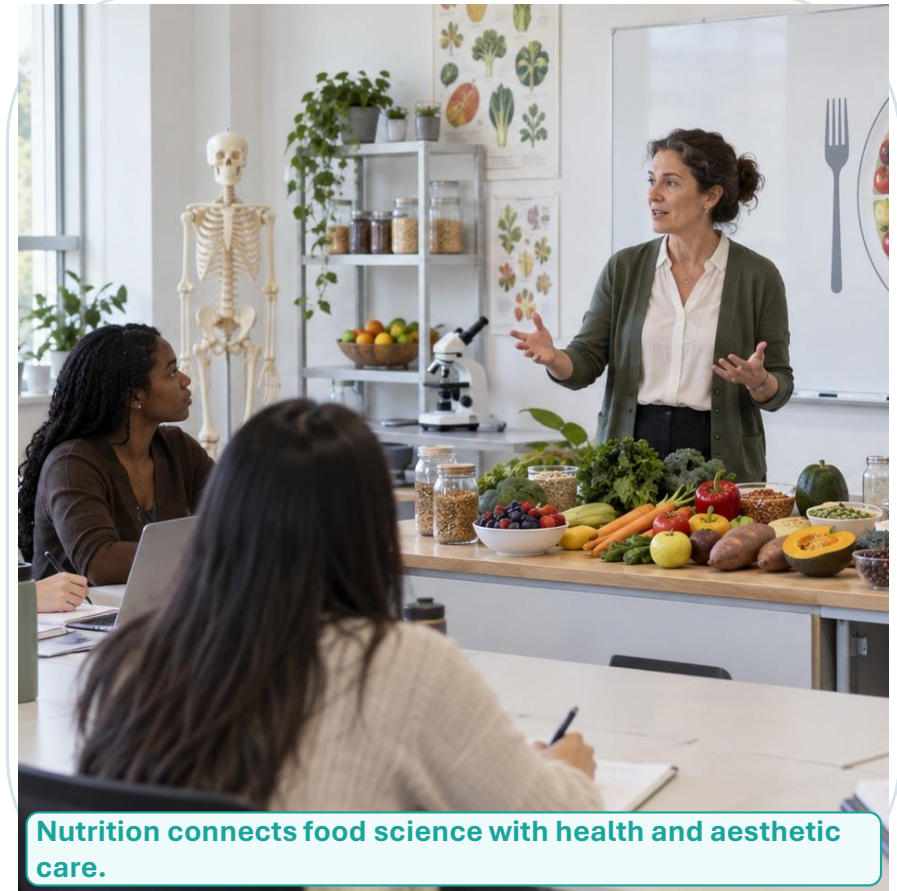


Theory

Introduction to Nutrition

Dr. Marlen Hashem Salloum



Evidence-based

Applied learning

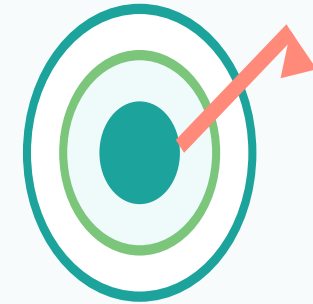
Skin • Hair • Body

Learning Objectives



By the end of this session, students will be able to:

- 1 Define nutrition and explain its main objectives.
- 2 Describe why adequate nutrition is important for health and body function.
- 3 Explain basic links between nutrition, skin, hair, cosmetics and dermatology.
- 4 Differentiate evidence-based nutrition advice from cosmetic marketing claims.



Define • Explain • Differentiate

Level



Concepts → mechanisms → relevance

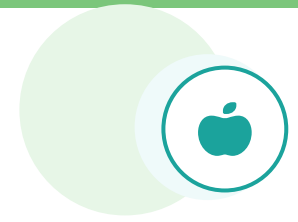
Introduction

Nutrition studies how food and nutrients support growth, repair and health.

Food provides energy, water and essential nutrients.

Nutritional status influences body composition and the appearance/function of skin and hair.

Aesthetic outcomes are multifactorial; diet is one contributor, not a stand-alone treatment.



Definition & Key Concepts



Nutrition



Study of food, nutrients and their use by the body.

Nutrient



A substance needed for energy, structure or regulation.

Nutritional status



The body's condition related to nutrient intake and use.

Balanced diet



A varied pattern that meets needs without chronic excess.

The Nutrition Framework



Intake



Foods, beverages and supplements consumed.

Digestion & absorption



Release and uptake of nutrients from food.

Metabolism



Use, conversion, storage and elimination.

Outcome



Health, growth, repair and functional status.

Main Physiological Roles



Energy



Carbohydrate, fat and protein can supply energy.

Structure



Protein, minerals and lipids contribute to tissues.

Regulation



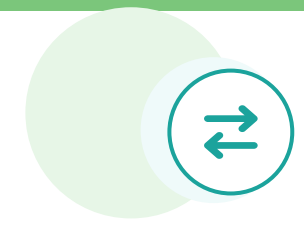
Vitamins, minerals and water support physiological processes.

Repair & defense

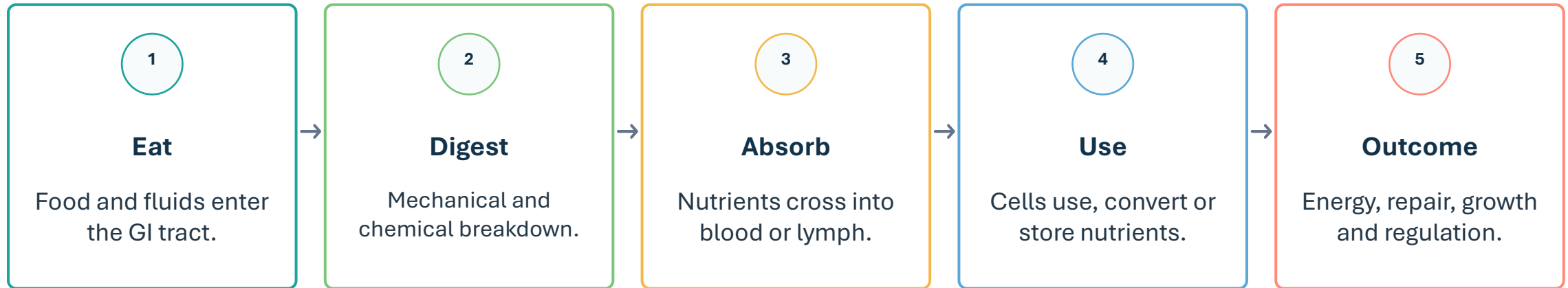


Adequate nutrients support wound repair and normal immune function.

From Food to Body Function



Follow the sequence from intake or trigger to physiological outcome.



Teaching point



Nutrition science follows a pathway: intake → digestion → absorption → metabolism → functional effects.



Food Sources & Everyday Examples

- ❑ Whole and minimally processed foods provide nutrient combinations, not isolated “beauty ingredients.”
- ❑ Vegetables and fruits supply vitamins, minerals, fiber and phytochemicals.
- ❑ Whole grains and starchy foods supply carbohydrate, fiber and micronutrients.
- ❑ Protein foods and dairy/fortified alternatives supply protein and key micronutrients.
- ❑ Oils, nuts, seeds and fish supply unsaturated and essential fatty acids.



Whole foods provide nutrients in a real dietary context.

What Determines Nutrient Requirements?

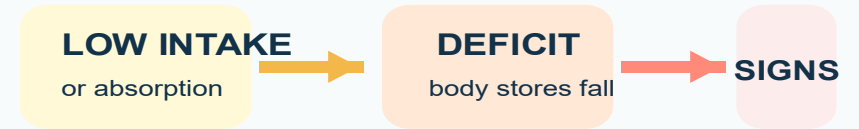
- ✓ Age, sex, growth stage and body size.
- ✓ Physical activity, pregnancy/lactation and health status.
- ✓ Climate, medication use and certain disease conditions.
- ✓ Diet quality, bioavailability and individual variation.



Requirements vary with age, activity, health status and individual context.

Deficiency: What Can Happen?

- ❖ Deficiency may result from low intake, poor absorption, higher need or excess losses.
- ❖ Effects depend on the nutrient involved, severity and duration.
- ❖ Skin, hair and nails may change, but these signs are often nonspecific.
- ❖ Assess diet history, symptoms, clinical findings and, when needed, lab data.



Assess the whole picture

Diet history + symptoms + examination + labs when appropriate

Avoid guessing



A cosmetic sign alone rarely proves a nutrient deficiency.

Excess, Toxicity & Cautions

- “More” is not automatically better; excessive energy or nutrient intake can also harm health.
- High-dose supplements may exceed safe upper levels or interact with medications.
- Fat-soluble vitamins and some minerals are more likely to accumulate than water-soluble nutrients.
- Use food-first approaches unless there is a clear indication for supplementation.



Supplement safety

Need → Evidence → Dose

Duration → Monitoring



Safety principle



Need → evidence → dose
→ duration → monitoring.

Relationship to Skin / Hair / Aesthetic Health

- Adequate energy and protein support tissue maintenance and repair.
- Essential fatty acids support cell membranes and skin barrier function.
- Micronutrient deficiency may affect skin or hair; supplements help mainly when intake or status is low.
- Diet does not replace dermatologic diagnosis or evidence-based treatment.



Nutrition supports normal skin and hair function; outcomes are multifactorial.

Clinical & Cosmetic Relevance

- ❑ Ask about usual food pattern, weight change, restrictive diets and supplement use.
- ❑ Look for red flags such as rapid unintentional weight loss or signs of severe deficiency.
- ❑ Use realistic food-based recommendations rather than “miracle foods.”
- ❑ Refer when skin/hair changes may reflect disease, medication effects or significant deficiency.



Assess food pattern, weight change, restrictive diets and supplement use.

Nutrition, Dermatology and Cosmetics: Different Roles



Area	Main focus	Nutrition contribution
Nutrition	Diet, nutrients, energy balance	Supports normal physiology and tissue maintenance
Dermatology	Diagnosis and treatment of skin/hair disease	May be one modifiable factor in selected conditions
Cosmetic science	Appearance, formulation and product performance	Claims should not be confused with nutrition evidence
Aesthetic health	Appearance within overall health	Uses balanced, safe and individualized goals



Applied Example: “Beauty Diet” Claim

Case



A 20-year-old student sees an online plan claiming that one juice “detoxes the skin,” prevents acne and replaces breakfast.



Think through the case

- 1 Identify two claims that require evidence.
- 2 Name two nutritional concerns with replacing a balanced meal.
- 3 Suggest a safer evidence-based message.
- 4 State when medical or dietetic referral may be needed.

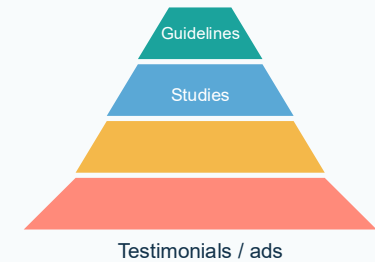
Do not equate marketing language with physiological evidence.

Important Notes & Myth Check

- A healthy diet supports normal function; it is not a cosmetic cure-all.
- Be cautious with before/after testimonials and “detox,” “anti-aging” or “glow” claims.
- Dose and deficiency status matter when interpreting supplement effects.
- A single food rarely determines skin or hair outcomes.



Evidence pyramid



Evidence hierarchy

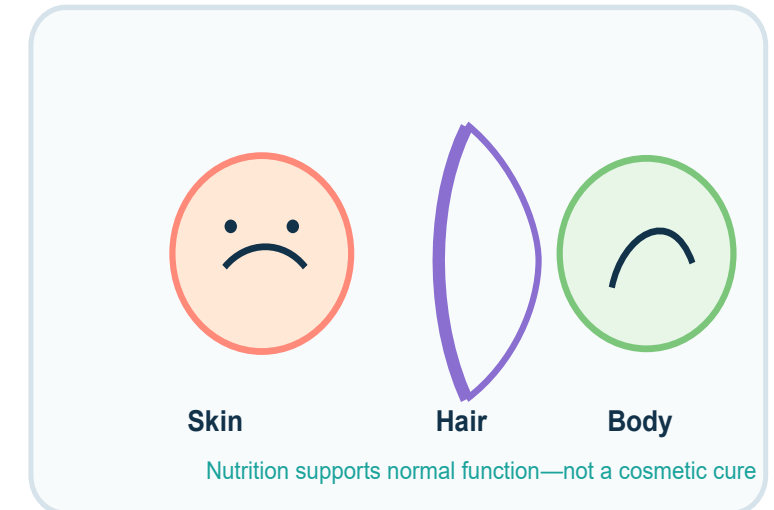


Guidelines and well-designed studies > testimonials and advertisements.

Summary & Take-Home Messages

Remember these five points:

- ✓ Nutrition links food intake with energy, structure, regulation and repair.
- ✓ Macronutrients and micronutrients have different but complementary roles.
- ✓ Skin and hair may reflect nutritional status, but signs are often nonspecific.
- ✓ Aesthetic outcomes depend on many factors beyond diet.
- ✓ Food-first, evidence-based guidance is safer than miracle claims.



One-line takeaway



Good nutrition supports healthy tissues and should be realistic, balanced and evidence-based.

References: *Learning Resources*



- ✓ Understanding Nutrition by Whitney & Rolfes
- ✓ Nutrition for Healthy Skin by Jean Krutmann
- ✓ Dietary Guidelines (WHO, FAO, USDA)

