

# REViVER

## NUTRITION CHARTER

### Background

Americans have come to rely increasingly on restaurants and take-out food for daily sustenance. According to USDA's Economic Research Service,<sup>1</sup> Americans now get a third of their calories from food purchased and/or eaten outside the home.<sup>2</sup> Unfortunately, these meals tend to be less nutritious than food prepared at home. ReViVer is the exception to that rule, offering a safe haven for those who wish to enjoy eating out without compromising their nutrition or well-being.

A growing number of restaurants are targeting health- and weight-conscious consumers, promising "natural" or "wholesome" ingredients, and "healthy," "nutritious," or "balanced" meals—words with positive connotations but little concrete meaning. ReViVer has set the bar considerably higher by establishing a comprehensive set of specific, evidence-based nutritional guidelines *to which every meal on the menu will conform.*

### Four Food Principles

**Balanced.** Every menu item provides a balance of macronutrients. Specifically, carbohydrates make up 35-50%, fats contribute 25-40%, and protein is 20 to 35% of total calories, with an emphasis on low-glycemic carbohydrates, unsaturated fats, and lean protein.

**Nutritious.** Every menu item provides fruits and vegetables, fiber, and omega-3 fatty acids, proportionate to optimal daily intakes.

**Clean.** Our kitchen never uses hydrogenated oils, refined flours or sugars. Natural sweeteners (honey, maple syrup, agave nectar, or molasses) never account for more than 5% of total calories.

**Pure.** Our meat and fish are never treated with antibiotics or hormones, and our tofu is organic.

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<sup>1</sup> Stewart, H., N. Blisard, and D. Jolliffe. Let's Eat Out Americans Weigh Taste, Convenience, and Nutrition, EIB-19, USDA, Economic Research Service, October 2006.

<sup>2</sup> Lin, B., J. Guthrie, and E. Frazao. Away-From-Home Foods Increasingly Important to Quality of American Diet, AIB-749, USDA, Economic Research Service, January 1999.

# Rationale and Supporting Evidence

## I. Macronutrient Balance

Although low-fat, low-carb, and high-protein diets all have their proponents, a more evenly balanced macronutrient distribution has been demonstrated to offer several nutritional and metabolic advantages while minimizing potential hazards of approaches that emphasize or restrict individual macronutrients more extremely.

**Nutrient Sufficiency.** Gardner, et al., found that subjects following a very low-carb diet were more likely to fall short on thiamine, folic acid, vitamin C, iron, and magnesium. Those following a low-fat diet ended up short-changed on vitamin E, B-12, and zinc. By comparison, subjects who followed a diet with a more balanced macronutrient profile had no increased risk of deficiency. In fact, they actually improved their nutrient status, particularly of vitamins A, E, K, and C.<sup>3</sup>

**Metabolic Benefits.** More recently, Ebbeling, et al., found that a balanced macronutrient diet emphasizing low-glycemic carbs increased baseline metabolism and HDL (“good”) cholesterol and decreased triglycerides compared with a low-fat diet—but without the increases in stress hormones (cortisol) and inflammation markers (CRP) that were observed with a very low-carb diet.<sup>4</sup>

**Advantages of moderate protein.** Although essential biological functions can be maintained with just 10% of calories from protein, increased protein intake offers several advantages, especially in terms of weight management. Higher protein intakes contribute to increased satiety in the hours following a meal, helping to curb subsequent intake. Increased protein consumption also stimulates thermogenesis, resulting in a modest but measurable increase in resting energy expenditure.<sup>5</sup> Diets that are extremely high in protein at the expense of other macronutrients, however, may be deficient in fiber or other essential nutrients, and can increase the risk of dehydration and bone loss.

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<sup>3</sup> Gardner CD, Kim S, et al. Micronutrient quality of weight-loss diets that focus on macronutrients: results from the A TO Z study. *Am J Clin Nutr.* 2010 Aug;92(2):304-12.

<sup>4</sup> Ebbeling CB, Swain JF, Feldman HA, Wong WW, Hachey DL, Garcia-Lago E, Ludwig DS. Effects of dietary composition on energy expenditure during weight-loss maintenance. *JAMA.* 2012 Jun 27;307(24):2627-34.

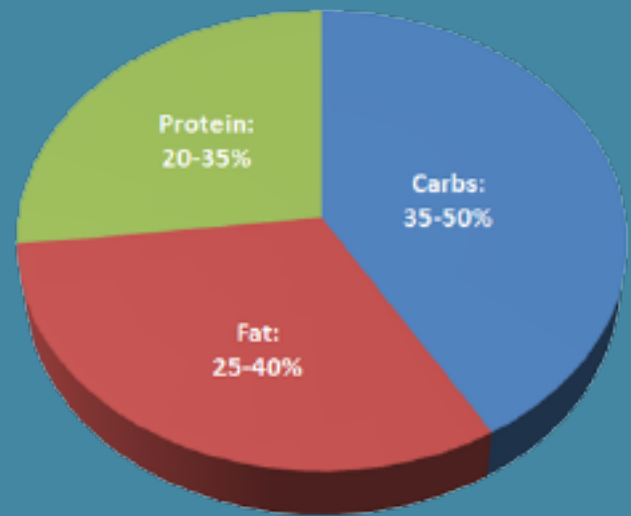
<sup>5</sup> Paddon-Jones D, Westman E, Mattes RD, Wolfe RR, Astrup A, Westerterp-Plantenga M. Protein, weight management, and satiety. *Am J Clin Nutr.* 2008 May;87(5):1558S-1561S.

Advantages of moderate fat. Although fat is more calorie dense than other macronutrients, it also plays a key role in making meals more enjoyable. Diets that contain a moderate amount of fat appear to be more palatable, satisfying, and easier to follow than low-fat diets. Multiple studies<sup>6,7,8</sup> have found that moderate fat diets led to greater long-term compliance and improved weight management compared with low-fat diets.

Advantages of moderate carbohydrates. Diets that are somewhat higher in fat and protein are necessarily somewhat lower in carbohydrates (although not necessarily low-carbohydrate). But even moderate reductions in dietary carbohydrate, particularly refined and high glycemic carbohydrates, have been shown to produce beneficial effects in blood sugar, lipid profiles, and appetite regulation.<sup>9,10,11</sup>

## The ReViVer Macronutrient Balance

Although we recognize that no single dietary profile will be optimal for every individual, we believe a balanced approach, neither high nor low in any one macronutrient, offers the best solution for the most people.



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**6** Shai I, Schwarzfuchs D, et al. Dietary Intervention Randomized Controlled Trial (DIRECT) Group. Weight loss with a low-carbohydrate, Mediterranean, or low-fat diet. *N Engl J Med*. 2008 Jul 17;359(3):229-41.

**7** McManus K, Antinoro L, Sacks F. A randomized controlled trial of a moderate-fat, low-energy diet compared with a low fat, low-energy diet for weight loss in overweight adults. *Int J Obes Relat Metab Disord*. 2001 Oct;25(10):1503-11.

**8** Azadbakht L, Mirmiran P, Esmailzadeh A, Azizi F. Better dietary adherence and weight maintenance achieved by a long-term moderate-fat diet. *Br J Nutr*. 2007 Feb;97(2):399-404.

**9** McLaughlin T, Carter S, et al. Effects of moderate variations in macronutrient composition on weight loss and reduction in cardiovascular disease risk in obese, insulin-resistant adults. *Am J Clin Nutr*. 2006 Oct;84(4):813-21.

**10** Pereira MA, Swain J, et al. Effects of a low-glycemic load diet on resting energy expenditure and heart disease risk factors during weight loss. *JAMA*. 2004 Nov 24;292(20):2482-90.

**11** Agus MS, Swain JF, et al. Dietary composition and physiologic adaptations to energy restriction. *Am J Clin Nutr*. 2000 Apr;71(4):901-7

## II. Macronutrient Quality

Although the balance of macronutrients (carbohydrates, fats, and proteins) is important, there are also important distinctions to be made within the macronutrient categories, especially for carbohydrates and fats.

**Low-glycemic carbohydrates.** In addition to paying attention to the quantity of carbohydrates, it is also essential to consider their quality, or glycemic impact. The speed at which starches and sugars are digested and absorbed into the blood stream has acute effects on blood sugar and insulin levels,<sup>12</sup> and long-term impacts on weight management<sup>13</sup> as well as risk factors for heart disease<sup>14,15</sup> diabetes,<sup>16,17</sup> and other diseases.<sup>18</sup> Accordingly, our menu focuses on low-glycemic carbohydrates, including vegetables, legumes and pulses, and whole, intact grains, while minimizing refined carbohydrates and added sugars.

**Unsaturated Fats.** A number of recent studies have suggested that limiting saturated fat, per se, does not reduce heart disease risk.<sup>19</sup> However, there continues to be evidence to support the superior protective benefits of unsaturated fats.<sup>20</sup> Diets high in monounsaturated fats—which some studies suggest may be preferentially oxidized in the body—are also correlated with healthy body weights.<sup>21</sup> Accordingly, we use monounsaturated-rich oils (olive and canola) as our primary cooking oils.

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**12** Bao J, Atkinson F, Petocz P, Willett WC, Brand-Miller JC. Prediction of postprandial glycemia and insulinemia in lean, young, healthy adults: glycemic load compared with carbohydrate content alone. *Am J Clin Nutr.* 2011 May;93(5):984-96.

**13** Hare-Bruun H, Flint A, Heitmann BL. Glycemic index and glycemic load in relation to changes in body weight, body fat distribution, and body composition in adult Danes. *Am J Clin Nutr.* 2006 Oct;84(4):871-9

**14** Lin PH, Chen C, Young DR, Mitchell D, Elmer P, Wang Y, Batch B, Champagne C. Glycemic index and glycemic load are associated with some cardiovascular risk factors among the PREMIER study participants. *Food Nutr Res.* 2012;56.

**15** Liu S, Willett WC, Stampfer MJ, Hu FB, Franz M, Sampson L, Hennekens CH, Manson JE. A prospective study of dietary glycemic load, carbohydrate intake, and risk of coronary heart disease in US women. *Am J Clin Nutr.* 2000 Jun;71(6):1455-61.

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**17** Salmerón J, Ascherio A, et al. Dietary fiber, glycemic load, and risk of NIDDM in men. *Diabetes Care.* 1997 Apr;20(4):545-50.

**18** Barclay AW, Petocz P, et al. Glycemic index, glycemic load, and chronic disease risk—a meta-analysis of observational studies. *Am J Clin Nutr.* 2008 Mar;87(3):627-37

**19** Siri-Tarino PW, Sun Q, Hu FB, Krauss RM. Meta-analysis of prospective cohort studies evaluating the association of saturated fat with cardiovascular disease. *Am J Clin Nutr.* 2010 Mar;91(3):535-46.

**20** Mente A, de Koning L, Shannon HS, Anand SS. A systematic review of the evidence supporting a causal link between dietary factors and coronary heart disease. *Arch Intern Med.* 2009 Apr 13;169(7):659-69.

**21** Nadiah Moussavi N, Gavino G, Receveur O. Could the Quality of Dietary Fat, and Not Just Its Quantity, Be Related to Risk of Obesity? *Obesity* (2008) 16, 7-15.

### III. Nutrient Density

In addition to macronutrient balance and quality, we've also designed our menu to deliver optimal nutrition with every calorie. Our emphasis on whole, nutrient-dense foods, including fresh fruits and vegetables, pulses, legumes, nuts, seeds, lean protein, and whole, intact grains as the foundation of our menu ensures that each meal supplies a broad range of nutrients. In addition, we've set specific targets for food groups and nutrients that are typically lacking in American diets (fruits, vegetables, fiber, and omega-3 fats), as well as elements that are typically over-consumed, including sodium and added sugars.

We have posited optimal daily intakes for several key food groups and nutrients, using a 2000-calorie diet as our reference point. These nutrient goals are informed by the latest research and recommendations of public health organizations and agencies—including, but not limited to, the USDA's Dietary Reference Intakes. (In some cases, our targets are above and beyond those considered adequate by the USDA.)

We then scaled these target intakes to the calorie content of individual meals. A 500-calorie meal, for example, will provide at least one-quarter of the daily goal. In other words, choose any 2,000 calories from our menu and you'll get 100% of our proposed optimal intakes of these foods and nutrients. Although we don't necessarily expect our customers to eat every meal at ReViVer, we guarantee that every meal you do eat here pulls its weight, nutritionally.

#### **Fresh fruits and vegetables**

Fresh fruits and vegetables deliver more nutrition per calorie than any other food group and yet most Americans fall woefully short of the recommended intake. The average adult gets just over two servings per day instead of the recommended nine, and their nutrition suffers as a result. A great number of the most common nutrient inadequacies in the American diet could be addressed in a single swipe, simply by increasing the consumption of fruits and vegetables. As just one example, data from the National Health and Nutrition Examination Survey (NHANES) indicate that only 3% of Americans are getting recommended amount of potassium. Those who consume the recommended amounts of fruits and vegetables, however, are much more likely meet or exceed their daily potassium needs. Fruits and vegetables are also an important source of fiber, vitamin C, carotenoids and other antioxidants, folate, as well as innumerable phytonutrients not available from any other food sources.

Diets high in fruits and vegetables have been shown to reduce the risk of cardiovascular disease,<sup>22</sup> stroke,<sup>23</sup> type 2 diabetes,<sup>24</sup> and osteoporosis.<sup>25</sup> Fruits and vegetables also tend to be high in water, a property that helps diners feel full on fewer calories,<sup>26</sup> and studies suggest that eating more fruits and vegetables may promote long term weight management.<sup>27,28</sup> Our promise: Every item on our menu incorporates fruits and/or vegetables in quantities proportionate to an optimal intake of 9 servings per day.

## Fiber

Adequate fiber intake supports bowel health, reduces the risk of cardiovascular disease, cancer, and diabetes, and promotes healthy gut ecology by supporting beneficial bacteria in the intestines.<sup>29</sup> Fiber increases both the sense of fullness after a meal and extends the period of satiation before hunger returns.<sup>30</sup> Diets higher in fiber appear to be protective against obesity.<sup>31</sup> Americans, however, consume just half of the recommended amount of fiber on average.

Our promise: Our emphasis on fruits, vegetables, whole grains, and legumes naturally result in meals that are high in fiber. Nonetheless, given the importance of this dietary component, we ensure that each meal provides fiber consistent with an intake of 30 grams per day, which is roughly double the typical American intake.

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**24** Harding AH, Wareham NJ, et al. Plasma vitamin C level, fruit and vegetable consumption, and the risk of new-onset type 2 diabetes mellitus: the European prospective investigation of cancer--Norfolk prospective study. *Arch Intern Med*. 2008 Jul 28;168(14):1493-9.

**25** Prynne CJ, Mishra GD, O'Connell MA, Muniz G, Laskey MA, Yan L, Prentice A, Ginty F. Fruit and vegetable intakes and bone mineral status: a cross sectional study in 5 age and sex cohorts. *Am J Clin Nutr*. 2006 Jun;83(6):1420-8.

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**28** Kahn HS, Tatham LM, et al. Stable behaviors associated with adults' 10-year change in body mass index and likelihood of gain at the waist. *Am J Public Health*. 1997 May;87(5):747-54.

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**30** Howarth NC, Saltzman E, Roberts SB. Dietary fiber and weight regulation. *Nutr Rev*. 2001 May;59(5):129-39.

**31** Davis JN, Hodges VA, Gillham MB. Normal-weight adults consume more fiber and fruit than their age- and height-matched overweight/obese counterparts. *J Am Diet Assoc*. 2006 Jun;106(6):833-40.

## Omega-3

The omega-3 family of polyunsaturated fats, which includes the essential fatty acid alpha-linolenic acid (ALA) as well as longer-chain derivatives EPA and DHA, has been the subject of extensive research. Omega-3 fats support the production of anti-inflammatory and anti-thrombotic prostaglandins which reduce inflammation and inhibit blood clotting. Higher intakes of omega-3 fats have been linked to reduced risk of heart disease,<sup>32</sup> improved outcomes in diabetes,<sup>33</sup> and relief from inflammatory joint pain.<sup>34</sup>

Omega-3 and Omega-6 fatty acids have opposing and complementary functions and compete for the same enzymatic pathways. Some research suggests that an over-abundance of omega-6 relative to omega-3 may be deleterious.<sup>35</sup> As part of our commitment to balanced nutrition, we limit the use of omega-6-rich oils and feature omega-3-rich foods.

Our promise: Each meal provides omega-3 consistent with an intake of 2 grams per day, from whole food sources including fish, flax, and walnuts. This goal is significantly higher than the adequate Intake established by the USDA, and consistent with the more aggressive recommendations of several international agencies, including the World Health Organization and the European Commission.

## Sodium

Experts are divided on the importance of limiting sodium. The 2010 Dietary Guidelines for Americans<sup>36</sup> emphasized sodium reduction as a primary goal, yet a recent meta-analysis suggests that interventions to reduce sodium in the general population actually do very little to improve health outcomes.<sup>37</sup>

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**32** Mozaffarian D. Does alpha-linolenic acid intake reduce the risk of coronary heart disease? A review of the evidence. *Altern Ther Health Med.* 2005 May-Jun;11(3):24-30

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**35** Ramsden CE, Hibbeln JR, Majchrzak-Hong SF. All PUFAs are not created equal: absence of CHD benefit specific to linoleic acid in randomized controlled trials and prospective observational cohorts. *World Rev Nutr Diet.* 2011;102:30-43.

**36** U.S. Department of Agriculture and U.S. Department of Health and Human Services. *Dietary Guidelines for Americans, 2010. 7th Edition.* Washington, DC: U.S. Government Printing Office, December 2010

**37** cott Kahan, Yoni Freedhoff; Review: Interventions to reduce dietary salt do not reduce mortality or morbidity. *Annals of Internal Medicine.* 2012 Jan;156(2):JC1-4.

Independent analysis of the data by the Cochrane Collaboration concludes that “cutting down on the amount of salt has no clear benefits in terms of likelihood of dying or experiencing cardiovascular disease.”<sup>38</sup> Analysis by the Centers for Disease Control further reveals that the risks associated with higher sodium intakes largely disappear in those who also have high potassium intakes.<sup>39</sup>

**Our promise:** We emphasize herbs, citrus, and other natural ingredients that allow us to deliver maximum flavor without excessive sodium. More importantly, our emphasis on fresh fruits, vegetables, and whole foods ensures a favorable potassium-to-sodium ratio. With the exception of our shrimp dishes, all of our meals have a 1:1 (or higher) ratio of potassium to sodium. (Like all shrimp, ours is treated with salt to preserve its flavor and texture.)

## Added Sugars

There is wide-spread agreement among researchers, health policy experts, and clinicians that sharply curtailing our consumption of added sugars (including “natural” sources such as honey, agave, and maple syrup) is an urgent public health priority. Concentrated sweeteners are a source of empty and excess calories, contributing to obesity, heart disease, and type 2 diabetes in both adults and children.<sup>40</sup> Americans currently consume upwards of 88 grams (22 teaspoons) of added sugars every day, with sugar-sweetened beverages accounting for about half of this. The World Health Organization suggests limiting added sugars to 10% of calories, or approximately 50 g per day. Given that the majority of Americans are overweight and at increased risk of heart disease and type 2 diabetes, the American Heart Association suggests recommends limiting added sugars to just 5% of calories, or 25 grams per day.

**Our promise:** Nothing on our menu contains more than 5% of calories from added sugars--including “natural” sweeteners like honey, maple syrup, molasses, or agave. Most of our beverages are naturally non-caloric (mineral water and flavored seltzers) or are sweetened with stevia and/or sugar alcohols. In addition, we carry 100% natural fruit juice and coconut water.

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<sup>38</sup> Taylor RS, Ashton KE, Moxham T, Hooper L, Ebrahim S. Reduced dietary salt for the prevention of cardiovascular disease. Cochrane Database of Systematic Reviews 2011, Issue 7. Art. No.: CD009217.

<sup>39</sup> Yang Q, Liu T, Kuklina EV, et al. Sodium and Potassium Intake and Mortality Among US Adults: Prospective Data From the Third National Health and Nutrition Examination Survey. Arch Intern Med. 2011;171(13):1183-1191

<sup>40</sup> Johnson RK, Appel LJ, et al. American Heart Association Nutrition Committee of the Council on Nutrition, Physical Activity, and Metabolism and the Council on Epidemiology and Prevention. Dietary sugars intake and cardiovascular health: a scientific statement from the American Heart Association. Circulation. 2009 Sep 15;120(11):1011-20.



## Trans Fats

Similarly, there is little controversy over the fact that the trans fatty acids in artificially hydrogenated vegetable oils are the most dangerous form of fat and that no amount can really be considered healthful. Lawmakers are now considering legislation to remove this ingredient from the food supply, rules that would take months or years to go into effect. We see no reason to wait.

Our promise: You will not find hydrogenated oils in any meal we serve.

## Specific Nutrient Targets and Tolerances

Calories	Fiber (g)	Omega 3 (mg)	Fruits & Veg (servings)	Sugar (g)
2,000	30	2,000	9	<25

## The Nutrient Score

In addition to the specific commitments outlined above, we strive to deliver maximum nutrition with every calorie. Every meal is given a Nutrient Score, a unique metric that reflects a meal's nutrient density.

The score is based on 10 key nutrients, representing a broad range of nutrient types and functions, including vitamins (both fat- and water-soluble), minerals, antioxidants, electrolytes, methylating agents, essential fatty acids, and prebiotics. These nutrients all work together to optimize health and function. Accordingly, a meal must be high in a broad range of nutrients and low in added sugars and other empty calories in order to score well.

Targets are set for each nutrient based on the recommended daily intake for that nutrient and the number of calories in the meal. We use 2,000 calories/day as our benchmark. If a meal has 500 calories, the target for each nutrient is 25% of the daily value. Each nutrient is then given a score, based on how much of that nutrient the meal provides compared to the target (100% = 10). The scores for all ten nutrients are added, for a maximum score of 100.

## Nutrients Included in the Nutrient Score

<b>Vitamin A</b>	Target: 5000 IU/day
<b>Vitamin C</b>	Target: 60mg/day
<b>Vitamin E</b>	Target: 30 IU/day
<b>Folate</b>	Target: 400 mcg/day.
<b>Calcium</b>	Target: 1000 mg/day
<b>Magnesium</b>	Target: 500 mg/day
<b>Potassium</b>	Target: 3500 mg/day
<b>Iron</b>	Target: 18 mg/day
<b>Omega-3 fats</b>	Target: 2,000 mg/day
<b>Fiber</b>	Target: 25 g/day

## Order Whatever Looks Good: You Can't Make a Mistake Here

Some have suggested that the solution to American's nutritional insolvency is for people to cook at home and be less reliant on prepared foods. While cooking and eating at home offers many benefits and pleasures, eating out is—and will clearly remain—a central feature of our culture. Some diners make choices based on their health and nutrition goals, but many others are simply looking for convenience and enjoyment. **A popular, casual restaurant offering *only* balanced, nutrient-dense meals in reasonable portion sizes can be a key player in promoting greater health and well-being--even among diners who are not focused on nutrition or weight management.**

At the same time, we recognize that food is only nutritious if it gets eaten. Our commitment to optimal nutrition is matched by an equal commitment to culinary creativity and excellence. The ReViVer team includes highly accomplished culinary and restaurant professionals, working alongside a licensed nutritionist, to ensure that our meals not only uphold our nutritional principles but are also delicious and satisfying.