

Expected Benefits

- **Weight Loss:** Helps reduce body fat to ideal range.
- **Better Blood Sugar:** Improves insulin sensitivity.
- **Kidney Protection:** Reduces strain by optimizing protein intake.
- **Cognitive Clarity:** Sharper focus and improved mood via ketones.
- **Sustainable Health:** Maintains muscle mass and supports long-term vitality.

Considerations

- Ensure adequate vitamins, minerals (e.g., iron, zinc, calcium), and essential amino acids through whole foods or supplements.
- Consult a healthcare professional before starting, especially if you have pre-existing conditions.
- Monitor hunger and adjust carbs/fats for satiety, as low protein may increase appetite in some.

Personalized Daily Macronutrient Targets by Age and Gender

Age Group	Calories (kcal)	Protein (g)	Fat (g)	Carbs (g)
0-1 yrs (combined)	700	18	23	105
1-3 yrs (combined)	1,100	28	37	165
4-5 yrs (combined)	1,300	33	43	195
6-8 yrs (combined)	1,500	38	50	225
9-11 yrs (combined)	1,850	46	62	278
12-15 yrs (Male)	2,300	58	77	345
12-15 yrs (Female)	2,000	50	67	300
16-18 yrs (Male)	2,800	70	93	420
16-18 yrs (Female)	2,300	58	77	345
19-30 yrs (Male)	2,600	65	87	390
19-30 yrs (Female)	2,100	53	70	315
31-50 yrs (Male)	2,400	60	80	360
31-50 yrs (Female)	1,900	48	63	285
51+ yrs (Male)	2,200	55	73	330
51+ yrs (Female)	1,700	43	57	255

WHITE PAPER BY DR. ROGER BILLINGS

The Catalytic Diet: Essential Protein Optimization for Metabolic Health and Weight Loss



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The Catalytic Diet

To Feel Your Best

■ What is the Catalytic Diet?

The **Catalytic Diet**, developed by Dr. Roger Billings, is a science-backed nutritional plan designed to optimize your metabolic health. By carefully balancing macronutrients, this diet promotes sustainable weight loss, improved blood sugar control, and enhanced overall well-being.

MACRONUTRIENT BREAKDOWN

Protein (10% of calories):

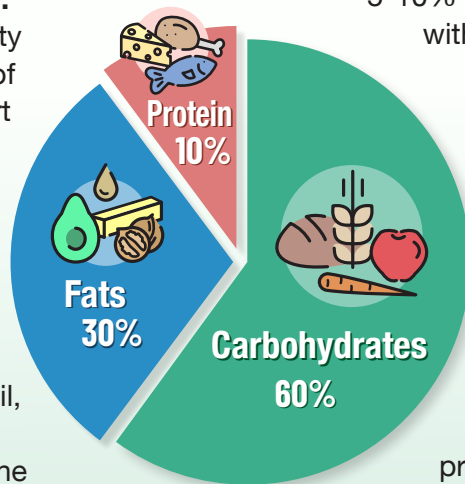
Just enough high-quality protein (0.1-2g per kg of body weight) to support muscle repair and essential functions, reducing the risks of "protein overload."

Fats (30% of calories):

Healthy fats from avocados, nuts, olive oil, and fatty fish provide energy, support hormone production, and enhance brain function through mild ketogenesis.

Carbohydrates (60% of calories):

Nutrient-dense carbs from fruits, vegetables, and whole grains supply energy, fiber, and support gut health.



■ Why Choose the Catalytic Diet?

Unlike high-protein diets that can strain kidneys and disrupt hormonal balance, the Catalytic Diet minimizes protein to essential levels, unlocking powerful metabolic benefits:

- **Boosts Metabolic Hormones:** Elevates fibroblast growth factor 21 (FGF21), improving insulin sensitivity and fat burning.
- **Promotes Fat Loss:** Increases energy expenditure by up to 20%, leading to 5-10% body fat reduction in 1-3 months without muscle loss.
- **Enhances Blood Sugar Control:** Reduces insulin resistance and stabilizes glucose levels, as shown in studies (Sayer et al., 2022).
- **Supports Kidney Health:** Lowers urea production, reducing kidney strain compared to high-protein diets.
- **Improves Brain Function & Mood:** Mild ketogenesis from fats provides efficient brain fuel, enhancing focus and happiness.

■ How Does It Work?

The Catalytic Diet taps into your body's natural power to manage weight and boost metabolism.

1

Protein Reduction

The issue: Most Americans eat way too much meat and protein. By cutting back to just the right amount your body needs, you avoid "protein overload"—and that supercharges a helpful hormone called FGF21 in your liver.

Here's why: Too much protein tells your body everything's fine, so it dials down FGF21. But with optimized protein, your liver senses a mild "need" for more, kicking off a natural response that ramps up FGF21. This hormone helps you burn more energy, curb hunger for extra protein, and fine-tune your metabolism for better health.

2

Mitochondrial Uncoupling

Burns more calories as heat, mimicking a higher metabolic rate for effortless weight management.

3

Balanced Nutrition

Combines healthy fats and carbs to ensure satiety, energy, and essential nutrients, avoiding deficiencies.