

# APPROACHES TO OPTIMIZE NUTRITION

Nutrition is linked to our growth, development, and overall health.<sup>1</sup> But, what's the connection between nutrition, physical activity, and chronic diseases<sup>2</sup>—and how do some of today's popular eating plans fit in?

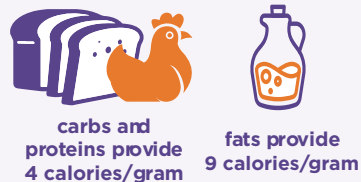
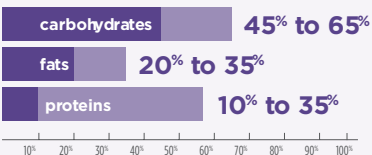
## NUTRITION: a YOU mission

Many nutrition plans can be effective. But the most important factor is you — your unique genetics, insulin response,<sup>3</sup> health goals, and of course, your individual food choices. Before you start, take the following information to heart.

### THREE APPROACHES TO OPTIMIZE NUTRITION

There's no one-size-fits-all nutrition approach.<sup>3-6</sup> Most eating plans fall under three categories.

#### MACRONUTRIENT-BASED



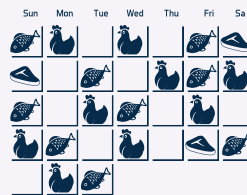
The National Academy of Medicine (NAM) generally recommends an adult's diet consist of 45%-65% carbohydrates, 20%-35% fats, and 10%-35% protein.<sup>6</sup> Each macronutrient gram provides a fixed amount of dietary calories— carbohydrates and proteins each provide approximately 4 calories/

gram, while fats provide 9 calories/gram.<sup>7</sup> Macronutrient-based approaches seek to control the macronutrients ratio in a given eating plan, customized to a person's health goals.

**Carbohydrate-limiting:** Reduces dietary carbs to limit insulin released from the pancreas

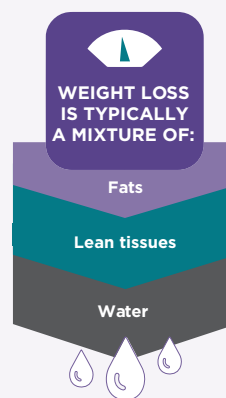
**Fat-limiting:** Often referred to as a high-carb, low-fat (HCLF) diet, total fat intake is limited to roughly 20 grams per day

#### PATTERN-BASED



- Based on overall eating patterns that supply adequate nutrients within energy needs
- Resists labeling desired foods "bad", so as to not deter a person from trying to eat healthier<sup>8</sup>
- Moderation and proportionality are key factors

#### CALORIE-RESTRICTED



- Does not focus on whether a given macronutrient or food type is the cause of weight gain
- It is difficult to predict the amount of weight reduction from a given calorie deficit as weight loss typically comes from losing a mix of fat, lean tissue, and water
- A minimum caloric intake of 1200-1800/day is recommended to avoid the body's starvation response<sup>10</sup>

### DISCOVER THE RIGHT NUTRITION APPROACH FOR YOUR HEALTH GOALS

A health care professional can tailor a nutrition plan to your clinical needs—it's collaboration and commitment that are key to achieving results. This information from the World Health Organization (WHO) on some of today's most popular diets can guide a healthy discussion with your health care professional.

EATING PLAN	DIET TYPE	BENEFITS	CONSIDERATIONS
<b>MACRONUTRIENT-BASED</b> <b>Carbohydrate-limiting</b>	<b>The Ketogenic Diet</b> High in fats and low in carbs, <sup>11</sup> it utilizes fats (70%-80%) as primary source of dietary calories, restricts carbs (5%-10%) and protein (15%-20%), and removes starches.	Weight loss and lowered triglycerides and diastolic blood pressure. <sup>12</sup>	Limits the body's access to glucose and breaks down stored fats.
	<b>The Atkins Diet</b> A low-carb, high-protein approach that focuses on portion control rather than restricted calories.	Weight loss, <sup>14</sup> modest long-term weight loss, <sup>14,15</sup> and favorable effects on blood pressure, HDL cholesterol, triglycerides, and fasting insulin. <sup>14</sup>	For those needing to lose over 40 pounds, or for those who are prediabetic or diabetic, the plan is split into phases to control the amount and type of carbs over time. <sup>13</sup>
<b>MACRONUTRIENT-BASED</b> <b>Fat-limiting</b>	<b>The Ornish Diet</b> Mostly a plant-based eating plan low in saturated fats, high in carbs, <sup>15</sup> and featuring small, frequent meals and portion control.	Shown to result in weight loss and a reduction of the LDL/HDL cholesterol ratio. <sup>14</sup>	Does not restrict calories unless weight loss is desired, may be hard to adhere to long-term, and can be low in calcium. <sup>9</sup>
<b>PATTERN-BASED</b>	<b>DASH<sup>9,17</sup></b> Built on the benefits of a diet rich in protein, fiber, potassium, magnesium, and calcium, reduced sodium, and limited saturated fat. <sup>17</sup>	Associated with decreased heart disease, stroke, and diabetes, as well as lower blood pressure, total cholesterol, LDL-c, A1c, and fasting insulin. <sup>18</sup>	Recommended by international diabetes and cardiovascular medical associations. <sup>18</sup>
	<b>Mediterranean Diet</b> Considered a heart-healthy diet based on Mediterranean-style cooking. <sup>19</sup>	An analysis of more than 1.5 million adults showed that following this diet was linked to reduced risk of cardiovascular and all-cause mortality. <sup>20</sup>	Many scientific organizations encourage healthy adults to adopt this style of eating to prevent major chronic diseases.
	<b>Plant-based</b> Becoming popular for perceived health benefits and humane reasons, these eating approaches include vegan or strict vegetarian diets (those containing no animal products). <sup>21</sup>	Plant-based dietary patterns do tend to result in lower body mass index (BMI), and data support them as a viable option for losing weight and lowering the risk of disease. <sup>21</sup>	Greater weight reduction was found in studies with higher baseline weights, smaller proportions of female participants, or older mean ages of participants.
<b>CALORIE-RESTRICTED</b>	<b>Intermittent Fasting</b> Uses short fasting periods to improve overall health and decrease body fat and/or increase muscle mass. <sup>22</sup>	Decreases in weight and fat have been shown across alternate-day and whole-day fasting. <sup>21</sup> Time-restricted fasting is not as well studied, but data indicates that weight and fat mass will decrease. <sup>22</sup>	Many find it difficult to adjust routines to meet the restricted eating schedule.
	<b>Snack &amp; Meal Replacement Approaches</b> Oral liquid nutrition supplements (ONS) can help with chronic conditions like diabetes and obesity. ONS also are available for snacks or partial meal replacements (PMR), or in combination with any other eating plan. <sup>23</sup>	People on a PMR plan, or a reduced-calorie diet, lost a significant amount of weight, and the risk factors for diseases associated with excess weight or obesity improved in both groups. <sup>22</sup>	There is a broad variety of specialized products for specific populations, such as those with type 2 diabetes. <sup>22,23</sup>

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