

CONTENTS

INTRODUCTION	<u>7</u>
GUT MICROBIOTA	<u>8</u>
Biology 101	<u>10</u>
Factors that Influence the Composition of Gut Microbiota	<u>17</u>
INTERACTIONS BETWEEN MICROBIOTA AND HEALTH	<u>31</u>
Microbiota, Obesity and Diabetes	<u>32</u>
Microbiota and Inflammatory Bowel Diseases	<u>38</u>
Microbiota and Cancer	<u>42</u>
Microbiota and Allergies	<u>46</u>
Microbiota and Psychological Health	<u>50</u>
DIETARY RECOMMENDATIONS	<u>53</u>
Vary Your Diet	<u>54</u>
Fill Up on Fiber	<u>56</u>
Eat a Lot of Vegetables and Fruit	<u>58</u>
Eat Less Meat and More Meat Substitutes	<u>60</u>
Make Plenty of Room for Legumes	<u>62</u>
Discover a Wide Variety of Grain Products	<u>64</u>
Consume Lacto-Fermented Foods on a Regular Basis	<u>66</u>
Focus on Probiotic and Prebiotic Foods and Supplements	<u>72</u>
Reduce Sugar and Avoid Sugar Substitutes	<u>74</u>
Limit Fast Food and Cook More Often	<u>76</u>
Foods to Favor	<u>78</u>
Foods to Limit	<u>79</u>
21 DAYS OF MENUS	<u>81</u>

RECIPES — 52 HEALTHY IDEAS **105**
Smoothies and Breakfasts 106
Main Courses 126
Side Dishes 176
Desserts and Snacks 180

ABOUT THE AUTHOR AND COLLABORATORS **209**

ACKNOWLEDGMENTS **211**

RESOURCES **212**

RECIPE INDEX **215**



INTRODUCTION

Microbiota: Remember this term, because you'll be hearing a lot more about it. This is no passing fad, but a revolution. In terms of the human body, microbiota are as important as the discovery of a new planet to astronomers. They are the subject of much ongoing research and the missing link in the nutrition-health equation. The more we discover about them, the more they change our understanding of the human body.

The term *microbiota* (*micro* for "small," *bio* for "life") refers to the microscopic life inhabiting the human body. There are thousands of billions of bacteria, viruses, fungi and other microorganisms that flourish inside us.

The big breakthrough is not the discovery of these microorganisms in the gut — their presence was confirmed thousands of years ago — but our understanding of the impact this microscopic life has on our health. Gut microbiota, which used to be called intestinal microbial flora, are now considered an entirely separate organ. Like the heart, liver and brain, they play a major role in how the body functions.

The ability to establish or restore balanced and well-functioning microbiota could help the medical community prevent and treat many diseases simply by prescribing an appropriate diet or, in more serious cases, by transplanting microbiota from a healthy individual to a sick individual.

According to current data, nutrition is the principal factor that influences the composition of microbiota. Depending on what we eat, we send out invitations to an assortment of microbes, bacteria and their associates. These microorganisms help determine how our body will benefit from foods and use their nutrients.

In light of the most recent scientific knowledge, this book aims to provide a better understanding of gut microbiota — the different roles they play, how they function, how they affect our health and specifically how nutrition affects their composition.

You will also discover 21 days of menus and more than 50 recipes to help you make a smooth transition to a diet that encourages the proliferation of good bacteria in your gut with a view to improving your health.

"All disease begins in the gut."

Hippocrates

GUT MICROBIOTA

In the broad sense, microbiota is a group of microorganisms (or microbes) that populate an ecosystem. In the same way that oceans, lakes and forests are ecosystems on Earth, the mouth, skin and gut are ecosystems within the human body. Each of them is home to unique and distinct communities of microbes. Contrary to popular belief, the term *microbe* (literally “small life”) is not a synonym for a hostile pathogen. It encompasses bacteria, viruses, microscopic fungi and all other microorganisms.

The idea is mind-boggling, but the gut is home to about 40,000 billion (and maybe more) microorganisms, which may weigh more than 3 lbs (about 1.5 kg). Just imagine — there are at least five times more microbes in your gut than human beings on Earth!

The gut is therefore much more than a simple tunnel from which we extract what is good in food and discard the rest as digestive waste. These billions of microorganisms in the gut are not there to abuse our hospitality. We offer them food and shelter, and in return, they do so much for us. Everyone is a winner!

Everyone is a winner in a perfect world, that is. In fact, our microbiota can do us as much harm as good. Research has shown that, among their countless benefits, microbiota improve the function of the immune system, produce anti-inflammatory substances and neutralize certain carcinogens. According to the latest scientific data, however, an imbalance in the microbial population can lead to obesity, diabetes, allergies, inflammatory bowel disease, cardiovascular problems, depression and even more — an “even more” that only yesterday was almost inconceivable. Research is in full swing, and the preliminary results are looking promising.

At the moment, studies have only uncovered the tip of the iceberg. The scientific community acknowledges that microscopic life in the gut has been ignored for a long time in medicine. But the tide is turning!

21 DAYS OF MENUS

The menus in this book are designed to help you have a varied diet that is also high in dietary fiber. These menus include many fruits, vegetables, legumes and whole grains.

The menus feature a number of recipes that combine meat and legumes to help you gradually become accustomed to legumes.

There are no suggested portions or quantities — these are for you to decide. Your needs are unique. Eat your fill in a balanced way. Feel free to eat the suggested snacks and desserts or leave them out. The morning snack always consists of fruit, but if you aren't hungry, you can have it later in the day. You can choose any fruit. The ideal way is to vary the fruit from one day to the next, and if possible according to the seasons.

You will see that the lunchtime meals are often leftovers from the previous evening. You should therefore adjust recipe servings accordingly, doubling the amounts if necessary, so that you have leftovers for the next day.

DAY 1

BREAKFAST



Smoothie Bowl ([p. 110](#))
Quinoa Granola ([p. 112](#))

Snack
Fruit



LUNCH



Green Salad with Chicken and Artichoke Hearts ([p. 166](#))
served with whole-grain bread

Snack
Nuts



DINNER



Tilapia on Bed of Lentils with Caramelized Beets ([p. 160](#))
served with green vegetables

Dessert or Snack
Grilled Pineapple ([p. 196](#))
Green tea



TILAPIA ON BED OF LENTILS

with Caramelized Beets

5 servings • PREPARATION: 25 minutes • COOKING TIME: 1 hour 15 minutes

INGREDIENTS

5 tilapia fillets (1 lb/454 g)

2 tsp lemon juice

1 cup (250 ml) dried green lentils, rinsed

3 cups (750 ml) vegetable broth

For the marinated beets

6 medium beets, cut in 1-inch (2.5 cm) cubes

2 tbsp olive oil

Pinch salt

2 tbsp balsamic vinegar (preferably thick)

For the cilantro gremolata

1 green onion, coarsely sliced

1 clove garlic

¼ tsp hot pepper paste

1 cup (250 ml) fresh cilantro

2 tbsp lime juice

2 tbsp olive oil

Salt and black pepper

METHOD

Position rack in middle of oven and pre-heat to 375°F (190°C). Line two baking sheets with parchment paper.

On one of the prepared baking sheets, coat beets in oil and add salt. Roast in oven for 30 minutes, stirring after 15 minutes.

Sprinkle with balsamic vinegar. Increase heat to 450°F (230°C) and continue roasting for 10 minutes.

On the other prepared baking sheet, sprinkle tilapia with lemon juice and bake for 10 minutes at the same time as the beets at 450°F (230°C).

Meanwhile, in a saucepan over high heat, cook lentils in vegetable broth. Cover and bring to a boil. Reduce heat to low and let simmer for 20 to 25 minutes. Drain if necessary.

In a blender, purée all gremolata ingredients.

On each dish, place a serving of beets and lentils. Lay a tilapia fillet on top and garnish with 1 tbsp gremolata.

Serve with green vegetables or a green salad.



TIPS

- Use cilantro gremolata in sandwiches, on pasta or in a salad. Mixed with plain yogurt, it makes an excellent dip.
- Cilantro gremolata keeps in the refrigerator for one week. To prevent surface from blackening due to contact with air, add a thin layer of olive oil on top.

Nutrition Facts

Per serving

Amount

Calories	425
Fat	15 g
Carbohydrate	40 g
Fiber	6 g
Protein	34 g
Sodium	479 mg

