Understanding Your Macronutrients

Carbs, Fats, Fibre & Protein — What They Are, How They Work, and How to Eat Them Right

Not all carbs, fats, or fibre behave the same way in your body — and knowing the difference helps you build meals that actually work for your energy, digestion, and long-term health. This guide breaks down the three core macronutrients, then goes deeper into the key distinctions people ask about most: simple vs complex carbs, saturated vs unsaturated fats, and soluble vs insoluble fibre.

The 3 Macronutrients, At a Glance

Macronutrient	Role in the Body	Energy (per gram)	Common Food Sources
Carbohydrates	Primary energy source for the body and brain	~4 kcal/g	Rice, roti, oats, fruits, legumes
Protein	Builds and repairs muscle, tissue, enzymes, and hormones	~4 kcal/g	Eggs, chicken, fish, dal, paneer, soy
Fats	Energy storage, hormone production, and vitamin absorption (A, D, E, K)	~9 kcal/g	Ghee, oils, nuts, seeds, avocado

CARBOHYDRATES: Simple vs Complex

Aspect	Simple Carbs	Complex Carbs
What It Is	Made of 1-2 sugar units (monosaccharides/disaccharides); a short, simple structure	Made of long chains of sugar units (polysaccharides); a more complex structure
Digestion Speed	Broken down and absorbed quickly, causing a fast rise in blood sugar	Broken down slowly due to fibre and starch content, giving a steadier glucose release
Effect on Energy	Quick energy burst, often followed by an energy dip as insulin responds to the spike	Sustained energy over a longer period, with fewer blood sugar swings
Food Examples	Sugar, honey, fruit juice, white bread, sweets, soft drinks	Brown rice, whole wheat roti, oats, millets, legumes, vegetables

How to include it: Build most meals around complex carbs (rice, roti, millets, legumes) for steady energy, and keep simple carbs for occasional treats or a quick source of energy right after a workout.

FATS: Saturated vs Unsaturated

Aspect	Saturated Fats	Unsaturated Fats
What It Is	Fatty acid chains with no double bonds; typically solid at room temperature	Fatty acid chains with one or more double bonds; typically liquid at room temperature

Aspect	Saturated Fats	Unsaturated Fats
Effect on Body	Can raise LDL ('bad') cholesterol when consumed in excess, though moderate amounts fit a normal diet	Can help improve cholesterol levels, especially when they replace saturated fats in the diet
Food Examples	Ghee, butter, coconut oil, fatty cuts of red meat	Olive oil, groundnut oil, nuts, seeds, fish, avocado
Key Point	Not inherently harmful in moderation, but shouldn't be the dominant fat source	Generally considered more heart-friendly when used as the primary fat source

How to include it: Use unsaturated fats (nuts, seeds, fish, plant oils) as your main fat source day-to-day, while keeping saturated fats like ghee and butter for moderate, occasional use rather than the default cooking fat.

FIBRE: Soluble vs Insoluble

Aspect	Soluble Fibre	Insoluble Fibre
What It Is	Dissolves in water and forms a gel-like substance during digestion	Does not dissolve in water; passes through the digestive tract largely intact
How It Works	Slows digestion, which helps regulate blood sugar spikes and can lower LDL cholesterol	Adds bulk to stool and helps food move through the gut, supporting regular bowel movements
Food Examples	Oats, apples, citrus fruits, beans, flaxseeds	Whole wheat, vegetable skins, nuts, wheat bran
Key Point	Especially useful for blood sugar and cholesterol management	Especially useful for digestion and preventing constipation

How to include it: Aim for both types daily rather than focusing on just one — whole fruits with the skin on, vegetables, legumes, and whole grains naturally provide a mix of soluble and insoluble fibre.

Note: This guide is for general nutrition education. Individual needs vary based on health conditions, activity levels, and goals — consult a registered dietitian or doctor for advice specific to you, especially if you have diabetes, high cholesterol, or a digestive condition.