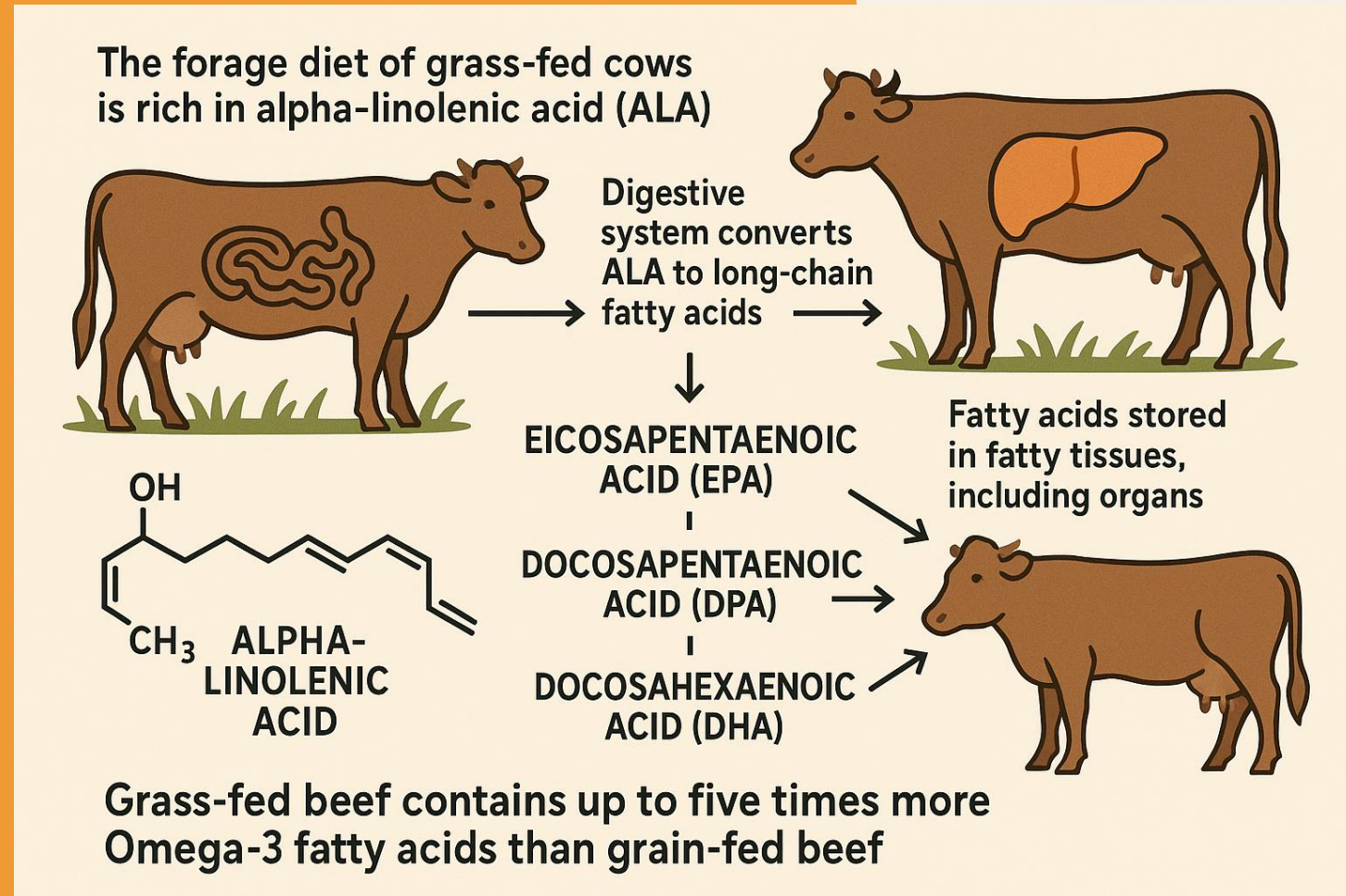
SPLEEN

- High iron concentration.
- Contains peptides & proteins linked to immune support.

GRASS-FED ADVANTAGE IN FATTY ACIDS



- Grass diets are rich in alpha-linolenic acid (ALA).
- Ruminants convert ALA into EPA, DPA, DHA (long-chain Omega-3s).
- Grass-fed beef organs contain up to 5x more Omega-3 than grain-fed.
- Results in a superior Omega-6:Omega-3 ratio, supporting:
 - Cardiovascular health.
 - Anti-inflammatory effects.



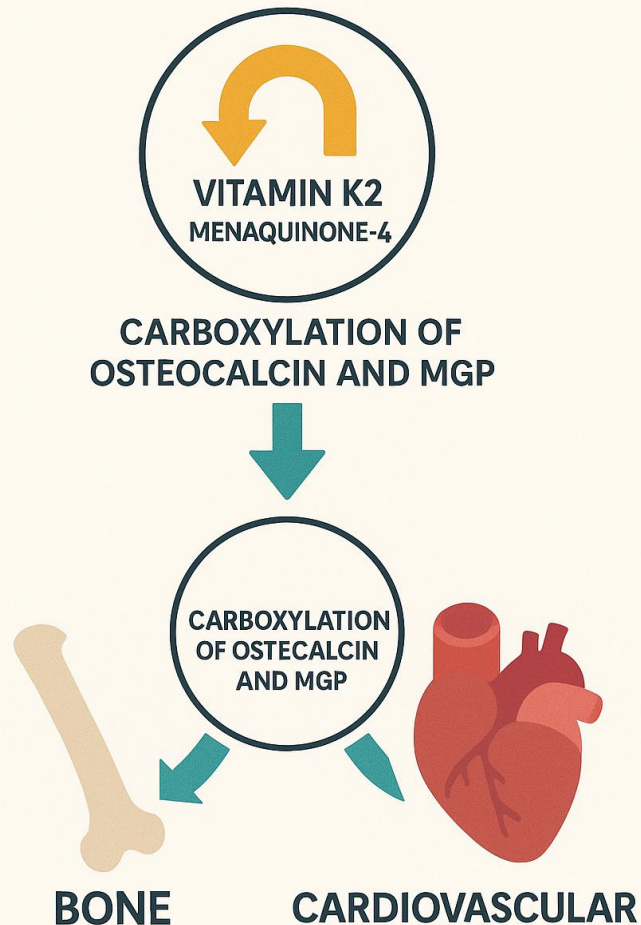
MODERATION & SAFETY

- Nutrient density = benefit and caution.
- Excess intake of liver/kidney: risk of vitamin A & iron toxicity.
- Supplement form: typically, 1-3 capsules/day (depending on brand).
- Always follow manufacturer guidelines and consult healthcare professionals.



VITAMIN K2: BONE & VASCULAR HEALTH

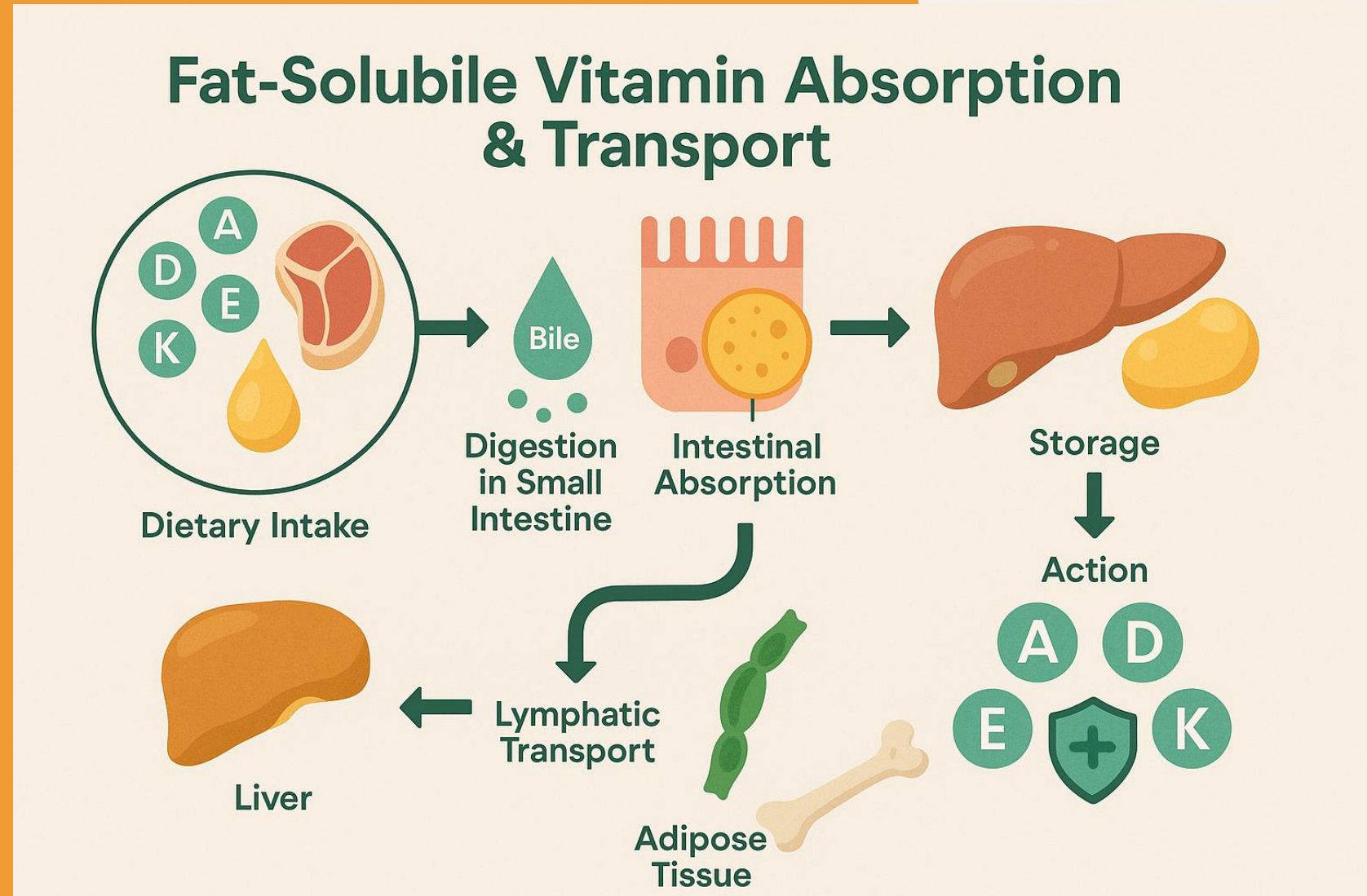
VITAMIN K2 – BIOCHEMICAL PATHWAY



- MK-4 → Osteocalcin, MGP carboxylation
- Bone health, vascular protection.

ABSORPTION PATHWAY OF FAT-SOLUBLE VITAMINS

- Micelles → chylomicrons → lymphatic transport → liver storage.



EVIDENCE-BASED CONCLUSIONS



- Grass-fed beef organs are among the most nutrient-dense foods on the planet.
- Provide:
 - Vitamins (A, B-complex, especially B12).
 - Minerals (heme iron, zinc, copper, selenium).
 - Bioactive compounds (CoQ10, enzymes, peptides).
- Grass-fed factor: higher Omega-3, CLA, antioxidants: clear superiority over grain-fed.

RECOMMENDATIONS

- Prioritize grass-fed, non-defatted organ supplements to ensure full nutrient integrity.
- Use in moderation, adapted to individual needs.
- Integrate as a strategic dietary tool for long-term health and prevention.





www.sano-vit.com | (939) 358-0712 | info@sano-vit.com