



DR. MASLEY'S  
**Solution to  
OutSmart  
Aging**

**Self-Quizzes  
& Workbook**

# Smart Fat Guidebook

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More than anything, I want you to know whether you are aging well, and if not, be able to do something about it. This guidebook provides quizzes in table format to help you assess how you are aging, giving you realistic goals you can achieve to reverse aging. It will help you determine whether you are meeting your nutrient and activity needs.

This program guidebook is designed to be shared with your doctor to measure your improvement over time. I suggest you use these materials to clarify your status before you start the program, after 30 days, and again after 3 and 12 months. Use this as a guide to help you track, and more importantly, optimize how you are aging.

## **The following Tables are included:**

- Smart Fat Food Score
- Signs of Metabolic Syndrome
- Personal Smart Fat Assessment
- Dr. Masley's Recommended Body Fat Percentage Range
- Signs of Early Cognitive Dysfunction

## **Ready to Get Started?**

Step 1: Watch the DVD, **7 Essential Measurements to OutSmart Aging**

Step 2: Listen to the Audio CD, **How to Talk to Your Doctor**, as you look over the tables in this guidebook.

Step 3: Call to schedule an appointment with your doctor as it may take 2-6 weeks to get an appointment. In the meantime, get started with the program. If you know your doctor's nurse, sometimes you can ask the nurse to order some blood work prior to seeing your doctor, such as the fasting blood sugar and hs-CRP levels.

Step 4: Answer as many questions as you can in the following tables. You may need your doctor to order some of the lab work if not previously ordered.

Step 5: Use the **Smart Fat** book, Chapter 8, pages 169-196 to clarify your nutrient intake.

Step 6. Make sure to complete the tables as well as you can before meeting with your doctor.

## What to Eat Every Day for the Rest of Your Life: The Magic of 5-5-10

What most people don't know about smart fats is that they are your *best friend* in the war against belly fat, inflammation, elevated blood sugar, arterial plaque growth, and decreased brain function. That's right, the very macronutrient you've been told to *avoid*—fat— actually *helps* you lose weight when you use it the right way! Fat also helps balance your hormones, *and* it provides the most efficient source of energy on the planet. The trick is to eat the right *kind* of fat—*smart* fat. I'm going to teach you how to do it.

Here is what I want to ensure you eat every day.

- Five (5) servings of smart fat
- Five (5) servings of clean protein
- Ten (10) servings of fiber

All you have to remember are three numbers: 5, 5, and 10.

You'll never need to remember how many calories are in a cup of berries or how many grams of sugar are in a teaspoon (four, if you're wondering). You won't have to create a "perfect plate" with precisely balanced amounts of fat, protein and fiber every time you have a meal or snack. All you need to do is use the framework I've just given you to guide your daily diet. It's that easy.

What you're aiming for is a daily intake that you can configure based on your needs and wants. The Thirty-Day Plan and recipes in our book will help you hit the mark every time, but as you prime yourself for the Smart Fat way of life, you'll want 5-5-10 to be second nature—and with a little practice, it will be.

In order to get the most out of the Smart Fat Program, particularly for weight loss, you should follow the Thirty-Day Plan precisely as outlined in the book. Use the tables that follow to track how you are doing.

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**Table 1: Smart Fat Food Score**

<b>Get Your Smart Fat Food Intake Score (1 typical day)</b>	<b>Initial</b>	<b>30 Days</b>	<b>90 Days</b>	<b>1 Year</b>	<b>Goal</b>
How many servings of Smart Fat do you eat?					≥5
How many servings of clean protein do you eat?					≥5
How many servings of fiber do you eat?					≥10
How many servings of alcohol do you drink?					0-2
How many servings of green tea do you drink? (decaf or regular)					2-4
How many servings of spices and herbs do you use?					≥5

**Table 2: Do You Have Signs of the Metabolic Syndrome?**

<b>Signs of the Metabolic Syndrome</b>		<b>Initial</b>	<b>30 Days</b>	<b>90 Days</b>	<b>1 Year</b>	<b>Goal</b>
Waistline: ≥40 inches for men, ≥35 inches for women	yes/no					No
Blood pressure: >135/85 mm Hg	yes/no					No
Triglycerides: ≥150 mg/dL	yes/no					No
HDL cholesterol <40 mg/dL for men and < 50 for women	yes/no					No
Fasting blood sugar levels (a fasting glucose ≥100 mg/dL)	yes/no					No
Hs-CRP > 1.0	yes/no					No

If you have several signs of metabolic syndrome that persist, then talk to your doctor about whether measuring your fasting insulin level would be helpful.

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**Table 3: Your Personal Smart Fat Assessment**

Type of Testing	Initial	30 Days	90 Days	1 Year	Goal
Hs-CRP (level)					<1.0
Fasting blood sugar (level)					<95
Blood pressure					<120/80
Body Fat %					See table
Waist Circumference					See DVD
Fitness (METS)					Listen CD
1-minute heart rate recovery					>25
Average exercise minutes / day					30-60
Fiber Intake (# servings/day)					>10
Multivitamin Intake (yes/no)					yes
Vitamin B12 (mcg/day)					50-1000
Mixed folates (mcg/day)					400-800
Fish oil Intake (EPA & DHA/day)					>1,000
Magnesium Intake (mg/day)					400-800
Vitamin D Intake (IU/day)					>2,000
Vitamin K Intake (mcg/day)					250-1000
Calcium (mg/day)					Read Smart Fat, pg 180
Probiotic Intake (billions bugs/day)					>5 billion/day
EGCG Intake (mg/day)					250-500
Or cups of green tea/day					2-4
Sleep hours / night					Read Smart Fat, pg 209

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**Table 4: Dr. Masley’s Recommended Body Fat Percent Ranges**

<b>ADULT MALE</b>	UNDER WEIGHT, MODEST HEALTH RISK	DESIRED BODY FAT	OVER WEIGHT, MILD TO MODEST HEALTH RISK	OVER WEIGHT, HIGH HEALTH RISK	OVER WEIGHT, VERY HIGH HEALTH RISK
Age 18-39	Less than 10%	10-20%	20-25%	25-30%	More than 30%
Age 40-60	Less than 12%	12-22%	22-27%	27-33%	More than 33%
Age over 60	Less than 13%	13-24%	24-29%	29-35%	More than 35%
<b>ADULT FEMALE</b>	UNDER WEIGHT, MODEST RISK	DESIRED BODY FAT	OVER WEIGHT, MILD TO MODEST HEALTH RISK	OVER WEIGHT, HIGH HEALTH RISK	OVER WEIGHT, VERY HIGH HEALTH RISK
Age 18-39	Less than 18%	18-24%	24-30%	30-37%	More than 37%
Age 40-60	Less than 19%	19-26%	26-33%	33-40%	More than 40%
Age over 60	Less than 20%	20-27%	27-35%	35-42%	More than 42%

If you are not able to calculate your body fat percentage, then have your doctor calculate your body mass index (BMI), to clarify whether you have a normal BMI. A normal BMI is less than 24, and a BMI more than 30 suggests obesity.

**Table 5: Do You Have Signs of Early Cognitive Dysfunction?**

Brain Performance Symptoms Score*		Initial	30 Days	90 Days	1 Year
Do I lose things often? (keys, pens, phones)	yes/no				
Is it harder to find my car in a big parking area?	yes/no				
Is it difficult to remember a 7 digit phone number to dial it?	yes/no				
Do I find myself writing lists to help my memory more than I used to?	yes/no				
Am I forgetting names of movie and sport stars I once knew well?	yes/no				
Is it easier to remember an event from 20 years ago than 2 days ago?	yes/no				
Do I have trouble dealing with math problems? (Balancing my check book, calculating percentages for tipping)	yes/no				
Am I challenged when I have to learn new things? (software programs, instructions to put together a new barbecue)	yes/no				
During a detailed lecture or meeting, does my mind start drifting sooner than it used to?	yes/no				
When working on a project, do I find it hard to get back into the groove after being interrupted by a phone call or office visitor?	yes/no				

\*The Brain Performance Symptoms Score is not a fully validated testing tool. The Mini-mental status questionnaire is a more validated instrument, yet it often does not identify memory loss until advanced stages. This Brain Performance tool is only intended as an aid to identify early cognitive loss. If concerns regarding memory loss are present, then I suggest further objective measures of cognition, such as the CNS Vital Signs computerized cognitive testing.

**Here’s how to evaluate your score. If you’ve answered yes to:**

- None of these questions: You’re doing great!
- 1-2 questions: You’re likely fine, but should watch for further cognitive loss.
- 3-4 questions: Some reason for concern. Check with your doctor.
- 5 or more questions: Check with your doctor sooner rather than later. Further mental function testing might be necessary.

## Audio CD #1

### Tips & Tools for Successful Weight Loss

Audio Outline Slides

#### PART 1: Background—

1. How BIG is the problem? It is HUGE!
2. How do you properly assess weight? A regular scale won't work!
3. Why calorie counting doesn't work
4. The impact of metabolism (calorie burn at rest)
5. Food is Addicting and it has hormonal influences

#### PART 2: How to succeed

1. Don't drink your calories
2. Eat foods that make you satisfied
3. Eat foods with a low calorie density
4. Understand macronutrient ratios (Fats, Carbs, Protein)
5. Consider following an Elimination Diet
6. Activity is essential to keep the weight off
7. Your microbiome impacts your weight

## ASSESSING WEIGHT and BODY COMPOSITION

- Weight
- BMI
- Waist circumference
- Body composition
  - Skin fold thickness
  - Density by dunking
  - Hologic DEXA Screening
  - Bioelectrical Impedance

### Body Fat % and Health Risk

Adapted with permission from Ten Years Younger, Masley, Random House 2006

ADULT MALE	UNDER WEIGHT, MODERATE RISK	DESIRED BODY FAT	OVER WEIGHT, MODERATE RISK	OVER WEIGHT, HIGH RISK	OVER WEIGHT VERY HIGH RISK
Age 18-39	Less than 10%	10-20%	20-25%	25-30%	More than 30%
Age 40-60	Less than 10%	10-22%	22-27%	27-34%	More than 33%
Age over 60	Less than 15%	13-24%	24-29%	29-35%	More than 35%
ADULT FEMALE	UNDER WEIGHT, MODERATE RISK	DESIRED BODY FAT	OVER WEIGHT, MILD TO MODERATE RISK	OVER WEIGHT, MODERATE TO HIGH RISK	OVER WEIGHT VERY HIGH RISK
Age 18-39	Less than 18%	18-25%	25-30%	30-39%	More than 39%
Age 40-60	Less than 20%	20-26%	26-33%	33-40%	More than 40%
Age over 60	Less than 22%	22-27%	27-35%	35-42%	More than 42%

### Calories In/Calories Out

This has been the American medical mantra for years,,,,,, Who believes it is that simple?

– The bottom line,,,,,,it isn't true!

- First, food is addicting. Getting control isn't easy.
  - You won't succeed using willpower alone
- Second, Are all calories created equally? **NO**
  - Some calories make you much **fuller** than others
  - Some calories have a toxic effect on metabolism (lowering your ability to burn calories)
- Third, Do we burn the same calories with activity & rest? **NO**
  - Some people have more muscle mass and therefore burn more calories at rest and with exercise
  - Some people have very low metabolic rates at rest

### Speed Up Your Metabolism for Long Term Weight Control

- Daily activity with an elevated heart rate
- Maintain a steady blood sugar level
- Choose a higher percentage of protein intake, especially in the am and late pm
- Caffeine and catechins have limited but real benefits
- Build muscle mass

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## FOOD IS ADDICTING

- Food manufacturers design food to make it addicting
- Sugar and refined carbs dominate taste buds and your brain lights up like a Christmas tree after consuming sugar. The more sugar you eat, the more everything else tastes bland and the more you want
- Studies have compared the addictive power of sugar and cocaine—sugar won.
- See the movie, “Fed Up”.
- Go sugar free for one week to break free!

## Food Has Hormonal Influences

- The foods you eat influence hormones that make you feel full or make you feel satisfied
- A rapid rise in blood sugar levels after eating stimulates insulin production and other hormones that help you store energy as fat and stimulate your appetite
- Avoid foods with a high glycemic load
- In particular, avoid beverages with a high glycemic load

## Part Two

### How to succeed

1. Don't drink your calories
2. Eat foods that make you satisfied
3. Eat foods with a low calorie density
4. Understand macronutrient ratios (Fats, Carbs, Protein)
5. Consider following an Elimination Diet
6. Activity is essential to keep the weight off
7. Your microbiome impacts your weight

## Thou Shalt Not Drink Thy Calories

*Liquid calories (lacking fiber & protein) provide no satiety!*

- How many calories are in:
  - 12-ounce can of cola
    - 35 grams of sugar x 4 calories/gram = 140 calories per day
    - 140 x 365 = 51,100 calories per year
    - 51,100 / 3555 (calories/lb) = 14 pounds gained
  - 4 ounce glass of wine
    - 82 calories / glass x 365 = 29,930 calories/year
    - 29,930 / 3555 = 8 1/2 pounds gained

## Satiety (fullness)

- Several factors increase satiety
  - Fiber (30-50 grams daily)
  - Fluid (6-8 glasses of non-caloric fluid daily)
  - Protein (1.2 grams/kg body weight)
  - Low glycemic load
- Sugar surges decrease satiety and make you hungry 90 minutes later
  - Your blood sugar level is likely lower 90 minutes after a high glycemic load than before you ate
- Fat provides great mouth feel (texture) is packed with calories, but doesn't provide much satiety
  - “Clean fat” doesn't mess with your blood sugar and insulin levels, so it is a better snack than refined carbs.

## Food Intolerances

- What if you have resistant weight loss?
  - You have followed a solid weight loss plan and it didn't work
- What if you have multiple unexplained medical symptoms?
  - Bloating and intestinal issues
  - Joint aches
  - Sinus congestion and problems
  - Brain fog
  - Hormonal issues

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## The Most Common Food Intolerances that May Cause You to Gain Weight

- Gluten
- Dairy
- Soy
- Peanuts
- Eggs
- Corn
- Sweeteners

For weight maintenance, aim to burn 2000 calories per week with aerobic activity weekly. For weight loss and long-term success, aim to burn 2500 calories for women, and 3000 calories for men weekly.

The weight maintenance goal is very compatible with the AIM 10,000 step per day program, but may not allow all to lose weight.

## Weight Loss Supplements: Several + RCTs, but small benefit

- Green tea (catechins), slows weight regain by 2-4 pounds (6-8 cups of tea, or EGCG 250 mg twice daily), RCT 2-4 pounds
- Chromium 400-800 mcg daily helps with insulin sensitivity, resulting in ~ 2-4 pounds of fat loss from RCT
- Carnitine 500 mg 2-3 x daily helps burn energy, especially with weight loss for those with high triglycerides, RCT 2-4 pounds

## What Hurts Your Microbiome?

- Antibiotics
  - Don't take them unless they are essential—like for pneumonia, not for a cold.
  - They can disrupt your gut flora for months.
  - Farmers feed cows, pigs, and chickens antibiotics so that they gain weight (like a weight gain pill)
- Gluten and other food intolerances that cause gut inflammation
- Artificial sweeteners
- Lack of dietary fiber

## Improve Your Microbiome

- Take probiotics
  - Eat fermented foods (yogurt, sauerkraut, kimchi)
  - Take a probiotic supplement with 10-60 billion bacteria daily (1 serving of yogurt has 5 billion live bacteria)
- Trial of an elimination diet (gluten free?)
- Eat at least 30-40 grams of fiber daily (from vegetables, fruits, beans, and nuts)
- Not currently available in the US for weight loss, but what is amazing is that in other countries, fecal transplants work for weight loss

## SUMMARY: Best Lifestyle Predictors of Long Term Weight Loss Success

1. Be sure to measure body composition, not total weight or BMI
2. Daily aerobic activity (30-60 minutes 5-6 days per week; likely 1-2 hours daily to reverse DM2)
3. Enjoy a high-fiber, high protein diets
4. Ensure high fruit and vegetable intake
5. Strength training, building muscle mass
6. Keep your microbiome healthy

### **Audio CD #2:**

#### **How to Talk with Your Doctor (audio outline)**

##### **Key questions for your doctor and tests you should ask for on your next visit**

This CD will help you speak the language necessary to get the information you need from your doctor. It will help you understand why the recommended tests are important for you, and give you the tools you need to assess (and communicate about) how you are aging, and monitor your improvement. This material also includes how to deal with issues related to insurance coverage for this type of special testing. Material in this CD will complement the workbook material and get you and your doctor working together towards a common goal –your health!

Keep in mind that the Smart Fat book and this package program contains advice and information related to health. It should only be used to complement your ongoing medical care, not replace it.

**Step 1:** I highly recommend that you include your own medical provider in any health care decisions you make, so ideally, call right now to schedule your appointment. When you telephone the office, ask for an appointment to focus on making lifestyle changes. Let them know you want to review food, activity, and supplement recommendations with your doctor. If you are past due for a physical, mammogram, or other testing, don't be surprised if they insist on this too. If you are past due for follow up regarding medical issues like blood pressure, blood sugar etc., you likely need to schedule a separate visit for those issues; please don't try to pack everything into one appointment or likely you'll never be able to address lifestyle issues.

If it takes weeks to get an appointment with a busy doctor (typical scheduling time can vary from 1-10 weeks), you can always ask to speak with the nurse to get some blood work ordered for you to get started. If you'd like to get a baseline before you start, the key is to measure your hs-CRP and fasting blood sugar levels if you haven't already done this. The nurse very often can get permission from the doctor to order these simple tests and you can see the doctor later. Keep in mind that every medical office has their own process for ordering laboratory studies. Some doctors feel they need to control everything ordered, and if so, they will want to see you before they order testing. You can offer to pay out of

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pocket to have hs-CRP and fasting glucose levels drawn (should be under \$50) then more likely, you can get this performed and see your doctor later).

**Step 2:** Listen to this audio CD and watch the DVD titled, 7 Essential Measurements to OutSmart Aging before you try taking the quizzes in the workbook. You'll need the background on the testing before you try to take these quizzes.

**Step 3:** Open the workbook and do your initial assessment before starting the program.

- Fill in any sections you can in advance before your doctor's visit

**Step 4:** On the day of your appointment, bring your doctor a gift—a copy of The book *Smart Fat*, sign it yourself for your doctor, and be sure to review the reference section on pages 285-300. I have to say, whenever my patients bring me a book, I always read through it, as I appreciate the effort they have expended. This book content will get you and your doctor working towards the same goals and speaking in the same terms (a huge benefit to your relationship), and the reference section will satisfy your doctor that this program is based on solid, scientific principles.

**Step 5:** Getting your testing ordered

- Hs-CRP (doesn't need to be fasting, but should not be within 30 days of surgery, an injury, or an acute illness)
- Fasting blood sugar (included in a Complete Metabolic Profile)
- Body composition (bioelectrical impedance scale—hydration, measure same time of day, similar alcohol, caffeine, workout routine. Or waist circumference. Guys, this isn't your pants size)
- Factors that predict arterial plaque growth
  1. Fitness Level (not minutes per week, but actual fitness. Refer to *The 30-Day Heart Tune-up* by S Masley, MD)
  2. Fiber (Use the fiber sources in Smart Fat, or see the fiber table in *The 30-Day Heart Tune-up*)
  3. Body fat % (body composition, I highly encourage you to buy a BEI scale)
  4. Fish oil intake (food, supplement, DHA for vegetarians)
  5. Food nutrients (magnesium, vitamin D, vitamin K, calcium)

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6. If you have heart disease, or are at high risk for heart disease, then ask your doctor to refer you to someone who can measure your carotid IMT score. Consider Vasolabs.
- Factors that predict cognitive function (If you are concerned about memory loss, then I recommend CNS Vital Signs testing annually)
    1. Fitness (MET level, 30-Day Heart Tune-Up book, trainer measurements)
    2. Fiber intake
    3. Fish oil intake (food, supplement, DHA for vegetarians as noted above)
    4. B vitamins intake (mixed folates and vitamin B12)

**Step 6:** Plan follow up visits with your doctor. Typically I suggest 30 and 90 days, but every person is different, so if your doctor wants to monitor your blood pressure or blood sugar sooner, then please follow your doctor's advice.

**Step 7:** What if you are taking medications that you hope to reduce over time (medications for blood pressure, cholesterol, blood sugar, romantic function)?

**Step 8:** What if your medical insurance doesn't cover this?

**Step 9:** What if your doctor doesn't want to participate?

**Step 10:** Finding a trainer for fitness testing (ACSM certified, they should push you, but not injure you)

Thank You for participating. I wish you the best of health!

Steven Masley, MD, FAHA, FACN, FAAF

DR. MASLEY'S  
**Solution to  
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For more information, please visit:  
**[www.DrMasley.com](http://www.DrMasley.com)**