

GeneFood

Anti-inflammatory Nutrition



What is Anti-Inflammatory Nutrition?

Inflammation is one of the body's languages: when well-regulated, it protects and repairs; when prolonged and silent, it wears down the biological terrain.

Anti-inflammatory nutrition is not a rigid "diet," but rather a way of choosing, preparing, and savoring foods that favor the resolution (not just suppression) of inflammatory processes. It refines cellular communication, membrane quality, immune system tone, and mitochondrial vitality (our energy powerhouses).

In practice, it's about bringing order to the internal environment: reducing the stimuli that inflame while amplifying the signals that soothe, repair, and harmonize. With consistency, the body begins to respond with greater ease: better energy flow, mental clarity, balanced skin, steadier digestion, and a more stable mood.

This path is inherently positive: it does not revolve around "forbidding," but around adding what nourishes, sustains, and uplifts. It takes into account personal context, life stage, routine, and seasonality — and, within the GeneFood universe, it also integrates genetic clues that help personalize choices, rhythm, and strategy. What you eat, how you eat, when you eat — all of it blended with charm and pleasure, the basic ingredients.

In the sections below, we present foods and supplements that, together, help modulate inflammatory pathways and support antioxidant responses — forming a stable base for longevity. Always prefer organic foods, more natural than processed: the safest path to healthy eating.

1. Foods

Following an anti-inflammatory pattern means both favoring anti-inflammatory foods and limiting the frequent intake of pro-inflammatory ones. Important to highlight: a food plan is not only a biochemical choice, but also a gentle and loving way to care for the body.

Here we refer to the group of anti-inflammatory and antioxidant foods, since inflammation and oxidation always walk together.

List of Anti-Inflammatory and Antioxidant Foods

- ✓ Avocado
- ✓ Pineapple
- ✓ Pumpkin and squash
- ✓ Garlic and leek
- ✓ Asparagus
- ✓ Extra virgin olive oil

Garlic vs. Leek: vibrationally, leek carries the energy of clarity and softness. Unlike garlic (more intense, protective, a kind of "energetic shield"), leek is more delicate, almost like an internal air purifier, opening space for flow.

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- ✓ Eggplant
 - ✓ Beetroot
 - ✓ Pure cacao and unsweetened dark chocolate
 - ✓ Teas: Green tea & Matcha, White tea, Rooibos, Hibiscus, Chamomile, Turmeric tea with pepper and lemon
 - ✓ Onion, especially red onion
 - ✓ Carrot
 - ✓ Medicinal mushrooms: shiitake, maitake, reishi
 - ✓ Dark leafy greens (kale, spinach, Swiss chard, chicory, escarole, watercress)
 - ✓ Citrus fruits (orange, lemon, lime, tangerine, pomelo, grapefruit, bergamot, citron)
 - ✓ Berries (strawberry, raspberry, blackberry, cherry, blueberry, cranberry, red currant, black currant, açai, maqui berry, goji berry, physalis)
 - ✓ Papaya
 - ✓ Fatty fish rich in omega-3 (mackerel, herring, sardine, wild salmon, rainbow trout, tuna, cod liver)
 - ✓ Pomegranate
 - ✓ Nuts and seeds (Brazil nut, cashew, walnut, macadamia, pecan, almond, pistachio, hazelnut, pine nut; seeds of sesame, sunflower, pumpkin, flax — especially golden flax. Oils from these sources may also be used.)
 - ✓ Functional spices (turmeric, fresh ginger, paprika, black pepper [activates curcumin], oregano, rosemary, thyme, basil, cinnamon)
 - ✓ Tomato
 - ✓ Purple grapes

Managing pro-inflammatory foods

As noted, beyond increasing anti-inflammatory foods, it's important to limit pro-inflammatory ones. These not only foster silent inflammation but also contribute to the acidification of the internal environment — a terrain that, over time, can compromise cellular balance and vitality.

"Control" does not mean total exclusion.

The aim is balance, where anti-inflammatory foods predominate.

Anti-Inflammatory Nutritional Strategies

✓ Omega-3 capsules with eggs

Arachidonic acid (pro-inflammatory) present in egg yolk competes for the same enzyme (cyclooxygenase) as omega-3 fatty acids (anti-inflammatory) (Elisia I et al., 2022). Thus, a simple anti-inflammatory strategy is to take omega-3 capsules together with egg yolks. These combinations, simple and effective, empower the body to protect itself against damage that ages and inflames. Pure nutritional alchemy — transforming a potential “villain” into an ally through synergy!

✓ Golden Milk: warming self-care

Golden Milk combines turmeric (curcuminoids), ginger (gingerols/shogaols), and cinnamon (polyphenols) in a hot vehicle with fat (whole milk, coconut, ghee) and black pepper (piperine). This trio — heat + fat + piperine — enhances curcumin bioavailability, supporting its action on pro-inflammatory pathways (NF- κ B/COX-2) and oxidative stress. Ginger adds a gentle digestive/antiemetic effect, while cinnamon supports glucose metabolism. Beyond biochemistry, the nightly ritual activates the parasympathetic tone, reduces stress-axis arousal, and helps the body shift into restoration mode — which indirectly modulates inflammation (Karimi M et al., 2025; Tabanelli R et al., 2021).

How to use (without detailed recipe): Take this as a culinary dose, not therapeutic. One serving daily or intermittently as part of the anti-inflammatory pattern. Prefer creamy plant milks (coconut, almond) or animal milk with some fat; heat gently. Add a pinch of black pepper and a fat source (e.g., ½ tsp coconut oil or ghee). Sweeten with honey or dates if desired (avoid excess at night).

When it makes sense:

As gentle daily support for those seeking to reduce “inflammatory noise,” improve sleep/recovery, and care for digestion.

As a ritual of presence: it raises frequency at the end of the day, helping to slow down, calm, and return with more attention to the body’s needs after daily tasks.

Notes:

If you use anticoagulants, have gallstones/biliary obstruction, or gastrointestinal sensitivity to pepper, seek guidance from a qualified professional.

Golden Milk does not replace treatments; it is a complement aligned with an anti-inflammatory lifestyle.

✓ Vegetable juices, especially from juicers and slow juicers: Intelligent Liquid Nutrition

Vegetable juices are an efficient way to concentrate phytochemicals, minerals, and structured water with very low digestive load. By removing insoluble fiber, the body directs energy toward the rapid absorption of micronutrients (chlorophyll, polyphenols, carotenoids), supporting the modulation of inflammatory pathways and the cellular antioxidant tone. As a GeneFood ritual,



they work as an “inner green bath”: calming the terrain, easing the liver, and brightening mental clarity (Babateen AM et al., 2022; Liu Y et al., 2024; Sardaro MLS et al., 2025).

Centrifugal vs. Slow juicers:

Centrifugal juicers: fast extraction, practical for daily use. They may produce more foam/oxidation; best consumed immediately.

Slow juicers (cold-press): slower, gentler extraction, less oxidation, and better yield from leafy greens; the flavor tends to be purer and more stable.

Gentle guidelines:

– Proportion:

70–90% vegetables/greens; 10–30% fruit only for palatability. Extraction removes most insoluble fiber; glycemic response depends on free sugar per serving (generally 200–250 ml is recommended).

– Vegetable selection:

In general, cucumber, celery, leafy greens/herbs (kale, arugula, watercress, spinach, lettuce, parsley), beet, carrot, and fruits (apple, pineapple, orange, lemon, pear, grape, kiwi) can be used — respecting the restrictions described under “specific conditions.” Lower glycemic load: cucumber, celery, leafy greens.

– Functional ingredients:

Fresh ginger: 1–2 cm; caution with anticoagulants or reflux.

Fresh turmeric: 0.5–1 tsp; note curcumin’s low bioavailability in juices; modest benefit; caution in biliary obstruction/gallstones.

Mint: refreshing and digestive.

– Glycemic modulation:

For glycemic concerns (e.g., diabetes/insulin resistance), prefer to drink juice with other foods (after protein/fat/fiber) or with 15–20 g of nuts/seeds; another option is to add 1 tbsp of soaked chia/flaxseed to the juice (mix right after extraction). In light fasting, take care with reactive hypoglycemia.

– Specific conditions:

1. Kidney stones (calcium oxalate): reduce spinach, Swiss chard, beet greens.

2. Anticoagulant use (e.g., warfarin): keep vitamin K intake stable; review potential interactions with ginger/turmeric at high supplemental doses; seek professional guidance to individualize portion.

3. Antihypertensive use: caution with excess dietary nitrates (vasoactive/vasodilatory), such as beetroot and celery, to avoid hypotensive episodes.

4. Low-FODMAP diet: avoid apple/pear; prefer citrus, cucumber, kale, lettuce, herbs; test kiwi in small portions.



5. Digestive issues: assess tolerance to cruciferous and allium vegetables.

Cruciferous (Brassicaceae)

Rich in glucosinolates, which release isothiocyanates such as sulforaphane:

Broccoli

Kale (curly, lacinato, collard)

Cauliflower

Cabbage (red, white)

Arugula

Watercress

Turnips

Radishes

Mustard greens

Alliums (Alliaceae/Liliaceae)

Source of allicin and sulfur compounds with antioxidant and anti-inflammatory effects:

Garlic

Onion (white, red, yellow)

Chives

Leek

Shallot

- Note: Even with “healthy” foods, adverse effects may occur, either immediate or long-term

6. Chronic kidney disease with hyperkalemia (high potassium): assess potassium profile of ingredients and recent labs.

7. Gastroesophageal reflux: adjust citrus and ginger intake according to symptoms.

- **Portions and frequency:** Adults: 200–250 ml, 1 serving/day is sufficient for a “functional” purpose.
- **Safety/storage:** Wash produce and utensils well; prefer immediate consumption after preparation.

Juices do not replace full meals:
they are complements within a coherent
anti-inflammatory eating pattern.

 Polyphenols: orchestrating healthy longevity

Polyphenols are the plants’ natural “defenses” which, once consumed, provide antioxidant protection and broad health benefits in both the short and long term. They protect body cells against damage such as inflammation, support metabolism, and act on gut health through



interactions with the microbiota.

Where to find them:

- Fruits and vegetables, especially colorful ones (açaí, blueberry, strawberry, raspberry, grapes, apple, onion, broccoli, kiwi, cucumber)
- Green tea, black tea, coffee, and cocoa/dark chocolate
- Olive oil, nuts, and seeds
- Herbs and spices (turmeric, oregano, rosemary, thyme, parsley, sage, among others)

Main types:

Flavonoids

- Flavonóis: quercetina, kaempferol, fisetina
- Flavonas: luteolina, apigenina, baicalina
- Flavanonas: naringenina (aglicona), naringina (glicosídeo), hesperetina (aglicona), hesperidina (glicosídeo)
- Flavanóis: catequina, epicatequina, epigallocatequina-3-galato (EGCG)
- Antocianidinas: cianidina, delphinidina, malvidina, petunidina, pelargonidina, peonidina
- Isoflavonas: genisteína, daidzeína

Phenolic acids

- Hidroxicinâmicos: ácido clorogênico, caféico, ferúlico, sinápico
- Hidroxibenzoicos: gálico, elágico

Stilbenes (resveratrol, pterostilbene)

Lignans: secoisolariciresinol, matairesinol, pinoresinol, lariciresinol

2. Supplements

Here's the same section translated into English, keeping the list format and references:

- ✓ **Alpha-lipoic acid or R-alpha-lipoic acid** (Vidović B et al., 2017)
- ✓ **Astaxanthin** (Zhuge F et al., 2021)
- ✓ **Berberine** (*Berberis aristata*) (Feng X et al., 2019)
- ✓ **Boswellia** (*Boswellia serrata*) (Vaidya N et al., 2025)
- ✓ **Coenzyme Q-10 and/or Ubiquinol** (Zhai J et al., 2017)
- ✓ **Curcumin** (Panahi Y et al., 2016)
- ✓ **Green tea extract** (Bolin AP et al., 2020; Chen IJ et al., 2016); may be used as a supplement, though tea consumption itself should be prioritized
- ✓ ***Pinus pinaster* extract** (Pycnogenol®) (Lee OK et al., 2012; Jafari F et al., 2022)
- ✓ **Fisetin** (Qnais E et al., 2023)
- ✓ **Ginger** (*Zingiber officinale*) (Jalali M et al., 2020)
- ✓ **Gurmar or *Gymnema sylvestre*** (Kumar PM et al., 2016)
- ✓ **Luteolin** (Lv J et al., 2025)
- ✓ **Omega-3**: EPA/DHA and flaxseed oil (Al-Madhagy S, 2023; Alsaleh A et al., 2013; Calder PC, 2017)
- ✓ **N-acetylcysteine (NAC)** (Askari M et al., 2020; Santus P et al., 2024)
- ✓ **Naringenin** (Cai J et al., 2023; Rebello CJ et al., 2019)
- ✓ **Pomegranate** (Farhat G et al., 2020; Michicotl-Meneses MM et al., 2021; Shetty A et al., 2025)
- ✓ **Probiotics**, especially *Lactobacillus plantarum* and *Lactobacillus rhamnosus* (Choi E et al., 2022; Hao R et al., 2023; Shin SM et al., 2024)
- ✓ **Quercetin** (Kršková K et al., 2025)
- ✓ **Resveratrol** (Wang A et al., 2011)
- ✓ **Spirulina** (*Arthrospira*) (Karimi S et al., 2025)
- ✓ **SPMs** (Specialized Pro-Resolving Mediators) (Möller I et al., 2023)



✓ **Sulforaphane** (Zhao XJ et al., 2022)

✓ **Tocotrienols** (Khor BH et al., 2021; Looi AD et al., 2025)

Nutrients that modulate inflammation

Some substances are not usually considered direct anti-inflammatories but **modulate the biological terrain**, influencing the body's response.

Vitamin C supports antioxidant defenses and may attenuate inflammatory mediators in situations of high oxidative stress (Jiang W et al., 2025).

Vitamin D3 acts as an immunomodulatory hormone, adjusting cytokine expression and favoring balance between defense and tolerance (Aribi M et al., 2013; Ashique S et al., 2023).

Minerals such as magnesium, chromium, selenium, and zinc also play a role, as their adequate presence regulates metabolic pathways that impact low-grade inflammation (Veronese N et al., 2022; Yao X et al., 2021).

They do not "extinguish the fire" directly, but help regulate the internal climate, making the body less prone to excessive inflammation and more capable of maintaining cellular harmony.

Attention to new technologies

Phytosomal berberine, phytosomal or nanoemulsified curcumin, phytosomal quercetin, and liposomal vitamin C are examples of advanced pharmaceutical technologies designed to improve absorption, stability, and clinical efficacy. These innovations represent a true revolution in nutritional supplementation, reflecting 21st-century advances and enabling smarter, more efficient, and clinically effective supplementation (Singh P et al., 2023).

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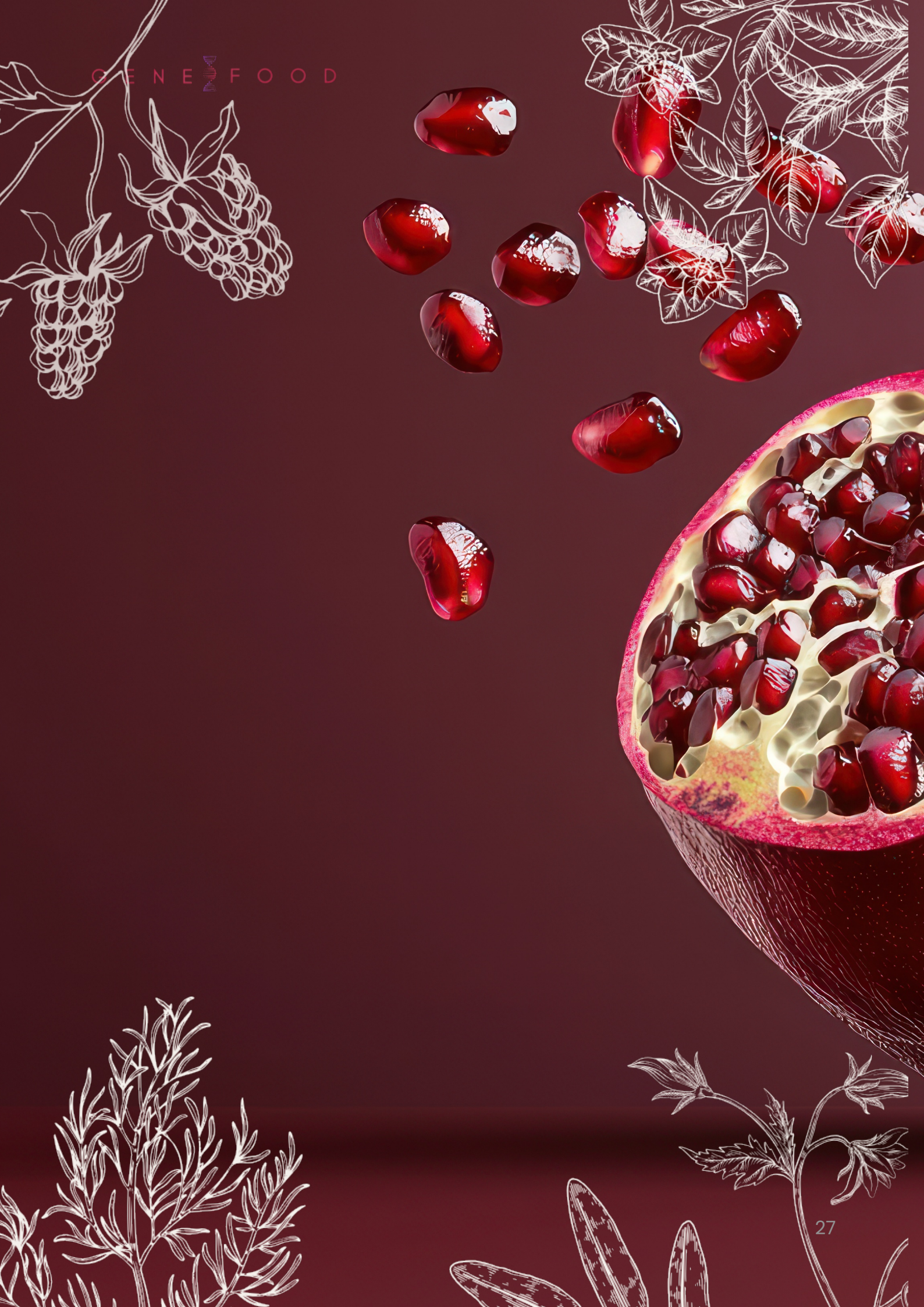
















GREEN FOOD









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GeneFood Project
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