

# Intermittent Fasting



Safely shed weight and keep it off

Flip on your metabolic switch

Make healthy and delicious recipes

Janet Bond Brill PhD, RDN, FAND, LDN

Nationally recognized nutrition and fitness expert and best-selling author





# Intermittent Fasting

by Janet Bond Brill, PhD, RDN, FAND

Nationally recognized nutrition and fitness expert



#### **Intermittent Fasting For Dummies®**

Published by: John Wiley & Sons, Inc., 111 River Street, Hoboken, NJ 07030-5774, www.wiley.com

Copyright © 2021 by John Wiley & Sons, Inc., Hoboken, New Jersey

Published simultaneously in Canada

No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, scanning or otherwise, except as permitted under Sections 107 or 108 of the 1976 United States Copyright Act, without the prior written permission of the Publisher. Requests to the Publisher for permission should be addressed to the Permissions Department, John Wiley & Sons, Inc., 111 River Street, Hoboken, NJ 07030, (201) 748-6011, fax (201) 748-6008, or online at http://www.wiley.com/go/permissions.

Trademarks: Wiley, For Dummies, the Dummies Man logo, Dummies.com, Making Everything Easier, and related trade dress are trademarks or registered trademarks of John Wiley & Sons, Inc., and may not be used without written permission. All other trademarks are the property of their respective owners. John Wiley & Sons, Inc., is not associated with any product or vendor mentioned in this book.

LIMIT OF LIABILITY/DISCLAIMER OF WARRANTY: WHILE THE PUBLISHER AND AUTHOR HAVE USED THEIR BEST EFFORTS IN PREPARING THIS BOOK, THEY MAKE NO REPRESENTATIONS OR WARRANTIES WITH RESPECT TO THE ACCURACY OR COMPLETENESS OF THE CONTENTS OF THIS BOOK AND SPECIFICALLY DISCLAIM ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. NO WARRANTY MAY BE CREATED OR EXTENDED BY SALES REPRESENTATIVES OR WRITTEN SALES MATERIALS. THE ADVICE AND STRATEGIES CONTAINED HEREIN MAY NOT BE SUITABLE FOR YOUR SITUATION. YOU SHOULD CONSULT WITH A PROFESSIONAL WHERE APPROPRIATE. NEITHER THE PUBLISHER NOR THE AUTHOR SHALL BE LIABLE FOR DAMAGES ARISING HEREFROM. SOME OF THE EXERCISES AND DIETARY SUGGESTIONS CONTAINED IN THIS WORK MAY NOT BE APPROPRIATE FOR ALL INDIVIDUALS, AND READERS SHOULD CONSULT WITH A PHYSICIAN BEFORE COMMENCING ANY EXERCISE OR DIETARY PROGRAM.

For general information on our other products and services, please contact our Customer Care Department within the U.S. at 877-762-2974, outside the U.S. at 317-572-3993, or fax 317-572-4002. For technical support, please visit https://hub.wiley.com/community/support/dummies.

Wiley publishes in a variety of print and electronic formats and by print-on-demand. Some material included with standard print versions of this book may not be included in e-books or in print-on-demand. If this book refers to media such as a CD or DVD that is not included in the version you purchased, you may download this material at http://booksupport.wiley.com. For more information about Wiley products, visit www.wiley.com.

Library of Congress Control Number: 2020946748

ISBN: 978-1-119-72409-4

ISBN: 978-1-119-72403-2 (ebk); ISBN: 978-1-119-72410-0 (ebk)

Manufactured in the United States of America

10 9 8 7 6 5 4 3 2 1

# **Contents at a Glance**

Introd	uction
CHAPTER 1:	Getting Started with Intermittent Fasting
	Assessing Your Goals
	Verifying Calories As Your Last Resort
CHAPTER 4:	Understanding the Link Between Weight and Health
	Grasping the Health Benefits
	rmittent Fasting57
	Navigating the Science of Intermittent Fasting
	Identifying the Health Benefits to Intermittent Fasting
CHAPTER 7:	Determining Whether Intermittent Fasting Is Right for You
Part 3:	<b>Evaluating the Most Popular</b>
	ittent Fasting Plans91
	Knowing What to Eat During Your Fasting and Feasting Times 93
	Trying the 16:8 Time-Restricted Intermittent Fasting Plan
CHAPTER 10:	Enlisting the Warrior Intermittent Fasting Plan
CHAPTER 11:	Attempting the Alternate Day Intermittent Fasting Plan
CHAPTER 12:	Applying the 5:2 Intermittent Fasting Plan123
CHAPTER 13:	Starting the Eat-Stop-Eat Intermittent Fasting Plan127
Part 4:	Customizing Your Complete
	ittent Fasting Plan131
	Combining Daily Exercise with Your Intermittent Fasting Plan 133
	Paying Attention to Possible Speed Bumps When Intermittent
	Fasting145
CHAPTER 16:	Changing Your Connection with Food155
Part 5:	Intermittent Fasting Made Easy: Eating,
	ng, and Cooking165
	Adding the Mediterranean Diet to Your Intermittent Fasting Plan167
	Going Grocery Shopping, Healthfully
	Stocking Your Fridge, Freezer, and Pantry with Nutrition
	Making Cooking at Home a Delicious Habit203
	Starting Your Healthy Recipe Collection
	Creating Your 5:2 Intermittent Fasting Recipes253

Part 6: Using Tools for Success	57
снартея 23: Tracking Your Intermittent Fasting Progress	59
снартек 24: Getting Support during Your Intermittent Fast	77
Part 7: The Part of Tens	35
Index29	97

# Recipes at a Glance

Avocado Shrimp Ceviche	. 215
Garlic Bruschetta Bread	. 216
Eggplant Dip	. 217
Roasted Eggplant Tomato Stack	. 218
Watermelon Feta Salad	
Citrus Asian Tempeh Salad	. 221
Tuna Salad with Tofu	. 222
Couscous Red Bean Salad	. 223
Bulgur Wheat Citrus Salad	. 224
Split Pea Soup	. 225
Lentil Soup	. 226
Lentil Falafel Pita Sandwich	. 227
Portobello Mushroom Burgers	. 228
Mushroom Barley Risotto with Chicken	
Zucchini Pizza	
Tomato Arugula Flatbread	. 232
Eggplant Pasta	. 233
Zucchini Boats	. 234
Teriyaki Grilled Salmon	. 236
Grilled Swordfish	. 237
Sautéed Branzino	. 238
Roasted Cauliflower	. 240
Roasted Brussels Sprouts	. 241
Braised Broccoli Rabe	. 242
Quinoa with Currants and Walnuts	
Sweet Potato Steak Fries	. 244
Dark Chocolate Brownies with Walnuts	. 246
Angel Food Cake Pops	. 247
Dark Chocolate–Dipped Strawberries	
European Hot Chocolate	
Frozen Date Bars	
Berry Citrus Yogurt Parfait	
Pumpkin Pie Greek Vogurt	

Cajun Grilled Chicken	55
Honey-Crusted Salmon with Spinach	56
Farro Salad	57
Cheesy Bean Burrito2	58
Whole Grain Linguini with Cannellini Beans2	59
Avocado Hummus Sandwich	61
Whole Grain Linguini with Clams	62
Bean and Turkey Slow Cooker Chili2	63
Sweet Pomegranate Chicken with Couscous2	64
Chocolate Berry Protein Smoothie	65

# **Table of Contents**

INTRODUCTION  About This Book.  Foolish Assumptions.  Icons Used in This Book  Beyond the Book.  Where to Go from Here	3
PART 1: GETTING STARTED WITH INTERMITTENT FASTING	5
CHAPTER 1: The Lowdown on Intermittent Fasting, Just the Basics  Defining Exactly What Intermittent Fasting Is (and Isn't)  Recognizing the nuts and bolts of intermittent fasting.  Delving deeper into how intermittent fasting works  Considering Your Intermittent Fasting Options  Answering Your Frequently Asked Questions.  Taking the First Steps of Change.	9
CHAPTER 2: Assessing Your Goals.  Understanding What a Healthy Weight Range Is for You  Taking a self-inventory.  Considering your reasons for weight loss.  Setting your weekly SMART goals.  Calculating Your Healthy Weight Range.  Making friends with the scale.  Guesstimating accurately.  Using your Body Mass Index to see whether you're overweight.  Gauging your inches to link your weight and health.  Determining what a healthy percentage of body fat is for you	20 21 22 25 26 27
CHAPTER 3: Verifying Calories As Your Last Resort  Examining How Your Intermittent Fasting Plan Is Going.  Explaining calorie surplus and deficit.  Studying Calories 101  Balancing your equation.  Calculating Your Ideal Calorie Range  Curbing your calories in  Expending your calories out  Following the 80:20 rule  Trying just one more time	34 36 36 37 37

CHAPTER 4: Understanding the Link Between Weight and Health45
Discovering What the Scientists Know about Being Overweight
PART 2: GRASPING THE HEALTH BENEFITS OF INTERMITTENT FASTING
<b>CHAPTER 5: Navigating the Science of Intermittent Fasting</b> 59
Discerning What The Scientists Know about Intermittent Fasting
CHAPTER 6: Identifying the Health Benefits to Intermittent Fasting69
Comprehending Why Intermittent Fasting Is a Powerful Weight-Loss Tool
CHAPTER 7: Determining Whether Intermittent Fasting Is Right for You81
Getting Permission from Your Personal Doctor

	S: EVALUATING THE MOST POPULAR MITTENT FASTING PLANS9
CHAPTER 8:	Knowing What to Eat During Your Fasting and Feasting Times9
	Keeping Your Goals
	Fasting goal — Deplete your glucose stores
	Feasting goal — Consume healthful foods
	What You Can Eat When You're Fasting94
	Drinking your way through your intermittent fast
	Loving black coffee
	Knowing what to eat: Some quick tips
	Why eating a plant-based diet is smart
	Weighing Keto and Intermittent Fasting — Not a Healthy
	Combination
	fasting don't mix10
	What's wrong about keto: What you shouldn't
	and should be eating102
CHAPTER 9:	Trying the 16:8 Time-Restricted
	Intermittent Fasting Plan109
	Clarifying What Time-Restricted Intermittent Fasting Is100
	Trying the 16:8 time-restricted plan
	Seeing why the 16:8 plan is easy
	Losing the fat and keeping the muscle
	Visualizing a Time-Restricted Fasting Plan — A Sample
	1-Week Calendar
CHARTER 10	Enlisting the Warrior Intermittent
CHAPTER 10.	Fasting Plan11
	Describing What The Warrior Intermittent Fasting Plan Is
	Eyeing the Pros and Cons to the Warrior Intermittent
	Fasting Plan113
	Exercising during Your Warrior Intermittent Fast
	Calendar
CHAPTER 11:	Attempting the Alternate Day Intermittent
	Fasting Plan11
	Explaining the Different Versions of Alternate Day Intermittent Fasting Plans
	Understanding the Science of the Alternate Day
	Intermittent Fasting Plan118

Benefiting from the Alternate Day Intermittent Fasting Plan	21
CHAPTER 12: Applying the 5:2 Intermittent Fasting Plan	23 24 25
CHAPTER 13: Starting the Eat-Stop-Eat Intermittent Fasting Plan	27 28 29
PART 4: CUSTOMIZING YOUR COMPLETE INTERMITTENT FASTING PLAN	31
CHAPTER 14: Combining Daily Exercise with Your Intermittent Fasting Plan  Capturing What You Need to Know about Intermittent Fasting and Exercise	34 36 37 38 39 40 41 43 43
CHAPTER 15: Paying Attention to Possible Speed Bumps When Intermittent Fasting	46 46 48 49
Finding Your Stress Relievers 1'	ר ר

CHAPTER 16: Changing Your Connection with Food	155
Assessing Your Relationship with Food	155
Determining what kind of eater you are	156
Taking control of emotional eating behaviors	157
Breaking Your Behavior Chain	158
Rearranging your food environment	
Changing unhealthy eating behaviors	
Getting a handle on your hunger	
Diving into Mindful Eating	
Practicing mindful eating techniques	
Reviewing the habits of healthy eaters	103
PART 5: INTERMITTENT FASTING MADE EASY:	
EATING, SHOPPING, AND COOKING	165
CHAPTER 17: Adding the Mediterranean Diet to Your	
Intermittent Fasting Plan	167
Incorporating the Mediterranean Diet into Your	
Intermittent Fasting Plan	
Grasping the Laws on Lean Protein	
Eat more plant and fish protein	
For vegans and vegetarians: Focus on plant protein	
Add healthy fish protein	
Making Extra-Virgin Olive Oil (EVOO) Your Main Fat	
Keeping Those Grains Whole  Powering Up with Plants	
CHAPTER 18: Going Grocery Shopping, Healthfully	181
Finding Your Way around the Supermarket	182
Shopping with a plan	
Analyzing where everything is located in the supermarket	
Organizing your shopping cart	
Favoring farmers' markets	
Knowing How to Read Labels	
Sizing up the ingredient list	
Searching for sugarSlashing the sodium	
Rating the frozen meals	
Going organic	
	,55
CHAPTER 19: Stocking Your Fridge, Freezer,	
and Pantry with Nutrition	
Organizing a Healthy Refrigerator	
Putting things in place	
Establishing a well-stocked freezer	197

	Arranging a Healthy Pantry
	Capitalizing on categories
	Knowing what and where to store rood200
CHAPTER 20:	Making Cooking at Home a Delicious
	<b>Habit</b>
	Simplifying Your Cooking and Your Life204
	Cookware
	Utensils
	Tools and gadgets
	Microwave cooking
	Roasting and baking
	Boiling
	Grilling
	Sautéing and stir-frying210
	Steaming
	Nutrient Retention
CHAPTER 21:	<b>Starting Your Healthy Recipe Collection</b> 213
	Serving Up Appetizers for Intermittent Fasting214
	Savoring Salads, Soups, and Sandwiches
	Planning Plant-Based Entrees for Intermittent Fasting
	Making Mediterranean Side Dishes for Intermittent Fasting
	Diving into Desserts and Snacks for Intermittent Fasting245
CHAPTER 22.	Creating Your 5:2 Intermittent Fasting
	Recipes
	Making 500-Calorie Meals for Women254
	Creating 600-Calorie Meals for Men260
PART 6	: USING TOOLS FOR SUCCESS
CHAPTER 23:	Tracking Your Intermittent Fasting
	Progress
	Journaling for Success270
	Graphing Your Progress
	Monitoring your SMART goals
	Tenening in the bigger i lettire — Reconing Hack of Willy

CHAPTER 24: Getting Support during Your Intermittent Fast.	277
Getting Help from a Professional	
Enlisting Friends and Family	
Dealing with Setbacks	280
PART 7: THE PART OF TENS	283
CHAPTER 25: Ten Myths about Intermittent Fasting	
Debunked	
Intermittent Fasting Puts Your Body Into Starvation Mode	
Skipping Breakfast Makes You Fat	286
Intermittent Fasting Slows Metabolism	200
and Frequent Meals Boost It	
You Need to Eat Protein Every Three Hours to Gain Muscle	
Intermittent Fasting Makes You Lose Muscle	
Intermittent Fasting Triggers Excessive	207
Hunger and Makes You Overeat	
Intermittent Fasting Is Harmful to the Brain	289
Intermittent Fasting Causes Dangerous	200
Drops in Blood Sugar	
intermittent rasting is 100 hard	290
CHAPTER 26: Ten Healthiest Superfoods to Include	
When Intermittent Fasting	291
Black Coffee	292
Spinach	
Quinoa	
Extra-Virgin Olive Oil (EVOO)	
Black Beans	
Beets	
Nuts and Seeds	
Blackberries	
Lentils	
	3
INDEX	297

# Introduction

ongratulations, you've come to the right place if you want to lose weight and body fat, get more fit, and improve your health! Fasting has been used throughout history to promote weight loss and increase longevity. Intermittent fasting, currently one of the world's most popular health and fitness trends, is a newer style of fasting that has gained considerable recognition in recent years, because many people find these regimens easier to follow than traditional, highly restrictive, calorie-counting diets. It's an uncomplicated concept, which makes it simple to follow without the deprivation associated with other diets. Translation: Intermittent fasting equals freedom! Intermittent fasting is not a diet in the conventional sense, but rather an eating pattern — a timed approach to eating.

That's why intermittent fasting has generated such a positive buzz — anecdotes of its effectiveness have proliferated around the globe. With intermittent fasting having become the go-to lifestyle, as a lifestyle research doctor, I needed to understand the science. So, I read the data and discovered a mountain of rocksolid scientific evidence showing that intermittent fasting, when combined with a healthy diet and lifestyle, is a remarkably effective approach for losing body fat, especially stubborn belly fat; maintaining or even gaining muscle; and treating or preventing many diseases and conditions that plague Americans.

What makes this health trend so popular? It's not really a diet, per se, but a new style of eating and living that after you get the hang of, it can allow you to attain your health and wellness goals and still embrace life and eat the delicious, healthy foods you love. You'll find out that it's not so much about what foods you should eat but more so, when you eat. As they say, "timing is everything."

## About This Book

Intermittent Fasting For Dummies gives you all the tools you need to follow an intermittent fasting plan. Discover why simply changing the timing of your meals to allow for periodic breaks in eating can make such a positive difference in your body. With all the conflicting information about intermittent fasting out there, you may be wondering what's real and what's fake advice.

This handy guide puts all the important information together in plain English, laying out easy-to-follow guidelines for the different methods as well as describing what intermittent fasting can do for you — help you lose the fat for good, get healthier, fight disease, and hopefully increase your longevity. Remember, *you* are in charge, and you decide what will work for you.

By helping you eat fewer meals, intermittent fasting can lead to an automatic reduction in calorie intake. Additionally, it will positively change your hormone levels and flip the switch on your metabolism to facilitate all kinds of healthy bodily processes.

Specifically this book discusses the five most popular methods of intermittent fasting. Each type is effective, but may not be the right fit for everyone. You'll find out how to practice the different varieties of intermittent fasting as well as determine which method works best for your specific lifestyle.

This book is different from other books available about intermittent fasting because it's researched and written by a trusted expert in nutrition, health, and fitness — a registered dietitian and nutritionist — me! You can have confidence that the plans in this book are safe and based on sound science.

# **Foolish Assumptions**

When writing this book, I made the following assumptions about you:

- >> You may want to lose weight and keep it off.
- >> You may want to get rid of excess body fat (especially stubborn belly fat).
- >> You may already be lean and fit but want to tap into the myriad health benefits associated with intermittent fasting.
- >> You want to increase your energy level and boost your metabolism.
- >> You may have tried multiple diets in the past and been frustrated with the process and possibly gained back the weight.
- >> You want to reduce the risk of diabetes, cancer, and heart disease.
- >> You may want to simplify your life by freeing up time previously used to plan, cook, and clean up after all those meals.
- >> You may have sensed all the excitement about intermittent fasting and want to give it a whirl.
- >> You want to live a long, happy and healthy life.

## Icons Used in This Book

Throughout this book, and in true *For Dummies* fashion, you'll notice several icons — all of them are designed to help you better understand and get the most out of your intermittent fasting plan. The following is a list of the icons you can expect to see throughout this book and what they mean:



This icon points to a tip that you can help your intermittent fasting process easier to follow.

TIP



This piece of information is especially noteworthy and important.



Warnings, if posted, are enormously significant. Be wary!





This book is based on scientific data and hypotheses, which may get a bit technical in the explanation. I hope to explain the scientific jargon in easy-to-grasp concepts, but if it's too confusing, skip it.



I'll occasionally direct you to a helpful website with this icon.

# **Beyond the Book**

In addition to all the information in this book, you can find additional information online to help you with your intermittent fast. If you want to discover more about nutrition, healthy eating, and the Mediterranean Diet, you can visit my websites:

- >> www.DrJanet.com: For nutrition tips, recipes, blogs, book and app links, and all things nutritious and healthy, visit my website. You can also find out about my extensive credentials so you can have full confidence in my written nutrition advice.
- www.MediterraneanNutritionist.com: This website is your one-stop Mediterranean eating guide. *U.S. News & World Report* has consistently rated the Mediterranean Diet as No. 1 in numerous categories.

## Where to Go from Here

You can read the entire book from cover to cover or if that's not how you want to go about it, feel free to go to the Table of Contents and read the chapters that most interest you right now. You may want to start in the kitchen or supermarket, stocking up on delicious, nutritious foods for recipes in Chapters 21 and 22. Perhaps you may want to start with Chapter 1 to get an overview of intermittent fasting. Or you may decide to peruse the Parts of Tens first to get a quick overview of key recommendations in bite-sized bits of information. Regardless, this journey is all about putting you in charge. It's about *you* taking control of your life and changing *when* you eat while still enabling you to choose what you eat.

If you want additional information to reference whenever you want, refer to the Cheat Sheet at www.dummies.com. Just search for "Intermittent Fasting For Dummies Cheat Sheet."

# Getting Started with Intermittent Fasting

#### IN THIS PART . . .

Find out what intermittent fasting is and why this eating pattern is a complete game-changer.

Evaluate whether intermittent fasting is a lifestyle that's feasible for you and what you need to do if it is.

Assess where you're beginning so you can figure out where you want to go with your intermittent fasting plan.

Determine your ideal weight range for your personal health to get you a clearer picture of what is a safe and sustainable weight and percent body fat goal.

Get up to speed on this exciting method of losing body fat (especially the dangerous belly fat) and getting healthier.

- Entering the world of intermittent fasting
- » Visualizing what intermittent fasting can do for you
- » Answering your frequently asked questions
- Starting the walk toward the path of change

# Chapter **1**

# The Lowdown on Intermittent Fasting, Just the Basics

ou want to begin an intermittent fasting plan and embark on a leaner, healthier, and longer life. (You wouldn't be reading this book otherwise, right?) You may have heard that intermittent fasting is the key that unlocks everything from sustainable weight loss to increased mental clarity to a serious boost in energy. You may have asked your healthcare provider about how to follow this wildly popular diet but given her limited nutrition knowledge, you may not have received valid information.

So in vogue is this health and fitness trend, that it has moved into fad diet territory — meaning intensely popular for a short period of time — spawning massive amounts of misinformation at your fingertips. Because of its fad status, you may have fallen prey to illegitimate intermittent fasting claims and techniques proliferating on the Internet. This chapter serves as your jumping-off point to the world of intermittent fasting and explains in plain English what intermittent fasting is, based on sound science.

# Defining Exactly What Intermittent Fasting Is (and Isn't)

Before you can understand what intermittent fasting is, I first need to discuss fasting, which is different from intermittent fasting. *Fasting* is refraining from consuming food or drinks, except for water, for a set period. Traditional fasting, for lengthy periods of time, isn't a healthy means of weight loss and can be extremely dangerous. In fact, long-term fasting starves the body of essential nutrients, causes the body to shut down (metabolism slows dramatically), and can be life threatening.

# CLARIFYING STARVATION MODE: HINT, IT'S A MYTH

This nutrition myth pervades the dieting world, with confusion occurring because the term *starvation mode* means many different things to many different people. The often-repeated belief is that when trying to lose weight, you shouldn't drop your calories too low, because your body will go into starvation mode, and you'll hold onto fat and stop losing weight. This is 100 percent false. You don't gain weight or fat from eating too little. You won't go into a starvation mode during your intermittent fasting regimen.

#### Consider these facts:

- The starvation mode refers to the reduction in metabolic rate that occurs when the body is starved for long periods of time, such as observed in severely malnourished people with anorexia nervosa.
- During severe starvation, the body does in fact slow its metabolism down, dramatically; the body's natural physiological response to an extreme reduction in calorie intake, a technique the body uses as a survival mechanism. Without it, humans would have become extinct thousands of years ago.
- The starvation mode does *not* occur during most people's dieting experiences. Dieting, even low-calorie diets, don't catapult your body into starvation mode.
- When you lose weight, your body will require less calories to maintain your new body weight because there's less of you, so you require fewer calories, a concept referred to as metabolic adaptation.
- You can offset this metabolic adaptation and keep your metabolism as high as possible when losing weight by adding in strength-training exercise and making sure you eat enough protein.

However, *intermittent fasting* differs from traditional fasting. As the name suggests, intermittent fasting refers to alternating periods of fasting with periods of eating. It's a broad term, encompassing several specific types of short-term fasting protocols. The common theme among intermittent fasting regimens is that people periodically abstain from eating for periods longer than the typical overnight fast. Individuals either fast during a certain window every day or block out certain days of the week. These short eating rest periods allow the body's numerous systems to rest and reset without triggering the risk of malnutrition and metabolic slowdown that accompanies severely restrictive long-term fasting regimens.

Here I take a closer look at what intermittent fasting is and some of the dos and don'ts of getting started on your intermittent fasting journey.

# Recognizing the nuts and bolts of intermittent fasting

Here are the key principles of intermittent fasting lifestyle methods:

- >> All intermittent fasts restrict eating and drinking for set, short periods of time. Every method of intermittent fasting outlined in Part 3 has feasting and fasting periods that vary, depending on the regimen.
- >> The intermittent fasting approach involves alternating periods of eating and fasting. These time periods differ depending on the variation of intermittent fasting, so you choose the method that works best for your lifestyle.
- >> All intermittent fasting protocols are safe and effective for healthy individuals. Each of the methods in Part 3 are safe and have been shown to improve a person's health and well-being, if practiced correctly.
- >> All intermittent fasting protocols have certain rules you must follow during your fasting window. These steps include drinking plentiful amounts of water, black coffee, tea, and any other non-caloric beverage during your fasting window; just no solid foods allowed. Make sure to stay hydrated during your intermittent fasting periods.
- >> All intermittent fasting protocols prohibit you from eating excessive amounts of junk food during your eating windows. This habit will negate the many benefits of intermittent fasting. The biggest mistake people make is eating too much and eating unhealthy foods during their eating periods.

>> Intermittent fasting can be practiced for health and fitness and not necessarily for weight loss. Although weight loss is one of the most common reasons for trying intermittent fasting, many people choose to get leaner and fitter and tap into the numerous health benefits intermittent fasting provides without the goal of losing weight. In fact, some follow an intermittent fasting program with the primary goal of gaining muscle weight and losing body fat.



Although intermittent fasting is a healthy choice for some, for others, it can be dangerous. Several groups of people who absolutely *should not fast* include the following:

- >> Pregnant or lactating women
- >> Individuals who have eating disorders
- >> Individuals with type 1 or type 2 diabetes unless working with their healthcare professional (physicians *must* be consulted if you have any underlying chronic disease)
- >> Individuals using medications that they must take with food, unless working with their physician
- >> High-level endurance athletes
- >> Elderly individuals with balance issues
- >> Children

Chapter 7 discusses in greater detail who should and shouldn't follow an intermittent fasting plan.

# Delving deeper into how intermittent fasting works

Intermittent fasts cycle between periods of fasting with periods of eating. Whether or not you're fasting, the body still requires energy to run efficiently. The body's main source of energy is a sugar called *glucose*, which typically comes from carbohydrates such as grains, fruits, vegetables, and even sweets. Both your liver and muscles store the sugar and release it into the bloodstream whenever the body needs it.

#### Looking closer at the physiology

To understand how intermittent fasting works, you need a quick adaptive physiology refresher. Because food wasn't always abundant, and sometimes wasn't available at all, the human body was forced to adapt to fasting involuntarily — and

then, when Stone Age humans found food, they would feast. Because of those evolutionary conditions, human bodies evolved to permit their bodies to thrive by adapting to those cycles of feasting and fasting. In order to survive in such environments where food was scarce, humans had to possess the ability to quickly shift their metabolism from fat storage to fat breakdown for energy. This metabolic flexibility became built into human's genetic code, producing a system where energy was stored in the form of body fat when food was available and then easily accessed for energy to enable humans to perform at a high level, physically, during extended periods when food wasn't available. This pattern enabled human brains and bodies to function optimally in a food deprived/fasted state, giving the human race a survival advantage.

Scientists have hypothesized that the human body's adaptive benefits of intermittent fasting led to the superior cognitive capabilities (brain power) of humans compared to other mammals. These brain adaptations facilitated human's ability to invent tools, novel hunting methods, animal domestication, agriculture and food storage, and processing.

Because intermittent fasting patterns can replicate the feast-or-famine diet of human ancestors, many researchers have now recognized the advantages of periodically fasting (such as increased brain power, physical enhancements, and disease prevention) for the multitude of health benefits this lifestyle gives rise to.

#### **Examining the timeline of events**

What is the physiology of fasting? Although everybody responds to fasting a little differently (genetics, health, and age all play a role), there is a general timeline of events — a predictable set of metabolic responses as your fast stretches from hours into a day or longer. (For a much more detailed discussion of the different metabolic states your body goes through when practicing intermittent fasting, refer to Chapter 5.)



After fasting for a mere eight hours, here is the timeline of what happens in your body:

1. You have no food coming in, so you exhaust your supplies.

Your body has tapped into your liver reserves of blood sugar to continue to keep your blood sugar level in the normal range. You're now in what's termed a *catabolic* or breakdown state.

#### 2. You enter the fasted state; your liver has run out of its sugar reserves.

This triggers the liver to manufacture new sugar from noncarbohydrate sources (scientifically termed *gluconeogenesis*) to continue to supply energy to the cells. With no carbohydrates consumed, the body creates its own sugar by

using mainly fat. This marks the body's transition into the fasting mode. Studies have shown that gluconeogenesis increases the number of calories the body burns, meaning when your metabolism starts to increase.

#### 3. You flip your metabolic switch.

One key mechanism responsible for many of the beneficial health effects of short-term, intermittent fasting is flipping of the metabolic switch. The *metabolic switch* is the body's preferential shift from utilization of blood sugar to fat and fat-derived ketones for energy. In this step, your body breaks down fat, shuttling it to the liver, which creates ketones from fat to use for energy. The metabolic switch typically occurs between 12 to 36 hours after cessation of eating.

#### 4. Extended fasts (longer than 36 hours) begin to slow metabolism down.

That's why you shouldn't practice extended fasting with intermittent plans. After about 36 hours, the body stops using these energy sources (sugar and fat). The fasting mode then transitions to the more serious starvation mode.

#### 5. You enter starvation mode.

At this point, your metabolism has slowed dramatically, and your body begins to burn your own muscle protein for energy. The lack of essential nutrient intake plus using muscle for energy sets off an alarming cascade of dangerous complications.



During your recommended intermittent fasting periods, your fasting periods shouldn't extend beyond 36 hours. Although some people choose to fast for up to 48 hours, I recommend your intermittent fasting periods don't extend 36 hours because of the physiological reasons I mention here. Chapter 5 probes much deeper into the science of intermittent fasting.

# **Considering Your Intermittent Fasting Options**

The most effective dietary plan is the one you can adhere to for the long term while still living your best life. If you want to lose weight and are sick and tired of counting calories, then this eating pattern may be the right fit for you. The popularity of intermittent fasting lies in its simplicity and the fact that the fasting periods are time-limited, which people find easier to maintain than traditional diets.

Intermittent fasting is not only for people who want to lose weight, but it's also a phenomenal lifestyle plan for individuals who want to improve their health, fight

aging, and simplify their lifestyle. The scientific data shows intermittent fasting has powerful effects on your body and brain and may even extend your life. Chapter 6 discusses the miraculous health benefits linked to intermittent fasting.

Part 3 discusses the five most common ways of practicing intermittent fasting in detail. These different alternative protocols are as follows:

- >> Time-restricted intermittent fasting: The time-restricted intermittent fasting, also called the eating window plan, is by far the most popular plan, because many rave about it being the easiest to follow. This plan consists of fasting for a daily 16-, 18-, or 20-hour consecutive period and setting your daily eating window for the remaining 8, 6, or 4 hours (albeit, you can use other time windows). Check out Chapter 9 for more details.
- >> Warrior intermittent fasting plan: The warrior intermittent fasting plan is based on the eating patterns of ancient warriors who ate very little during the day and then feasted at night. Flip to Chapter 10 for the details on this method of intermittent fasting.
- >> Alternate day intermittent fasting: Alternate day fasting (ADF), another form of intermittent fasting, involves fasting one day, eating the next, and repeating. Chapter 11 gives you the lowdown on this method.
- >> 5:2 intermittent fasting plan: The 5:2 plan, also known as the fast diet, entails eating 500 to 600 calories on two nonconsecutive days of the week.

  Chapter 12 explains the ins and outs of this plan.
- >> Eat-stop-eat intermittent fasting: This plan requires fasting for a full 24 hours, once or twice a week. Head to Chapter 13 for how to incorporate eat-stop-eat intermittent fasting into your life.



TIP

Choosing the best intermittent fasting plan is simply a matter of preference. All the intermittent fasts in this book, if followed as directed, will result in weight loss (if desired), maintenance of muscle mass, and myriad additional health benefits. My goal is to explain all of them so that *you* can choose the one that fits you best. Remember, you are the one in control. The ideal intermittent fasting method for you is the one that is most sustainable and easiest to stick with. If you try one and it doesn't help you achieve your health and wellness goals in a reasonable time frame, switch to another. In fact, switching up your fasting plan can be beneficial as well, from a physiological standpoint. You may also consider assessing some of your barriers to change by doing some of the journaling exercises suggested in Chapters 2 and 23.

# MAKING THE EVOLUTION CONNECTION WITH TODAY'S INTERMITTENT FASTING

For more than a hundred thousand years, humans roamed the earth. They were foragers, so they'd fast until they found, caught, or killed their food. Like so many animals in the wild, human's paleolithic ancestors regularly experienced extended time periods with little or no food. The timing of eating depended on the availability of food; they ate opportunistically. Because humans evolved in environments where food was relatively scarce, they developed numerous adaptations that enabled them to function at a high level, both physically and cognitively, when in a food-deprived/fasted state. Importantly, metabolic, endocrine, and nervous systems evolved in ways that facilitated high levels of physical and mental performance when in the fasted state (from approximately 12 to 36 hours without food). Both the metabolic shift to ketone utilization (a chemical derivative of fat), and adaptive responses of the brain and nervous system to food deprivation play major roles in the fitness-promoting and disease-allaying effects of intermittent fasting.

Hunter-gatherers gathered berries off bushes; dug up tubers; hunted mammals; scavenged meat, fat, and organs from previously killed carcasses; and discovered how to fish and hunt with spears, nets, bows, and arrows. Furthermore, their activity level is a far cry from the sedentary lifestyle so many people today lead. By the 20th century, most hunter-gatherers had vanished from the face of the earth (currently only a few scattered tribes of hunter-gatherers remain on the planet).

#### Then came farming

Some 10,000 to 12,000 years ago, things began to change. Homo sapiens altered their lifestyle from hunting and gathering to a more sedentary routine of farming — what's termed the *agricultural revolution*. The human diet also took a major turn with the invention of agriculture. The domestication of grains created a plentiful and predictable food supply — *food security* — which allowed for storing surplus food. Provisions became readily available, hence people no longer had to eat opportunistically, and fasting was no longer necessary. The development of agriculture also brought a great societal transformation. People shifted from a nomadic existence to living in permanent communities, agrarian cultures.

#### The Industrial Revolution changed it all

Then the Industrial Revolution happened in the United States from the mid-19th century until the early 20th century. This shift in work routines permanently altered the way Americans eat. Refrigeration and transportation allowed for storing, packaging, and transporting of foods. Work shifted from farm to factory, and the human-eating schedule went to the three-meals-per-day routine that is the current eating pattern. Today, most Americans eat three meals and multiple snacks and rarely go more than four day-time hours without eating.