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GLOW

THE DERMATOLOGIST'S GUIDE
TO A
WHOLE FOODS YOUNGER SKIN
DIET

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Section 1

YOUTHFUL SKIN

CHAPTER 1

INTRODUCTION

Over the 20 years that I've been caring for patients as a dermatologist, I've been asked a lot of questions about how to prevent aging skin. Here are a few that I've been asked by patients and friends (*names changed):

- Mrs. Riley is in her early 50s, and she's started to notice a softening of her jawline. She hasn't developed jowls yet (those loose folds of skin hanging off the jawline), but she's worried she's heading that way.
- Celeste is in her 20s, and her friends have all started getting serious about sunblock and anti-aging skin care regimens. One of her friends keeps telling her that she needs to start getting regular injections of Botox as part of an anti-aging skin regimen. She has her doubts about that, but she's wondering if there's anything else she should be doing to take care of her skin.
- Mr. Henderson is in his 70s, and he's here because of his grandchildren. His young grandson keeps asking about the dark purple spots on his forearms. He knows these are due to fragile skin which leads him to bruise easily, but he's worried this will get worse.
- Mrs. Boyd has always had a very smooth, youthful complexion, but now that she's in her late 30s she's noticing crow's feet: fine lines at the corners of her eyes. She's using a good anti-aging skin care regimen,

and she's very careful to use sunscreen and large sunglasses when outdoors. She's wondering what else she can do to slow down the formation of new wrinkles.

- Laura is in her mid-40s, and she's noticed many more dark spots and freckles on her face in the last 5 years. They're much more prominent now than ever before, and she's having a hard time covering them with concealer. She knows that a lot of this is her beach exposure catching up to her years later, and she's planning to have laser treatment to lighten the dark spots. She wants to know what else she can do to prevent more dark spots.

The skin concerns that Mr. Henderson, Mrs. Boyd, and Laura describe may all sound different, but they all share one important point.

They're all common signs of aging skin.

In medical circles we use certain terms to describe these concerns. Loss of elasticity. Fine lines and wrinkles. Solar lentigos (dark spots).

These are all skin changes that become increasingly common with age, and it might seem as though you're powerless to combat them. But the reality is that you can do much more than you realize.

What Would I Tell Each And Every One Of These Patients?

- I would tell them that you have the power to prevent further damage.
- I would tell them that you have the power to promote the skin's ability to regenerate.
- And I would tell them that this power, exercised in small ways every single day, can add up to big benefits.

Where does this power come from?

It comes from the choices that we make every day – including the foods that we eat.

The right foods play an important role in this process. Along with consistent sun protection and the right products or procedures, the promise of more youthful skin is more attainable than ever.

The Right Foods Provide Power: The Power to Prevent Skin Damage and The Power to Promote Skin Regeneration

Your skin is the largest organ of your body, and it is amazing. It protects you from extremes of temperature, from UV radiation, from infection, and more.

And it has a remarkable ability to regenerate. Think about the last time you had a paper cut. (That painful one. On the tip of your thumb. The one that made you wince every time you turned the page.)

Just two days later, and it was gone. Completely healed. On its own.

Healed so completely, in fact, that it was as though it had never been there at all.

That's what your skin can do: it has amazing abilities to repair and regenerate.

The right foods can support and supercharge those systems.

What Can The Right Foods Do For Your Skin? They Can:

QUENCH FREE RADICALS Your skin is under siege. Every minute of every day. Which is why your skin has so many built-in defense and repair mechanisms.

We know that ultraviolet (UV) radiation ages the skin. And the more that hits the skin, the more damage that results. You might see this as a sunburn. But even without a visible burn, that radiation produces free radicals and "burns" your skin on a cellular level, with damage to DNA, collagen fibers, elastic fibers, and more.

Antioxidants act to quench that damage. Some are naturally found in your skin, but they're constantly being used up. That's why the antioxidants in your food are so important: they provide a constant, renewable source of quenching antioxidants.

BLOCK SCISSOR ENZYMES UV radiation also damages the skin by increasing levels of "scissor" enzymes. These enzymes, including collagenase and elastase, start snapping away at the collagen fibers and elastic fibers that maintain youthful, resilient skin. The right foods prevent the activation of scissor enzymes.

ACTIVATE DNA REPAIR SYSTEMS When DNA damage does occur, your body springs into action to repair that damage. The right foods work to activate this system.

STRENGTHEN THE SKIN BARRIER The right foods can also help regenerate the skin barrier. Your skin barrier has two main functions: keep moisture in and keep irritants out (along with microbes, allergens, and toxins). As you age, that barrier doesn't work as well. The right foods, including the right fats, can help strengthen that skin barrier.

PROMOTE THE GROWTH OF GOOD MICROBES THAT STRENGTHEN THE SKIN BARRIER A healthy gut can also strengthen the skin barrier. Certain "good" microbes that live in your gastrointestinal tract can produce substances that actually strengthen the skin barrier. The right foods can promote the growth of these good microbes.

The Research That Can Help You Take Action

Over the next 200+ pages, you'll learn more. More about the forces that threaten your skin, and more about the research on how to combat those forces. You'll especially learn more about the foods that play such an important role in maintaining youthful skin.

While you'll learn about the research, this book is focused on action. You'll learn about the forces that work to damage your skin, and you'll learn about the foods that work to combat those forces. I call these skin saving foods, and in Section 4 you'll find recipes that make use of these powerful foods.

If you'd like to read more about the research, my website SkinAndDiet.com contains more information. You'll find links to the articles that I've written for a medical audience, published in peer reviewed medical journals. These articles cite the work of many amazing researchers in the field.

In the chapters to come, you'll learn how to translate this research into action to achieve youthful, glowing skin.

CHAPTER 2

A HOLISTIC APPROACH

I was on a hillside trail in Arizona, just starting a hike, when I saw a very striking woman coming down the path towards me. She was laughing and flushed and she looked exhilarated. She was absolutely luminous.

My guess was that she was in her 70s, and her face did have wrinkles. The thing is, she was just so full of life that the wrinkles barely registered; what really struck me was how youthful and radiant she looked.

With modern technology and skin care advances, there's a lot that can be done to address skin care concerns. But that inner glow of health and vitality: to achieve that requires more than makeup and skin care. That's why I talk about a holistic approach to youthful, healthy skin.

If your diet were a pill, the ads would call it:

***The Safe, Inexpensive, and Natural
Antioxidant and Anti-Inflammatory
Approach to Glowing, Youthful
Skin!***

In the following pages, you'll learn a lot more about the research behind that statement supporting the role of diet in healthy skin. Notice that word "role". It's important to realize that diet has to be used along with other treatments and approaches for the best effects. As in so much of medicine, it's not about one single factor. You really have to think about health, and healthy skin, in a holistic way.

A Holistic Approach to Youthful, Healthy Skin

The recommended approach to youthful skin:
Prevent, Promote, and Polish.

- ◆ **PREVENT** skin damage by protecting against UV radiation, pollution, advanced glycation end products, and other threats.
- ◆ **PROMOTE** skin health and skin regeneration by promoting high antioxidant levels, high anti-inflammatory activity, and good gut microbes.
- ◆ **POLISH** your skin's appearance by using the right skin care products, along with the right, carefully selected procedures when needed.

For Youthful, Healthy Skin

You need a holistic approach. It's not just about the right cream or the right procedure, although that may be part of it. A holistic approach means that you're looking at the whole picture. There are a number of factors that impact the health of your skin, and they're interconnected. To start with, you need to protect your skin on the outside from UV radiation and other threats. You also need to promote healthy skin by providing high levels of nutrients and promoting skin repair.

When it comes to promoting youthful, healthy skin, there are no quick fixes. There ARE quick fixes when it comes to repairing skin damage (technology is amazing). But promoting healthy skin requires taking small, consistent actions. To prevent sun damage, you have to protect yourself from UV radiation every single day. To promote youthful skin, you need to replete the nutrients in your skin every day.

Eating for youthful, healthy skin means focusing on your overall eating pattern. No one supplement, and no one food, is ever going to be as powerful as the combination of nutrients in a balanced, varied, nutrient-rich diet. That means a focus on a powerful, nutrient-rich, whole foods diet.

Eating for healthy skin means eating for health. The recommendations in the following chapters are the same as those recommended for the prevention of heart disease, hypertension, and Alzheimer's. That makes sense, because the health of our skin is so closely intertwined with our overall health. This fact is one of the main reasons I wanted to write this book. Eating more vegetables is one of the keys to fighting off some of the biggest threats to our nation's health, including diabetes, hypertension, and heart disease. The fact that vegetables and a whole foods diet promote glowing, younger skin gives you one more reason to eat more.

CHAPTER 3

THE SIGNS OF SKIN AGING

The signs of skin aging: they've been recognized (and worried over) for centuries.

The ancient Egyptians placed a great emphasis on skin preservation, in this life as well as the afterlife. Egyptian women traveled with makeup boxes containing their cosmetics and beauty tools. This care and concern extended to the afterlife: archaeological evidence has found that skin care products and tools were commonly placed in the tombs of the dead.

Just as in modern times, the ancient Egyptians were fighting the signs of skin aging:

THE SIGNS OF SKIN AGING

- 1. Fine lines and wrinkles.** While some are due to aging itself, a major factor in the development of wrinkles is the amount of UV radiation that reaches your skin and damages the collagen and elastic fibers in the skin.
- 2. Sagging.** Think about an elderly person with jowls, and how that contrasts with the firm jawline of a 20-year-old. That's due to collagen damage: accumulated collagen damage over a number of years weakens the supportive framework of your skin.
- 3. Loss of elasticity.** Someone in their 20s has tight, taut skin

that bounces back when you pinch it. As you age, your skin loses that ability to bounce back.

4. Atrophy. Your skin can become more fragile as you age. Many of my elderly patients describe frequent bruising on their forearms. They'll tell me that all it takes is a bump against the wall. This is because our skin thins as we age, which is known as skin atrophy. Sun exposure speeds up this process by damaging collagen.

5. Pigment changes. As we age, we accumulate a lot more freckles and dark spots. The medical term for one type of dark spot is solar lentigos. I call these sun spots, because they're due to a lifetime of UV exposure finally catching up to us.

6. Changes in skin texture. As you age, your skin often becomes more rough and dry. That's because your skin just doesn't hold onto moisture as well. And it doesn't matter how many glasses of water you drink--the loss of natural oils in our skin predisposes us to dry, rough skin as we age.

7. Loss of radiance and changes in microvasculature. Microvasculature is the medical term for the small blood vessels in our skin. Some people report that their skin looks more "sallow" as they age, meaning that they no longer have that healthy glow or radiance of youthful skin. It's believed that some of that is due to less blood flow through the tiny blood vessels that supply your skin.

Just as in ancient Egypt, this emphasis on preserving youthful skin was present in many of the advanced ancient civilizations, from China to the Middle East to India. Ayurvedic medicine, one of the most ancient medical traditions, had extensive descriptions of skin care techniques.

Practiced in India and other South Asian countries, ancient Ayurvedic texts describe skin care products (oils, powders, herbal waters) as well as ingested treatments. It's been reported that the ancient texts described over 200 herbs, minerals, and fats to maintain the health and beauty of the skin.

Their rationale for use centered around principles of anti-aging activity that we recognize today. In fact, many of the skin saving foods we recommend today target the same exact areas: cell regeneration, radiance, anti-inflammatory properties, and others.

Modern scientific research techniques have uncovered properties which may explain why these foods and herbs were considered so helpful. In one study, for example, the fruit Indian gooseberry [*Phyllanthus emblica* or amla] increased the activity of telomerase in the body, an enzyme with potential anti-aging properties.

Research has now shown that many different foods and nutrients can successfully target different cellular pathways.

Which means that a number of different foods can help you maintain youthful, luminous skin. The following table contains just a few examples of these foods.

THE RIGHT FOODS CAN COMBAT THE VISIBLE SIGNS OF SKIN AGING

Fine Lines and Wrinkles Foods rich in antioxidants can limit the collagen damage caused by free radicals: tomatoes (lycopene), berries (polyphenols), turmeric (curcumin), green tea (catechins)

Sagging Advanced glycation end products (known as AGEs) can cause serious damage to collagen. These compounds are formed when sugar in your system bonds with proteins in your body, and they're a major cause of wrinkling and sagging. Foods that limit rapid, sharp spikes in blood sugar levels may help limit sugar sag.

- High fiber foods ensure steady blood sugar levels: vegetables
- Power carbs, naturally rich in fiber and protein, limit rapid rises in blood sugar levels: lentils, beans, whole grains
- Some herbs and spices may help stabilize blood sugar levels: cinnamon, fenugreek, garlic, ginger, onions, turmeric
- Healthy proteins can balance out carbs to limit sugar spikes: beans, lentils, tofu, eggs, salmon, shrimp
- Certain phytonutrients (which are beneficial compounds in plant foods), including luteolin, quercetin, and rutin, have been shown to fight the process of glycation: apples, asparagus, cauliflower, figs, onions

Loss of Elasticity	<ul style="list-style-type: none"> • Research indicates that some foods are able to block the activity of the scissor enzyme elastase. Elastase is triggered by UV radiation and acts to degrade the elastic fibers in the skin: ginger, white tea, pomegranate • Higher intake of MUFAs (monounsaturated fatty acids) has been linked to more skin elasticity: olive oil
Atrophy and Skin Fragility	<p>Thinning of the skin occurs naturally with age, but is accelerated by UV radiation and other factors that cause collagen damage.</p> <ul style="list-style-type: none"> • Vitamin C is an essential cofactor in collagen synthesis: broccoli, cauliflower, red peppers, citrus • Certain polyphenol phytonutrients, including apigenin and luteolin, inhibit the activity of collagenase, an enzyme that degrades collagen: artichokes, celery, basil, cilantro, parsley, thyme • Certain spices and herbs act to inhibit the production of collagen-damaging AGEs: cinnamon, cloves, oregano, allspice
Pigment Changes	<p>Foods that limit the damage caused by UV exposure can limit the signs of photoaging, which includes freckling and solar lentigos.</p> <ul style="list-style-type: none"> • Foods demonstrated in human research studies to limit the skin damage caused by UV radiation: tomatoes, green tea, cocoa flavanols, pomegranate • Foods rich in polyphenol phytonutrients: In one study, patients reporting higher intake had lower scores of UV-related pigmented spots

Texture
Changes

Aging skin naturally exhibits a loss of natural oils and an increase in moisture loss.

- Foods rich in omega-3 fatty acids have been shown to reduce skin roughness and improve skin hydration: ground flaxseeds, walnuts, fatty fish such as salmon and sardines
- Foods rich in prebiotic fiber promote the growth of good gut microbes, which aid the function of the skin barrier: legumes, onions, garlic, asparagus, artichokes, oats
- Foods rich in live, active cultures of good microbes (probiotics) may improve skin barrier recovery: yogurt, miso, sauerkraut, kimchi, kefir, some vinegars, some pickled vegetables

Radiance

- Foods rich in polyphenol phytonutrients may improve blood flow through the small blood vessels that supply the skin: grapes, berries, black beans
 - In studies of human volunteers, higher levels of carotenoids in the skin impart a healthy glow: carrots, sweet potatoes, apricots, butternut squash
-

CHAPTER 4

THE KEYS TO EATING FOR MORE YOUTHFUL, HEALTHY SKIN

The 3 keys to eating for youthful skin:

1. Eat Power: Eat foods that provide powerful nutrients.

2. Stop Sugar Spikes: Elevations in blood sugar levels (sugar spikes) lead your body to produce AGEs (advanced glycation end products). These “sticky” compounds cause collagen damage.

3. Stop Skin Sabotage. I call them skin saboteurs, and they’re all around us: foods that damage collagen. From refined carbs, to fried foods, to browned meats, a number of foods have been shown to accelerate the skin aging process.

EAT POWER

Eat power means eat foods that provide powerful nutrients. Certain foods contain the powerful nutrients that promote youthful skin. If you're looking at your dinner plate, you want to make sure you've got these covered.

- **Foods and beverages that are naturally rich in antioxidants**, including fruits, vegetables, green tea, herbs and spices, and more. These foods are also rich sources of anti-inflammatory compounds and other powerful nutrients, which means they pack a double punch.
- **Power carbs**, such as whole grains, beans, and lentils. These foods provide carbohydrates along with a host of powerful nutrients, including fiber, vitamins, minerals, phytonutrients, and protein.
- **Power fats**, including mono-unsaturated fatty acids (MUFAs) and omega-3 polyunsaturated fatty acids. These have been shown to help strengthen the skin barrier, maintain skin elasticity, and provide anti-inflammatory benefits.
- **Herbs and spices** are considered a triple threat: they're a concentrated, powerful source of antioxidants, they're a powerful source of anti-inflammatory compounds, and they have anti-glycation properties.
- **Prebiotics and probiotics** promote the growth of "good" microbes in the gastrointestinal (GI) tract. This ensures good gut health, and it impacts skin health. That's because these good gut microbes secrete substances that help strengthen the skin barrier and make it more resistant to irritation.

STOP SUGAR SPIKES

We all love cupcakes. But if you're enjoying them a little too frequently you're risking long-term collagen damage.

That's because eating foods heavy in refined carbohydrates or added sugars can cause elevated levels of blood sugar. That excess sugar can combine with proteins in the body to create advanced glycation end products (known as AGEs). These "sticky" compounds wreak havoc on your skin and on your health.

AGEs cause damage to collagen, blood vessels, and other organs. In the skin, that collagen damage results in sugar sag: premature wrinkling and sagging of the skin.

To prevent the formation of collagen-damaging AGEs, you need the right strategies. It starts by avoiding foods heavy in added sugars and refined carbs. It also means focusing on 3 main strategies:

- **Eat power carbs:** Carb sources such as whole grains, beans, and lentils naturally contain fiber. They also provide vitamins, minerals, phytonutrients, and sometimes protein.
- **The Half-Produce Plate:** With half your plate covered in fruits and vegetables, you're ensuring hefty doses of fiber and micronutrients.
- **Balanced Meals:** Eating meals that contain healthy protein to balance out carbs helps keep blood sugar levels stable.

STOP SKIN SABOTAGE

You may love doughnuts, but those deep-fried, sugary, carb-loaded treats are doing your skin no favors. They don't just cause your body to produce collagen-damaging AGEs. They actually contain their own pre-formed AGEs.

Your body produces AGEs when your blood sugar levels start to spike. But that's not the only way AGEs find their way into your collagen. You can also eat them. Pre-formed AGEs are found in browned meats, fried foods, some grilled foods, and others. Processed foods that contain trans fats are also skin saboteurs.

PUTTING IT ALL TOGETHER

Eat power. Stop sugar spikes. Stop skin sabotage.

When it comes to eating for youthful skin, these are the three major goals. And the right foods and recipes can help you reach them.

In the next chapter, you'll be introduced to some of the common (and less common) foods that promote youthful, luminous skin: skin saving foods.

CHAPTER 6

THE SCIENCE OF AGING SKIN

While dermatologists have long known about the link between our diet and our skin, we now recognize that these are connected on a cellular level, in many different ways.

Is this new information?

No. We've actually known for centuries that our internal health and our skin health are closely related.

Take the skin changes seen in diabetes. One of the warning signs of diabetes is a darkening of the skin of the neck. This is known as acanthosis nigricans, and it indicates that the body isn't responding to insulin as well as it should (known as insulin resistance). When dermatologists diagnose acanthosis nigricans, we inform our patients that creams or even lasers are not the answer. This noticeable skin darkening is due to internal causes, and dietary changes are the key treatment.

It's also well-known that persons with diabetes have impaired wound healing. Their skin doesn't heal as well, due to changes in blood vessels and collagen. Those same changes can accelerate the skin aging process.

So, while the information isn't new, it's being studied much more intensively than ever before. Researchers have made great strides in uncovering the cellular mechanisms that link diet and the skin.

Why Does Our Skin Age?

When you're thinking about the link between your diet and your skin, it's helpful to start by thinking about the process of skin aging.

INTRINSIC AND EXTRINSIC FACTORS Some of the skin aging process has to do with what are known as intrinsic factors, such as the passage of time and our genetic makeup. Much of skin aging, though, is due to external factors. The one that most of us are familiar with is ultraviolet (UV) radiation from sun exposure. We've all seen actors on the big screen with this kind of skin aging – leathery, rough, deeply creased skin. Other external factors include pollution and (the very damaging) smoking.

PHYSICAL FORCES Physical forces can also impact our skin, and are a major force in aging skin: just think of smile lines and frown lines. Another major factor is gravity. Your skin eventually starts to sag and jowl in part because the collagen framework of your skin can no longer fight gravity as well.

When I started thinking about these factors, it made me wonder if there was any way to protect against these effects. Were there any foods that could protect against the damaging effects of UV radiation? Was there any way to strengthen the collagen so that it could better withstand the forces of gravity?

It turns out that yes, dietary changes can actually protect you from some of the forces that accelerate aging of the skin.

Your Skin Is Under Siege

You don't necessarily think about it every day, but your skin stands guard to protect you from multiple threats. From the elements, to extremes of temperature, to staph bacteria, your skin stands guard every day.

You can think of your skin as a house. Just like a house, your skin provides shelter and protection.

And you need that protection, because the threats to your skin come at you from all sides. Here are the big three, which I think of as **OMG**:

- ◆ **OXIDATIVE STRESS** due to UV radiation and pollution causing free radicals
- ◆ **MAJOR AND MINOR INFLAMMATION** due to your body's defense and repair processes going haywire in response to signals
- ◆ **GLYCATION** due to excess blood sugar

The right foods can combat each of these forces.

Oxidative Stress: Free Radicals Pounding The Skin

You need to make sure that your skin stands guard against UV radiation. Just like rain and hail can pound the roof of your home, the free radicals that are formed from UV radiation and pollution can pummel your skin and damage DNA, skin proteins (such as collagen and elastic fibers), and lipids (such as cell membranes). To quench those free radicals, you need antioxidants, especially the kind found in certain foods.

Inflammation: Defense And Repair Processes Out Of Control

You also need to make sure that your body's repair processes work exactly as designed. Just like an overzealous repairman who starts by fixing one small leak but ends by creating a large hole in your roof, your repair processes can sometimes result in more damage than repair. That's chronic inflammation: when the body's repair processes start to go haywire. An anti-inflammatory diet can act to calm down the process of inflammation.

Glycation: The Creation Of "Sticky", Damaging Compounds That Weaken The Skin's Structure

You also need to worry about the collagen fibers that form the structural basis of your skin. Just like termites can eat away at the walls of your home, advanced glycation end products, which are formed from excess sugar in your system, can weaken the collagen framework that supports your skin. To combat glycation, you need to focus on the right foods to keep blood sugar levels stable.

Other Threats

I think of these as the three major threats to your skin health, but they're certainly not the only ones.

Hormones have many potential effects on your skin, and some changes in hormone levels can stress and damage your skin. Just like extremes of temperature can warp the walls of your home, changes in hormone levels can change the functioning of the skin barrier, the strength of the collagen framework, and other skin properties. These include hormones such as thyroid hormone, estrogen, and the stress hormone cortisol.

It's All Connected

As in so much of medicine, skin aging is due to a combination of these factors and others, and they're all interrelated. Exposure to UV exposure can cause free radical production. Those free radicals can cause direct damage to collagen and DNA. They can also activate the body's defense and repair systems, leading to more damage from inflammation. The process of glycation weakens the collagen framework, and that weakening is accelerated in areas already stressed by oxidation.

How Exactly Do Foods Combat Skin Aging?

The right foods can combat each of these processes, whether that's via antioxidants, anti-inflammatory nutrients, anti-glycation properties, or other effects. The next section describes these foods and the research behind them.

Section 4

RECIPES

Tying It All Together: Skin Saving Foods + Recipes

You have the potential to power up just about every meal of your day. From breakfast to soups to snacks, there are ways to add powerful skin saving ingredients to just about every meal.

The recipes in this section are meant to help you do just that. They meet the 3 major goals of eating for younger skin: They add in many powerful nutrients. They're designed to limit sugar spikes. And they avoid deep-fried and heavily processed foods.

Healthy Cooking: Ideas and Suggestions

Under skin saving sides, you'll find a recipe for roasted Brussels sprouts. I love all the crispy Brussels sprouts I'm seeing on appetizer menus. These are simple to re-create at home. You can chop the sprouts in under 5 minutes (just chop in half), and the rest of the recipe is just a shake and bake: shake on the flavors, gently combine, and bake in the oven.

This recipe really highlights one important point: the hardest part of cooking vegetables isn't the difficulty factor. It's the learning how and the planning how.

- You have to learn how to best maximize taste and looks and nutrition.
- And you have to learn how to plan a weekly menu, because only the super-experienced can come home, look in the fridge, and on-the-spot cook up a tasty, nutritious dinner.

In the sections that follow, you'll find mostly straightforward recipes, with a few more complex recipes sprinkled in.

Personally, I used to be intimidated by certain recipes with their long lists of ingredients. Once I started to deconstruct recipes (break down them into their basic techniques), many of them seemed much more doable. For the recipes that

follow, even if you have minimal cooking experience, you'll still be able to handle most of the techniques involved.

- **Power blends.** Just blend the ingredients
- **Shake and bake.** Shake on some flavorings and bake
- **Toss it and top it.** Just like a salad: toss your ingredients together and then add a topping
- **Boil.** Several recipes involve boiling, but if you can boil pasta, then you can cook lentils and quinoa.
- **Sauté and simmer.** If you can boil pasta, then you can sauté and simmer. To sauté, just heat some oil, add your ingredients, and cook for a few minutes by stirring. To simmer, boil gently.

Heritage Diets

A number of these recipes are derived from traditional heritage foods: tomato herb salad, gazpacho, Romesco sauce, turmeric yogurt with roasted Indian spices, and others. Heritage diets are a wonderful place to look for recipes for a whole foods diet. Many of the world's traditional cuisines were (by necessity) based on whole foods. And over many years, these chefs have learned how to maximize flavor, appearance, and often health benefits.

Whole Foods and Healthy Shortcuts

These recipes are centered around whole foods (ingredients that are close to their natural form) and lightly processed foods. That doesn't mean you'll be lunching on raw carrots; it just means a focus on foods that aren't heavily processed. This includes a range of foods, because certain processing techniques make foods safer to eat or increase shelf life without depleting nutrients. A whole foods diet can incorporate plenty of cooked, frozen, and canned foods.

When you're trying to decide if a particular product fits into a whole foods diet, you really have to rely on the ingredient list

(what have they added to those carrots?) as well as the nutrition facts label (how much added sugar is in that green tea?). Don't rely on the label found on the front of the package, because many of those focus on marketing claims.

As for healthy cooking, I'm always on the lookout for nutritious, time-saving shortcuts, whether that's the right gadgets or the right pre-prepped foods. I use certain foods all the time, because they make healthy cooking so much easier: frozen fruits and vegetables (without added sugar, salt, or fat), canned beans (rinsed before using), pouches of salmon and cans of tuna, and nut butters. Another time-saving tactic is cooking, then freezing, whole grains and dried beans.

As with everything else, getting better at cooking tasty + healthy food requires some know-how and a lot of practice. Some cooking schools, stores and restaurants offer classes focused on healthy cooking or healthy traditional cuisines. These classes may even be offered at your medical center.

The Tulane University Goldring Center for Culinary Medicine has been expanding their program to other centers under the direction of Dr. Timothy Harlan. In Houston, we now have the Nourish Program at the University of Texas School of Public Health. These programs offer classes to the public. They also train professionals in culinary medicine, which combines nutrition and culinary knowledge to achieve optimal health.

CHAPTER 27

SKIN SAVING STARTS

BREAKFAST TACOS

SPINACH FRITTATA

OVERNIGHT COCOA BANANA OATS

PALEO BREAKFAST TART

If you picture the standard American breakfast, you're not seeing much in the way of fruits and vegetables. (And if you're a child of the 80s, your breakfast was probably Froot Loops, not fruit.)

You can power up breakfast pretty easily, though. These recipes add hefty doses of protein, fiber, and produce.

High Protein, High Produce Breakfasts: Spinach Frittata and Breakfast Taco For those who are carb-sensitive, starting the day with a high protein breakfast may be helpful. Breakfast tacos are a high protein start, and they can be easily customized. You can scramble your eggs with just about any vegetable: in my family, we've done fresh spinach or butternut squash puree, although my favorite is sautéed onions, peppers, and cilantro. Frittatas are another great base for adding in vegetables. They're an easy way to add in spinach, but you can easily substitute any chopped vegetable.

A Touch of Sweet: Breakfast Tarts and Oatmeal For family members who prefer a touch of sweet, the bananas and blueberries in the breakfast tart add a little sweet, along with

fiber and antioxidant polyphenols. (Although it's a bit sweet, it's still a lower carb option for those who are sensitive). For a higher-carb breakfast, oatmeal adds in a nice dose of prebiotic fiber, while adding in almond butter (healthy fats) and chia seeds (fiber) helps to stabilize the blood sugar response. Adding in cocoa powder, nuts, and bananas means extra antioxidants and fiber.

Spinach Frittata

The Basics: Sauté then bake

Yield: 4 servings | Prep time: 5 min | Cooking time: 15 min

Ingredients

2 tbsp olive oil

1 onion, diced

2 cloves garlic, minced

10 oz frozen chopped spinach, thawed (or fresh)

6 eggs

Herbs/spices

1 tsp basil

1 tsp oregano

3/4 tsp salt

Topping

1/4 cup feta cheese

Directions

1. Preheat oven to 400°
2. Heat oil in oven-safe skillet
3. Sauté onion until softened, about 3 minutes
4. Add garlic cloves and spinach and sauté for another 3 minutes
5. In bowl, whisk together eggs and seasonings
6. Pour egg mixture over vegetables and cook until almost set, about 5 minutes
7. Top with feta cheese and transfer to oven
8. Cook for 5 to 8 minutes, until puffed

Breakfast Tacos

The Basics: Sauté then scramble

Yield: 4 servings | Prep time: 10 min | Cooking time: 10 min

Ingredients

Main Ingredients

2 tbsp olive oil
1 onion, diced
1 large tomato, diced
1/2 red bell pepper, diced
1 clove garlic, minced
1 tsp smoked paprika
1 tsp turmeric
1/2 tsp salt (or to taste)
1/4 tsp pepper (or to taste)
1/4 bunch cilantro (leaves and stems, tough ends discarded)
4 eggs, whisked

For serving

4 tortillas, corn or flour
Shredded cheese (optional)

Directions

1. Heat oil on medium heat in large skillet
2. Add onions, vegetables, garlic, and spices
3. Sauté until onions soften, about 3-5 minutes
4. Add cilantro
5. Add eggs and cook, stirring to scramble, until done, about 3 minutes
6. Add eggs to tortilla, top with cheese if desired, and fold over