

A person is sitting on the ground, wearing a grey knitted sweater and blue jeans. They are holding a large, light-colored bowl filled with a healthy salad. The salad includes green leafy vegetables, red tomatoes, yellow chickpeas, and a large slice of avocado topped with a red spice. The person is using a fork to eat from the bowl. The background is dark and out of focus, suggesting an outdoor setting.

THE EASY GUIDE

HEALTHY EATING AT ANY AGE

ANDREW NEVES

The Easy Guide: Healthy Eating At Any Age
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This science information book is intended as an educational work only.

It is not a medical manual.

The information here is designed to help you make informed decisions when planning your nutrition, meals, and exercise.

It is not intended as a substitute for any treatment that may be prescribed by your doctor.

If you suspect that you have a gastronomical problem or if you experience physical discomfort, we urge you to seek competent medical help from a skilled physician.

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Photos by Twenty20

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To Geb, Auset, and Het-Heru; to T and my sons; and to my dear friends G-Man and Jonesy.

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ENDORSEMENTS

“Andrew Neves is not only a phenomenal writer for his wealth of knowledge, but he also is for his exceptional literature that flows beautifully throughout.” – *Red Headed Book Lover*

“Very Informative. This will definitely open your eyes and get you eating much better for your health.” – *Jennifer Willison.*

“What we eat matters. This read opened my eyes. Enlightened me on the power of microgreens. Clearly well researched.” – *Liz*

“Useful and delicious. This book provides useful and delicious recipes for everyday green menus. Recommended.”

Jennifer Xue is an award-winning, multi-book author and syndicated columnist based in Northern California.



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Food is Our Best Medicine

I am delighted to be able to share this with you.

I am confident these following few chapters of information are going to be very helpful for you.

Have you ever wanted to keep your body physically fit and active, boost your immunity, and defy physical and mental illness as you age?

“Nutrition is the only remedy that can bring full recovery and can be used with any treatment. Remember, food is our best medicine!”



Figure 1 Food is Our Best Medicine

Yes? Then you are in the right place.

What if I told you that chronic diseases could be reversed?

That proper exercise, healthily eating, and essential nutrients from microgreens can fortify your health and bring happy aging.

You're going to learn how to ensure adequate nutrition.

That every bite you take is packed with as many nutrients as possible.

Healthy eating is vital at any age but becomes even more so as we reach midlife and beyond.

As you age, eating healthy and nutritious meals can improve mental acuteness, boost your energy levels, and increase your resistance to illness.

But healthy eating doesn't have to be about dieting and sacrifice.

Instead, it should be all about enjoying fresh, tasty food, wholesome ingredients, and eating in the company of friends and family.

No matter your age or your previous eating habits, it's never too late to change your nutrition and improve the way you think and feel.

Improving your nutrition can now help you.

Ready?

Let's get started.

The Aging Process

The Science

Whenever you consider how your body is aging, it is likely the most visible changes that spring to mind.

Maybe you've observed more grey hair, or perhaps your skin does not appear as smooth as it was once.

These are merely outward indications of a few processes happening in your cells and bodily systems that together constitute normal aging.

Although all humans share this, the US National Institutes of Health say aging is undoubtedly one of nature's least understood processes.

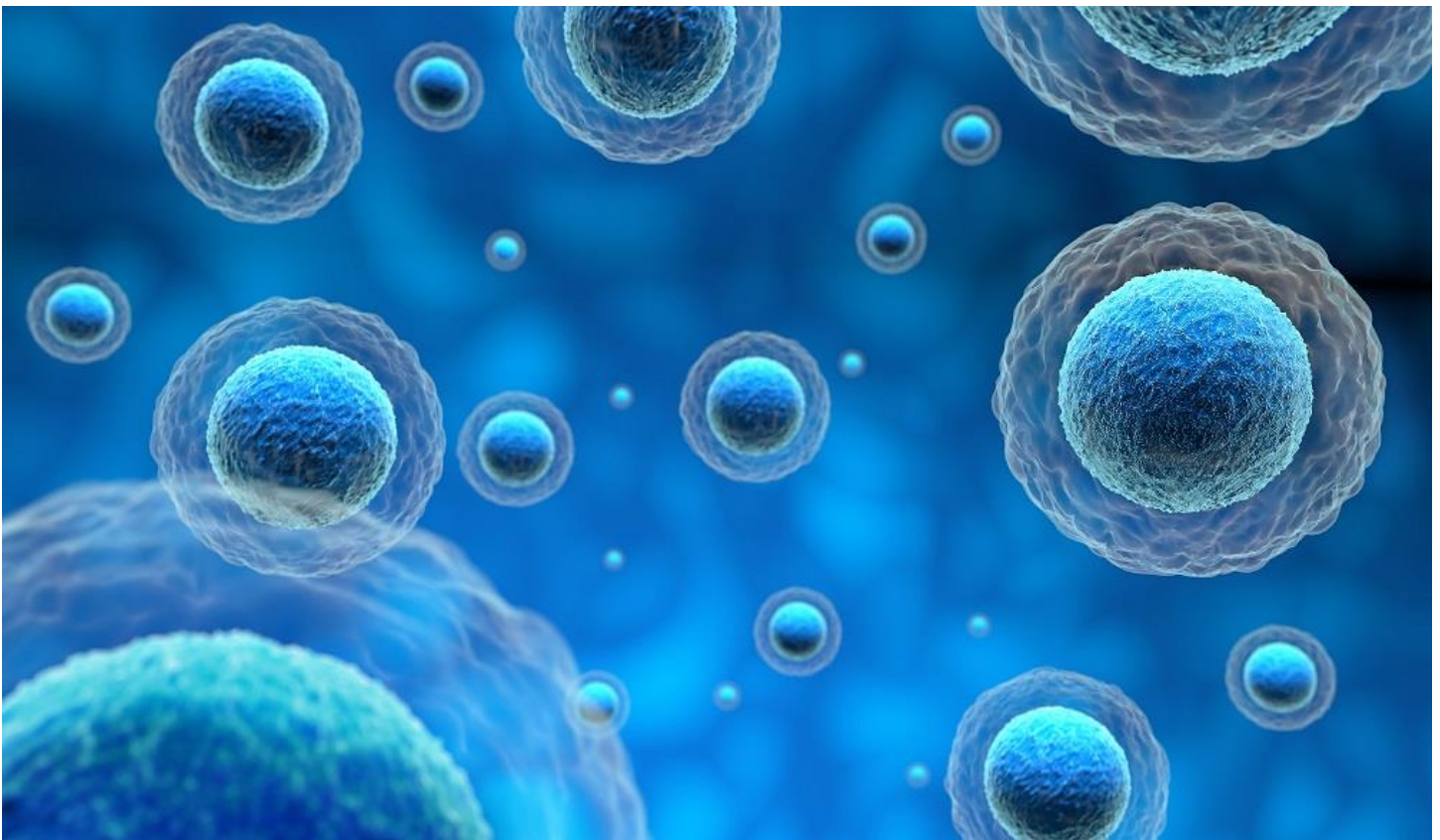


Figure 2 Cellular Aging

What is Aging?

Think of aging as “the changes which happen to our bodies over time.”

This definition encompasses all the aging the human body goes through, instead of the signs of aging that occur later in life, like gray hair and wrinkles.

The body causes some aging. Another aging accumulates over time, like skin damage caused by sun exposure.

As a result, aging is a combination of bodily changes and how we take care of ourselves.

In other words, aging is the impact of time on the human body, and it occurs on multiple levels:

Cellular Aging

Our cells age based on the number of times they have replicated.

A cell can replicate about 50 times before the genetic material can no longer be copied accurately due to shortened [telomeres](#).

The more damage done to cells by free radicals and other factors, the more cells need to replicate.

Hormonal Aging

Hormones are an enormous element in aging, especially during childhood growth and adolescent maturity.

Hormonal levels fluctuate through existence.

Adolescence brings acne and more prominent pores.

As we age, hormonal changes result in dried-out skin and menopause.

Accumulated Damage

Accrued damage is on the outside.

Contact with toxins, the sun's rays, dangerous foods, pollution, and smoke have a toll on our bodies.

With time, these external factors can result in injury.

The entire body falls behind in being able to maintain and repair cells, tissues, and organs.

Metabolic Aging

Every day our cells are continually turning food into energy, which produces byproducts that may be dangerous.

The entire process of metabolizing and creating energy leads to harm to your body with time.

Some [scientists](#) think that lowering your metabolic rate, for example, calorie restriction may slow aging in humans.

The Trends

[Research](#) is making significant progress in understanding the biology of aging, but today's knowledge only scratches the surface.

The time of your life when age-related changes appear depends on a variety of factors, including:

- Genetics
- Diet
- Culture
- Activity levels
- Environmental exposure



Figure 3 Healthy and Beautiful At Any Age

Take Doug Penick, owner of [Equilibrium Microgreens LLC](#) in Galesburg, IL, USA. In July 2017, doctors diagnosed Doug with Type II Diabetes with an [A1C](#) of 10.6.

Read my article, [Why Eat Microgreens?](#), at [Microgreens World](#) and learn how Doug reversed diabetes by combining microgreens and exercise.

Some things to keep in mind:

- For staying healthy, physical activity is essential, and any movement is good movement.
- Where you are born, where you live, and whether you live in wealth or poverty are critical factors in healthy aging.
- Cognitive well-being is a fundamental determinant of positive aging.
- The fundamental goal of biological science research into aging isn't so much to extend the lifespan.

The fundamental goal of the biological sciences is to maximize healthy longevity or healthspan by delaying the declines in physical function and the increased risks for diseases that go along with aging.

Understanding the Aging Process

Old age presents changes and challenges for everyone.

It will come to us all.

Generally, slight, gradual changes are common, and most of these are not problems to the person who experiences them.

You can't stop the aging process.

But you can make choices that improve your ability to maintain an active life, do the things you enjoy, and spend time with loved ones.



Figure 4 Cooking and Eating Healthily

Eating healthy becomes especially vital as you age.

That's because aging is linked to various changes, including nutrient deficiencies, decreased quality of life, and poor health outcomes.

There are things, however, that you can do to help prevent deficiencies and other age-related changes.

For example, [eating nutrient-rich foods like microgreens](#) can help keep you healthy as you age.

How Does Aging Affect Your Nutritional Needs?

Aging is linked to various body changes, including muscle loss, thinner skin, and less stomach acid.

Some of these changes can make you prone to nutrient deficiencies.

In contrast, others can affect your senses and quality of life.

Another challenge of aging is a reduced need for calories.

Unfortunately, this creates a nutritional dilemma.

Older adults need to get just as much, if not more, of some nutrients, all while eating fewer calories.

Another issue you may experience as you age is reducing your body's ability to recognize vital senses like hunger and thirst.

This could make you prone to dehydration and unintentional weight loss.

And the older you get, the harsher these consequences may be.

Needing Fewer Calories, But More Nutrients

Your daily calorie needs depend on your height, weight, muscle mass, activity level, and several other factors.

Older adults may need fewer calories to maintain their weight since they tend to move and exercise less and carry less muscle.

Suppose you continue to eat the same number of calories per day as you did when you were younger. In that case, you could quickly gain extra fat, especially around the belly area.

This is especially true if you are a post-menopausal woman, as the decline in estrogen levels seen during this time may promote belly fat storage.

However, even though older adults need fewer calories, they need just as high or even higher levels of some nutrients as younger adults.

This makes it very important for older adults to eat various foods, such as fruits, vegetables, fish, lean meats, **and yes, microgreens.**

These healthy staples can help you fight nutrient deficiencies without expanding your waistline.

Nutrients that become especially important as you age include protein, [vitamin D](#), calcium, and vitamin B12.

The Science

You have a lot of say-so in how you feel as you grow older -- from your eyes to your skin and bones.

You know that aging will likely cause wrinkles and gray hair.

But do you know how aging will affect your teeth, heart, and sexuality?

You can enjoy a better body by knowing what's natural as you age and what's not, and by learning these, you can try to delay or lessen the changes.

Wonder what's considered a normal part of the aging process?

Here's some of what to expect as you get older.

Your Heart

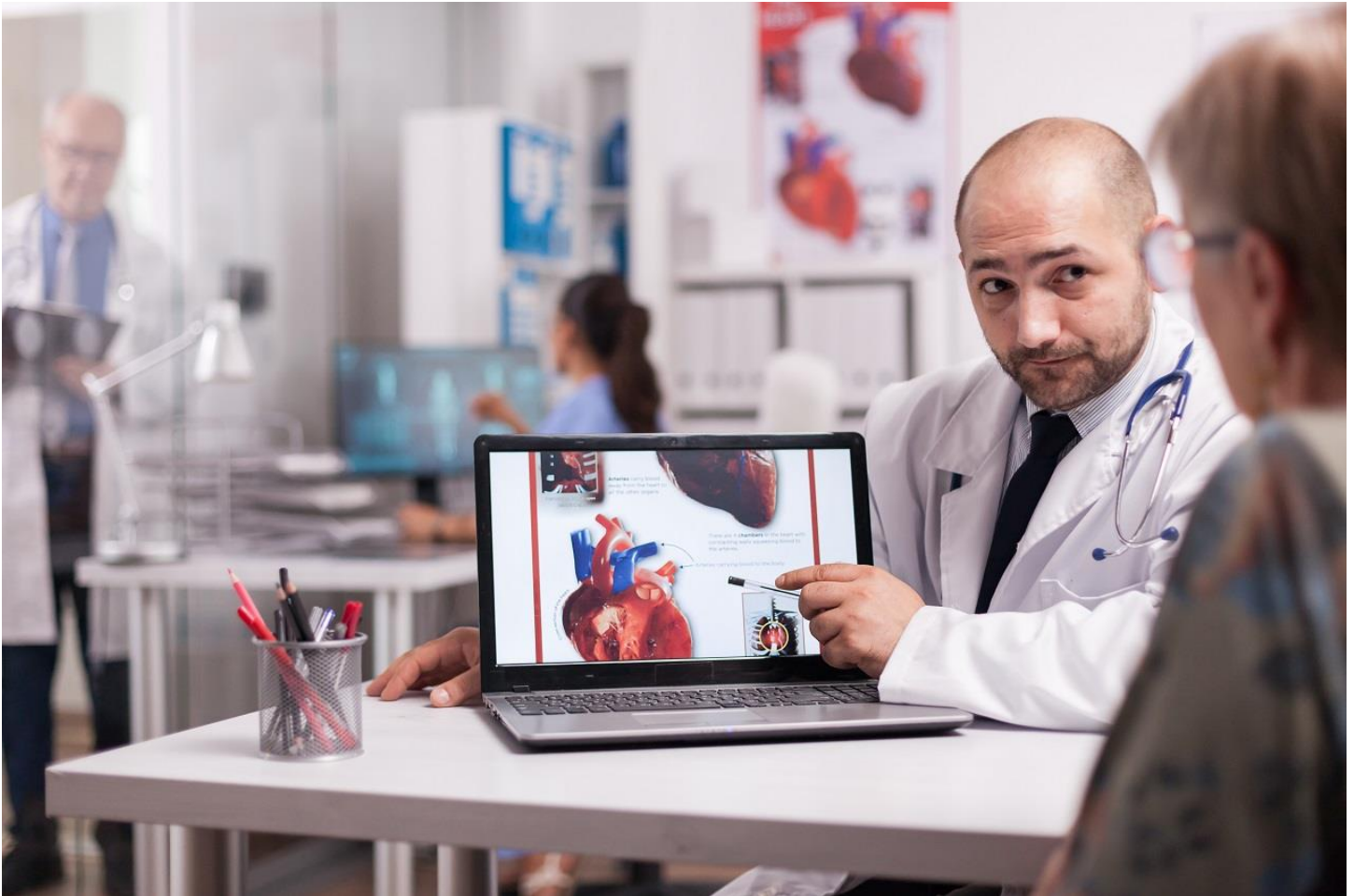


Figure 5 Protecting and Nurturing Your Heart

The most common change in your heart is the stiffening of the blood vessels and arteries, causing your heart to work harder to pump blood through them.

The heart muscles change to adjust to the increased workload.

Your heart rate at rest will stay about the same, but it won't increase during activities as much as it used to.

These changes increase the risk of high blood pressure (hypertension) and other cardiovascular problems.

Your Bones, Joints, and Muscles

With age, bones tend to shrink in size and density, weakening them and making them more susceptible to fracture.

You might even become a bit shorter.

Muscles generally lose strength, endurance, and flexibility — factors that can affect your coordination, stability, and balance.

Your Digestive System

Age-related structural changes in the large intestine can result in more constipation in older adults.

Other contributing factors include a lack of exercise, not drinking enough fluids, and a low-fiber diet.

Medications, such as diuretics and iron supplements, and certain medical conditions, such as diabetes, also might contribute to constipation.

Your Memory And Thinking Skills

Your brain undergoes changes as you age that may have minor effects on your memory or thinking skills.

For example, healthy older adults might forget familiar names or words or find it more difficult to multitask.

The Trends

As I pointed out earlier,

The fundamental goal of biological science research into aging isn't so much to extend lifespan as to maximize healthy longevity or healthspan by delaying the declines in physical function and the increased risks for diseases that go along with aging.

Many of the decisions you will make as you get older are not those concerning life-and-death choices.

Instead, they will be questions about treatments that can lead to more suffering with limited prospects for benefits.

For staying healthy, physical activity is essential, and any movement is good movement.

Walking

Ever tried just walking?

The [people of Okinawa](#) (Japan), on average live to 110 years old.

Yes, they eat really healthy.

As for their exercise, there is, of course, their world-renowned karate.

But most Okinawans do a considerable amount of walking.

They have cars, buses, taxis, but they walk far more than you and me.



Figure 6 Walking is Your Best Exercise

Knees hurting?

Not able to walk?

Check out this 1,000-Year-Old “5 Minute Ritual” that shows you the secret to decreasing knee pain by 58% ==> [HERE](#).



A [recent report](#) provides recommendations on physical activity in older adults.

The report describes how important it is to vary the activities you're doing.

So, try some yoga.

Karate anyone?

Your Mind

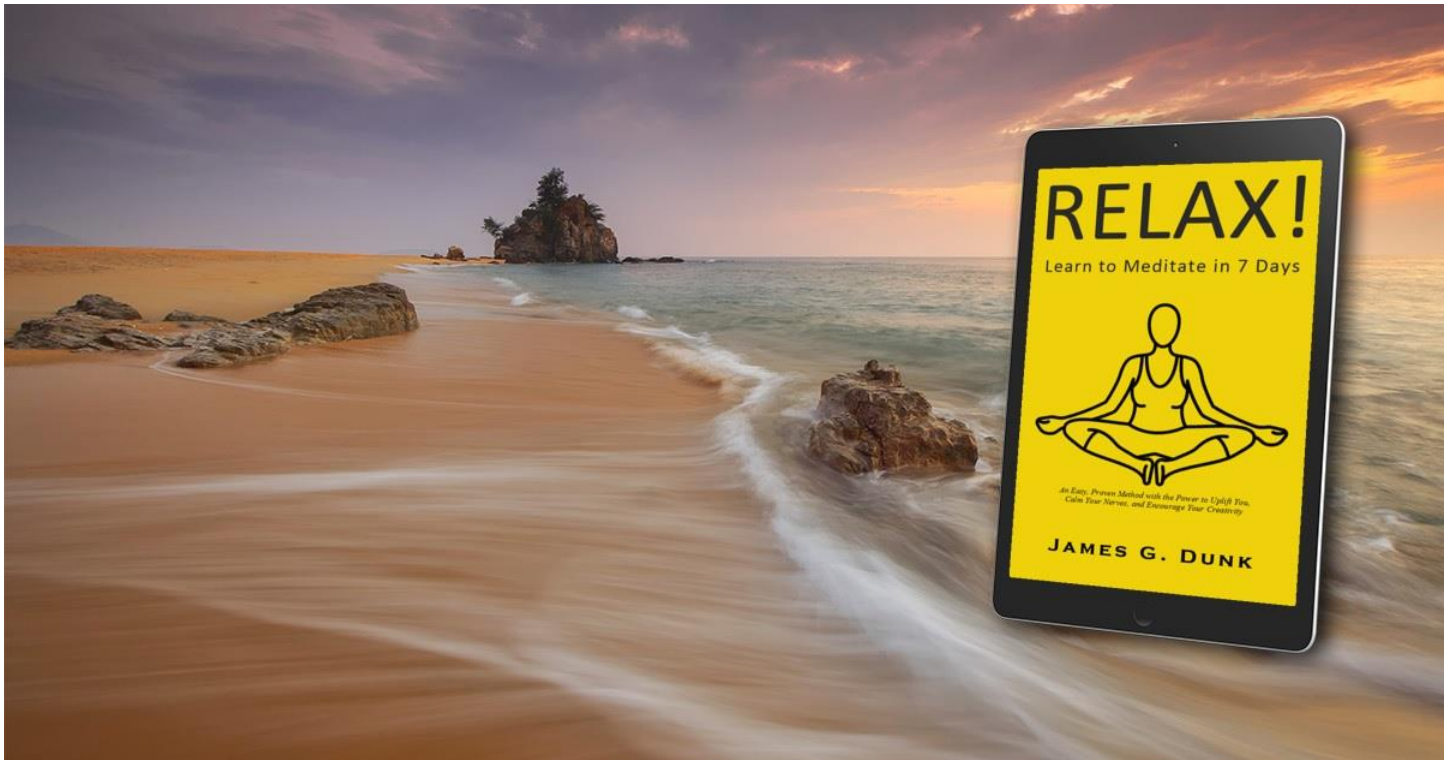
Just as crucial to your quality of life as staying physically active is maintaining the mind's health.

One of the biggest trends is cognitive decline, cognitive change, dementia in all phases.

Cognitive decline and dementia are primary reasons for nursing home institutionalization.

Cognitive well-being is a fundamental determinant of positive aging.

My friend James Dunk has an outstanding planning and mediation journal.



Get your **FREE** copy here → [Meditation Journal](#).

Your Community

Social determinants of health, such as where a person is born and lives and whether that person lives in wealth or poverty, are critical factors in healthy aging.

Most of us are going to be 85, but we're not going to be 100.

The annual mortality rate for those older than 100 is about 30 percent.

Living beyond 100 for most people is so far beyond where we are now that we will not get there soon.

You Are More Prone to Dehydration

Water makes up about 60% of your body.

It's essential to stay hydrated at any age since your body continually loses water, mainly through sweat and urine.

Additionally, people over 40 are more prone to dehydration.



Figure 7 Water: The Source of Life

Your body detects thirst through receptors found in the brain and throughout the body.

However, as you age, these receptors may become less sensitive to water changes, making it harder for them to detect thirst.

Additionally, your kidneys help your body conserve water, but they tend to lose function as you age.

Kidney Problems... Did You See This?

When your kidneys are working correctly, they perform five main functions which are critical for health:

1. Clean waste materials, certain chemicals, and toxins from the blood
2. Retain or excrete salt and water to maintain homeostasis
3. Regulate blood pressure
4. Stimulate bone marrow to make red blood cells
5. Control the amount of calcium and phosphorous absorbed and excreted

You may not even experience any symptoms until your kidney disease is well advanced.

Early signs that the kidneys may be diseased include blood or protein in the urine or elevated blood pressure readings.

If the thought of having getting kidney disease and going on dialysis fills you with dread ...

Then it's time to get proactive and make some lifestyle changes.

[Check out the program](#) below and discover how to overcome kidney disease and quickly improve kidney health with proper nutrition, including microgreens.



All Natural
Kidney Health
& Kidney Function
Restoration Program

*Everything You Need To
Know To Improve Your
Kidney Health, Avoid
Dialysis and Live A
Better Quality Of Life!*

Click Here!

==> [Find out how to Permanently Avoid Dialysis!](#)

Get Proactive and Improve Your Health

Unfortunately, dehydration comes with harsh consequences the older you are.

Long-term dehydration can reduce the fluid in your cells, reducing your ability to absorb medicine, worsening medical conditions, and increasing fatigue.

That's why it's essential to make a conscious effort to drink enough water daily.

If you find drinking water a challenge, try having one to two glasses of water with each meal.

Otherwise, try carrying a water bottle as you go about your day.

The Science

The interest in fresh, practical foods is driven by our growing interest in nutrition that supports health and longevity.

Microgreens have massive potential for replacing leafy vegetables and dramatically improving the human diet.

Although there is limited available [scientific information](#) as a new crop, the expanding research into microgreens continues to show their vast potential as a superfood.

Microgreens Nutrients That Help You as You Age

Several nutrients may benefit you as you age, including:



Figure 8 Varieties of Microgreens

Potassium: A higher potassium intake is associated with a lower risk of high blood pressure, kidney stones, osteoporosis, and heart disease, all of which are common as we age.

The most abundant element found in all the microgreen samples was potassium, especially potassium values were highest in [wasabi microgreens](#).

Omega-3 fatty acids: Heart disease is the leading cause of death among the elderly. Studies have shown that omega-3 fatty acids can lower heart disease risk factors like high blood pressure and triglycerides.

[Chia microgreens](#) have plenty of omega-3 fatty acids.

Magnesium: Magnesium is an essential mineral in the body.

Unfortunately, as you get older, your risk of deficiency increases because of inadequate intake, medication use, and age-related gut function changes.

[Radish microgreens](#), especially daikon, red, ruby, and rapini with more than 80mg per 100 gm, are full of magnesium.

Iron: Deficiency increases as you age. This may cause anemia, a condition in which the blood does not supply enough oxygen to the body.

[Arugula, Tuscan kale, purple kohlrabi, and red komatsuna](#) contain more than 0.70 mg per 100 gm of iron.

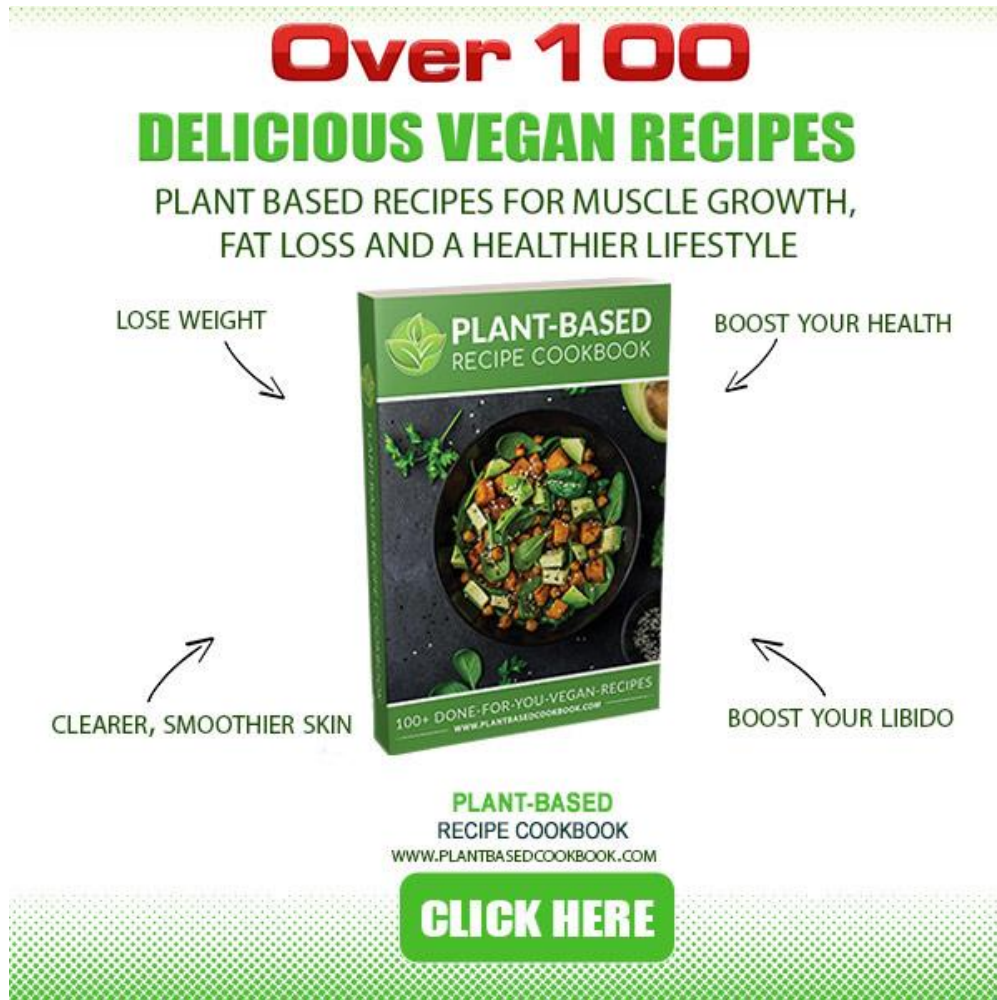
You can get most of these nutrients, fruits, vegetables, fish, and lean meats

But by adding microgreens to your nutrition, you literally “get more for less.”

I just wanted to share a tasty breakfast recipe that a lot of people are talking about.

This morning, I cooked myself a delicious Peanut Butter Banana Quinoa Bowl!

I got this recipe from my good friend Justin Kaye's Plant-Based Recipe Cookbook ==> [Click here](#).



Over 100
DELICIOUS VEGAN RECIPES
PLANT BASED RECIPES FOR MUSCLE GROWTH,
FAT LOSS AND A HEALTHIER LIFESTYLE

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BOOST YOUR HEALTH

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If you haven't already tried this recipe, I absolutely recommend giving it a try tomorrow morning.

You can also eat it at any time of the day!

I'm about 110% sure you'll like it!

==> [Click here](#).

Justin Kaye's Vegan Recipe Cookbook features more than 100 Delicious, Done-for-You Plant-Based Recipes that are super easy to make.

Eat Now! Microgreens Can Prevent Deficiencies

Aging is linked to changes that can make you prone to deficiencies in calcium, vitamin D, vitamin B12, iron, magnesium, and several other vital nutrients.

It may also reduce your ability to recognize sensations like hunger and thirst.

Luckily, you can take actions to prevent these deficiencies.

Make a conscious effort to stay on top of your water and food intake, eat various nutrient-rich foods, and consider taking a supplement.

All these actions can help you fight deficiencies and stay healthy as you get older.

The Trends

The term “juicing” is often associated with fasting.

Indeed, juice fasts have become popular, thanks in large part to television infomercials and medical programs.

A juice fast is a commitment for a certain length of time to only consume raw vegetable or fruit juice, water, and herbal non-caffeinated teas.

The Science of Fasting Through Juicing: How It Works

A popular reason to begin a juice fast, or “cleanse,” is to shed excess weight or get a running start on a weight-loss program.

An often surprising consequence of a successful cleanse is an improvement in mental clarity, energy levels, skin tone, and sleep quality.

Many people report that they simply feel “lighter” after a juice fast.

The simple explanation of a juice fast resulting in detoxification is this:

- *A body receives all its nourishment from vegetable juices only.*
- *Since the digestive system is barely involved in the processing of the juices, it is allowed to rest.*

When the digestive system is not defending itself against new toxins, it can release stored toxins surrounded by fat.

As toxin-containing fat cells are released, the body feels lighter and more energetic.

There are many kinds of targeted cleanses, such as the **intestinal cleanse** and the **gall bladder cleanse**.



Figure 9 Fasting and Juicing Your Way To Health

Fasting advocates agree that the body is a miraculous machine.

But they point out that air and water pollution, sedentary lifestyles, fried food, sugar-laden diets, and other ills of the modern world have created such an imbalance for our body systems that help, in the form of juice fasting, is needed.

Whether for weight loss or just general good health, a juice fast needs to be entered into thought, commitment, and planning.

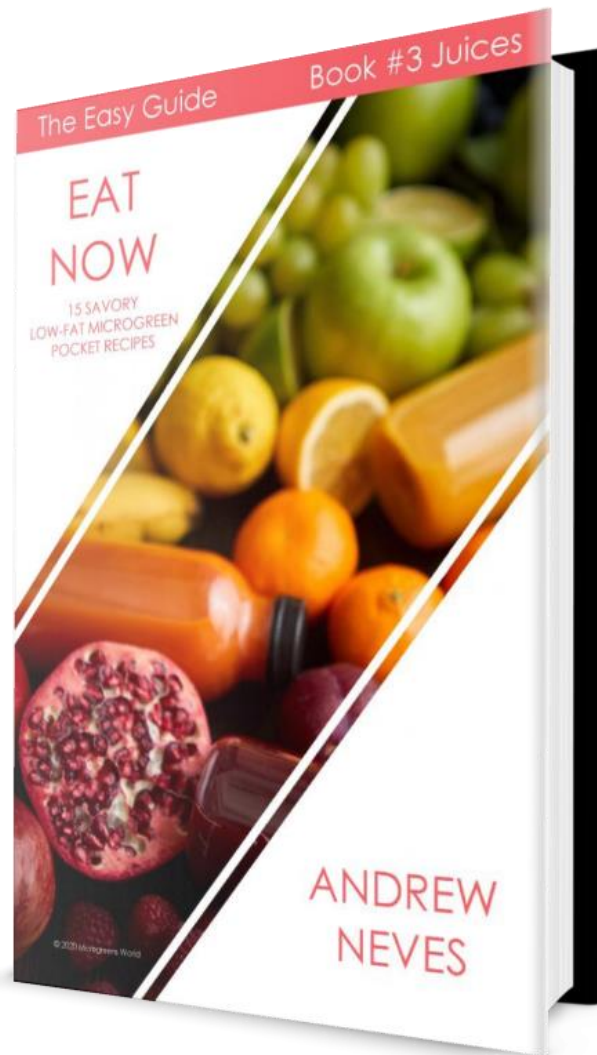
Unlike someone who decides to buy a juicer and make a juice to take to the gym each morning, a faster will be consuming juices only, usually six per day.

There may be digestive (constipation and/or diarrhea) issues involved in the first few juice fast days.

Since that can affect your activities, you may want to schedule a fast when you can be near home with little work and social obligations.

Transitioning into a fast by making a couple of juices each day and increasing your raw vegetable intake may reduce the problem.

Pick up a copy of my new book, **Eat Now! 15 Microgreens Juice Recipes**, [available on Amazon](#).



Managing Your Juice Fast

You will want to be sure to have an adequate supply of fresh vegetables and greens on hand. Since you will not be eating any solid foods at all, you can't simply open the refrigerator for something to "tide you over" until you get out to the supermarket.

Mood swings and sleep issues may be noticeable in the first few days of your juice fast.

It may be wise to sit down with your partner or roommates and get them on board with planning.

Interestingly, you may find that you are not tempted by the sights and smells of food in your home or at the grocery store.

If your juices are filling enough (14 – 16 ounces each serving), you may be entirely satisfied and not feel hungry.

There are no guarantees, of course.

Here is a good tip when you are tempted to snatch an unfinished sandwich or even munch on a cucumber slice while making juice.

Visualize your stomach enjoying its vacation from solid foods!

Nutritional Requirements As You Age

Your nutritional requirements will change as you age.

And for elderly adults (65+), those requirements have some crucial differences to people in other age groups.

According to the World Health Organization, older persons are more at risk of being malnourished.

Malnourishment commonly occurs because you may not have the funds to buy certain foods, suffer from a chronic illness, or lack nutrition.

So, as you age, or if you're elderly, your need for some nutrients increases, while your need for other nutrients decreases.

Let's have a look.

Energy

Your energy requirements decline as you get older.

Still, it is vitally important that the nutrients you get remain the same.

For example, as you age, you want to reduce your carbohydrates like pasta and potatoes but eat more spinach and kale and their microgreens.

We each know our own energy requirements.

If you're underweight, you need to increase your energy intake.

If you're overweight or over 55, you want to decrease your energy intake.

Nutrients

Nutrients provide us with energy, the building blocks for repair and growth, and the elements necessary to control biochemical processes in our bodies.

Here are the six major nutrient groups.

Water is your most important, followed by:

Macronutrients

- Carbohydrates (CHO)
- Lipids (fats)
- Proteins

Micronutrients

- Vitamins
- Minerals

Over three billion people are currently micronutrient malnourished.

Water

In the last chapter, we talked about water.



Figure 10 Preventing Dehydration is one Key To Aging Slowly

But it is worth repeating that as you age, you are particularly at risk of dehydration due to a diminished ability to sense thirst.

Try to drink about six cups of water a day.

If your nutrition is high in fiber, you will want to drink more.

Carbohydrates

Many doctors still advise that you get 45 to 65 percent of calories, or about 130 grams, from carbohydrates based on nutrition.

But new science shows ([watch Fat Fiction with Dr. Mark Hyman](#)) the high carb, low-fat diet is unproven.

Instead, you want to increase your fat intake and lower your carbs to 20-50 gm - and that's at most ages.

Yes, I'm talking about "the Keto Diet."

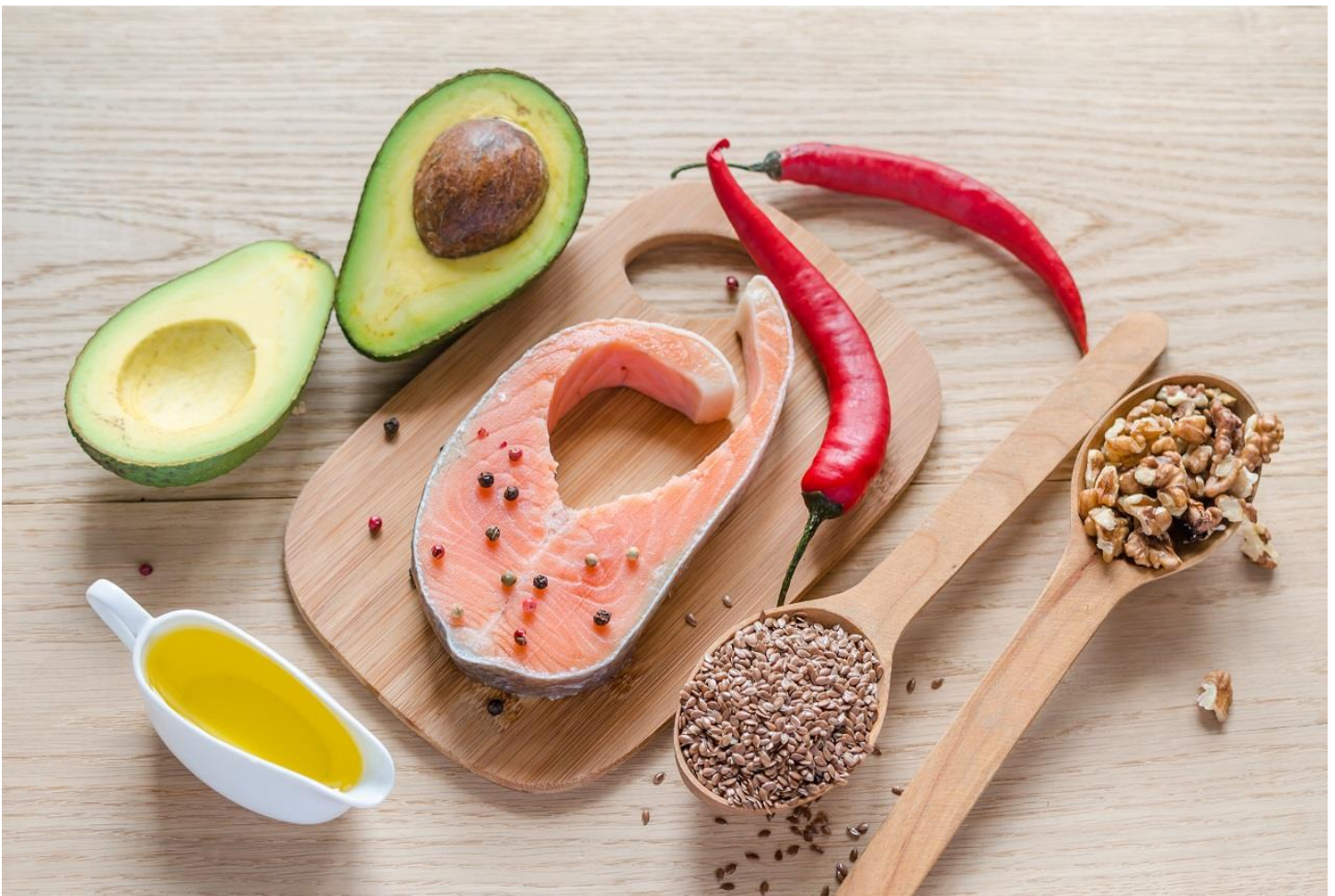


Figure 11 Oils and Fats are Very Important

Avoid complex carbohydrates such as sweet potatoes and other starchy vegetables.

Choose beans, greens, and 100% whole grains like brown rice.

You can start right now on your journey to a lean and healthy body, and I want to prove it to you.

It's simple:



CUSTOMKETODIET

8 week fully customized
keto meal plan for your weight loss goals
and food preferences.

[Click here](#) to claim your 100%-made-for-you keto meal plan designed to help you lose fat, boost energy levels, and improve health.

Know Your Fats

Eat lots of nuts, seeds, coconuts, avocados, olives, olive oils, and fish.

Avoid foods with trans-fat, like “fries,” to help reduce your risk of heart disease.

Protein

The recommended intake is difficult to apply to all older people.

Still, a figure of 2-3g of protein per kilogram of body weight should meet all requirements.

If you're over 65 with a medical condition, please see your doctor before making any nutrition changes.

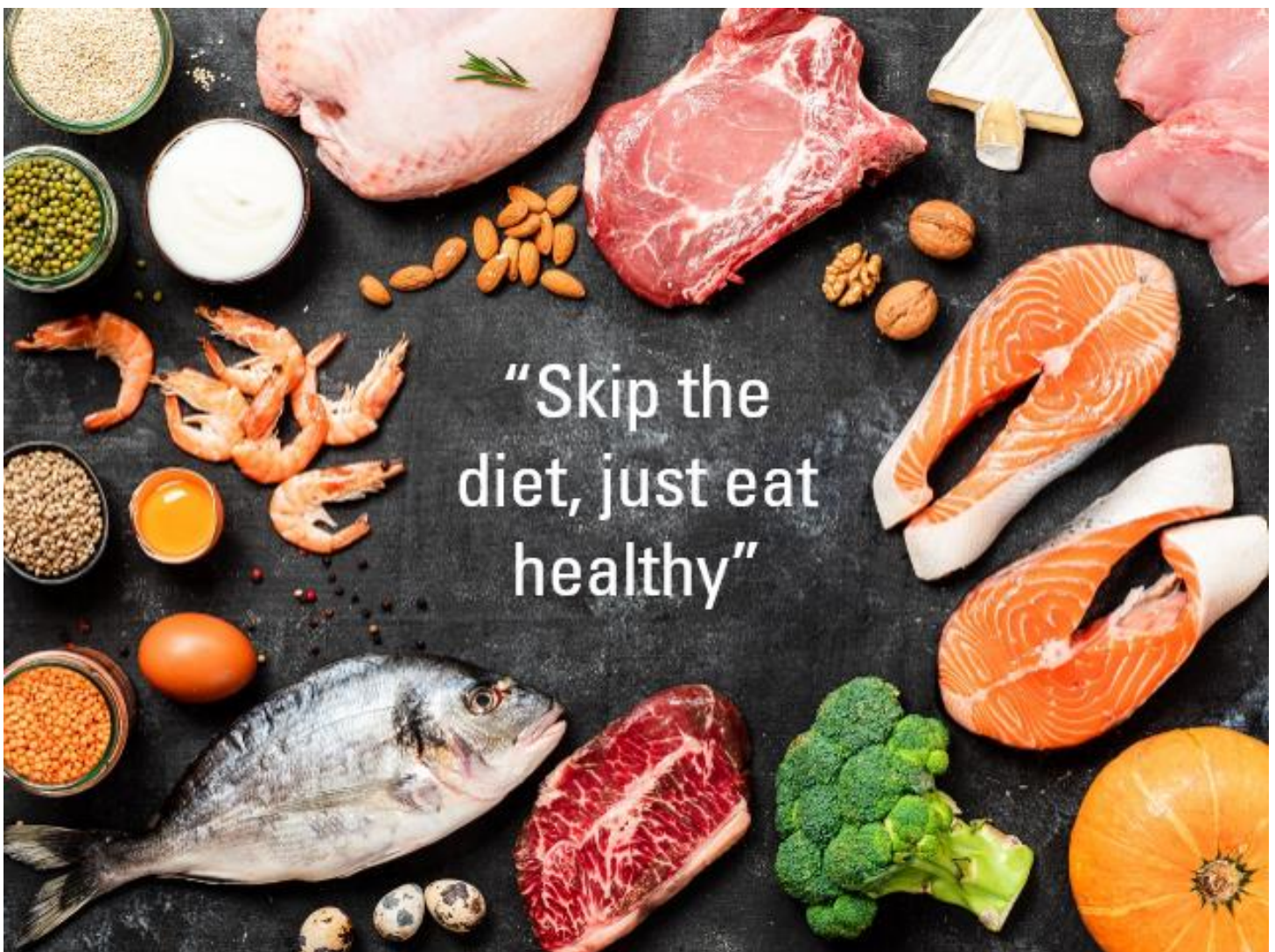


Figure 12 A Healthy Flexitarian Nutrition

A serving or two of meat or poultry each week is okay.

Don't overdo it.

Try fish (tuna, snapper, salmon) instead.

You know I advocate a plant-based diet.

Eggs, cheese, peas, beans, and lentils are other protein sources used as alternatives.

Dietary Fiber

Within the past 20 years, we have come to also consider dietary fiber as an essential nutrient.

As you age, you want to maintain an adequate intake of dietary fiber.

Lack of dietary fiber may be a contributory factor to the development of large bowel cancer.

Use 100% wholemeal instead of white bread.

Fruit (apples, raspberries, grapes), carrots, beans, and nuts all have fiber.

Stick with a plant-based diet, and you can't go too wrong.

But the general idea is to maintain your energy as you age.

Food As Medicine

When it starts to get cold, it means flu season.

Nasturtium Microgreens

And wow, have I found one of Earth's most nutrient-rich plants for you!

Nasturtium, Latin *nasus tortus*, meaning "twisted nose," is probably a reference to what you would do when you smelled or ate their pungent leaves!

Unlike other microgreens, you are also easily attracted to the giant leaves of nasturtium microgreens.

Their multi-colored stems are shades of light pink to yellow.

The leaves are scientifically proven to be very medicinal, have high amounts of Vitamin C, and are also a natural antibiotic.

As antibiotics, the leaves help to treat minor colds and flu.

You can eat one to two leaves three times a day for full benefits.

They also make delicious tea.

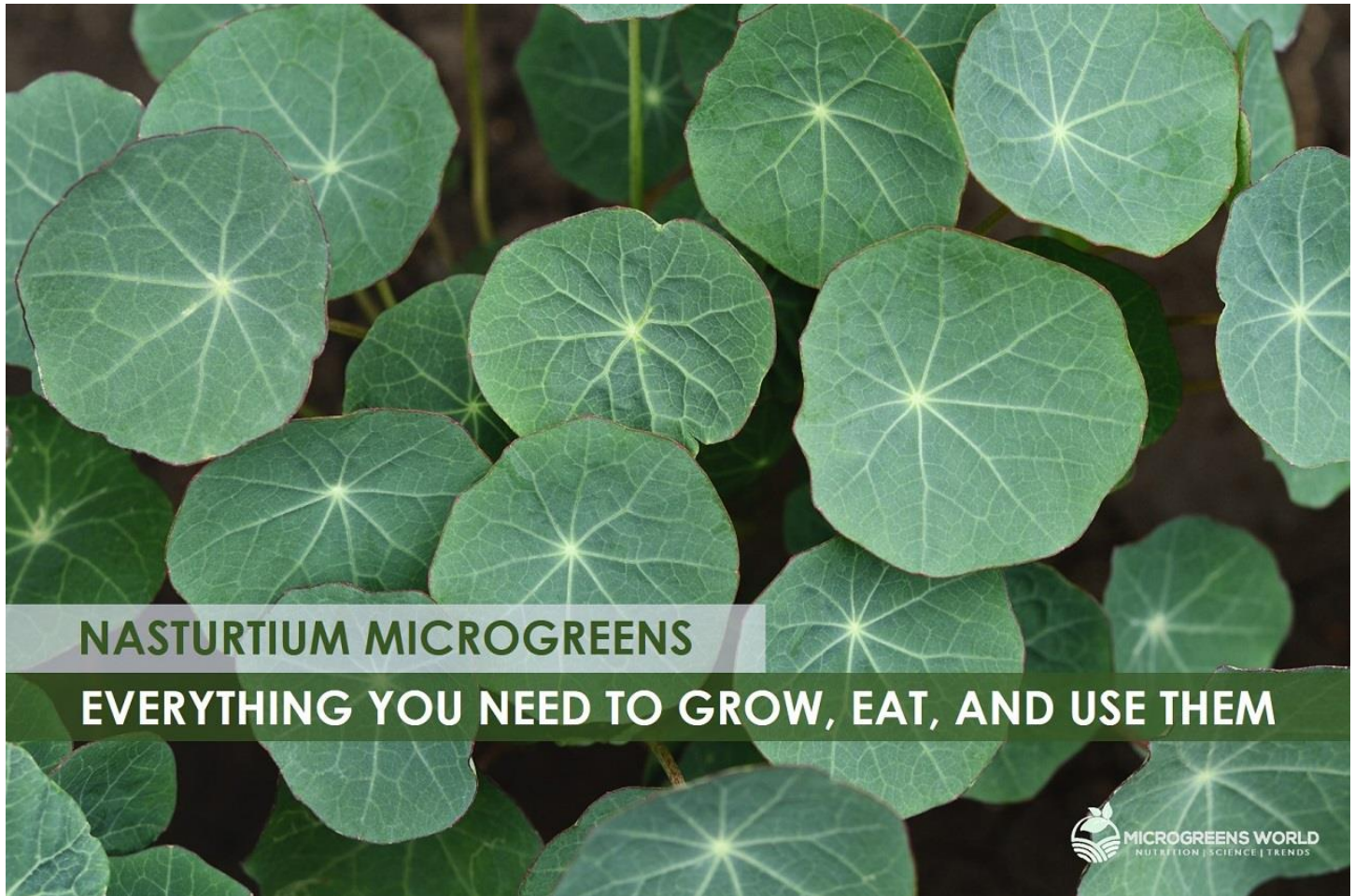


Figure 13 Nasturtium Microgreens

If you want to learn more about the nutrients in nasturtium microgreens, visit my post, [**Nasturtium Microgreens: Everything You Need to Grow, Eat, and Use Them.**](#)

Nutritional Requirements As You Age

In the previous chapter, we reviewed how your nutritional requirements will change as you age.

I told you that for elderly adults (65+), those requirements have some crucial differences to people in other age groups.

You now know that your energy requirements decline as you get older.

Still, it is vitally important that the nutrients you get remain the same.

This week we will look at **micronutrients – vitamins and minerals** – that you should be adding to your nutrition.

We will also look at foods and microgreens you can add.

Vitamins

Vitamins are micronutrients that help your body cells usually function and promote those cells' growth and development.

To learn more about microgreens and vitamins, check out this blog post: [Eat To Meet Your RDA: The 12 Microgreens Vitamins You Need](#).

Vitamins that your body cannot do without to function correctly are called **essential vitamins**. There are 13 essential vitamins.

Essential vitamins are grouped into two categories:

There are **nine water-soluble vitamins**. They are not stored in the body.

- Vitamin B1 (thiamine)
- Vitamin B2 (riboflavin)
- Vitamin B3 (niacin)
- Vitamin B5 (pantothenic acid)
- Vitamin B6
- Vitamin B7 (biotin)
- Vitamin B9 (folate, folic acid)
- Vitamin B12 (cyanocobalamin)
- Vitamin C

Any leftover water-soluble vitamins leave the body through the urine.

Although the body keeps a small reserve of these vitamins, they must be taken regularly to prevent a body shortage.

Vitamin B12 is the only water-soluble vitamin that can be stored in the liver for many years.



Table 1 Vitamin B-12 Foods

And there are four non-essential vitamins:

- **Vitamin B4 (adenine)**
- **Vitamin B8 (inositol)**
- **Vitamin B10 (para amino benzoic acid)**
- **Vitamin B11 (salicylic acid)**

Water-soluble Vitamins

	Benefits	Food Sources
B1	<ul style="list-style-type: none"> ▪ Metabolism: <i>Converts nutrients into energy</i> 	<ul style="list-style-type: none"> ▪ Sunflower seeds ▪ Wheat germ
B2	<ul style="list-style-type: none"> ▪ Converts food to energy ▪ Antioxidant 	<ul style="list-style-type: none"> ▪ Mushrooms ▪ Organ meats (e.g., liver)
B3	<ul style="list-style-type: none"> ▪ Cellular signaling ▪ Metabolism ▪ DNA production and repair 	<ul style="list-style-type: none"> ▪ Lentils ▪ Tuna ▪ Chicken
B4	<ul style="list-style-type: none"> ▪ <i>Speeds up metabolism</i> ▪ <i>Protein synthesis</i> 	<ul style="list-style-type: none"> ▪ Bee pollen ▪ Raw unprocessed honey ▪ Herbs (thyme, sage, etc.)
B5	<ul style="list-style-type: none"> ▪ Converts food to energy ▪ Hormone and cholesterol production 	<ul style="list-style-type: none"> ▪ Avocado ▪ Yogurt ▪ Fish ▪ Liver
B6	<ul style="list-style-type: none"> ▪ Amino acid metabolism ▪ Red blood cell production ▪ Neurotransmitter creation 	<ul style="list-style-type: none"> ▪ Chickpeas ▪ Salmon ▪ Potatoes
B7	<ul style="list-style-type: none"> ▪ Carbohydrate and fat metabolism ▪ Regulate gene expression 	<ul style="list-style-type: none"> ▪ Beans ▪ Yeast ▪ Eggs ▪ Salmon ▪ Cheese ▪ Liver
B8	<ul style="list-style-type: none"> ▪ <i>Cells growth</i> ▪ <i>Fatty acids production</i> ▪ <i>Maintains blood sugar levels</i> 	<ul style="list-style-type: none"> ▪ Royal jelly ▪ Brewers' yeast ▪ Legumes ▪ Swiss chard ▪ Soy
B9	<ul style="list-style-type: none"> ▪ Cell growth ▪ Amino acid metabolism ▪ Forming red and white blood cells ▪ Correct cell division 	<ul style="list-style-type: none"> ▪ Leafy greens ▪ Beans ▪ Liver

	Benefits	Food Sources
B10	<ul style="list-style-type: none"> Protects against ultraviolet light Amino Acid Metabolism Healthy skin and hair 	<ul style="list-style-type: none"> Whole grains Wheat germs Brewer's yeast Eggs Liver
B11	<ul style="list-style-type: none"> Anti-infective agent An antifungal agent 	<ul style="list-style-type: none"> Willow bark Sweet potato Nuts Olive oil
B12	<ul style="list-style-type: none"> Neurological function DNA production Red blood cell development 	<ul style="list-style-type: none"> Eggs Seafood Dairy Meats
C	<ul style="list-style-type: none"> Reduce the symptoms of flu Wound healing Increase iron absorption Helps bones, skin, and muscles grow 	<ul style="list-style-type: none"> Leafy greens Broccoli Bell peppers Papaya Strawberries Cantaloupe

Table 2 Water-soluble Vitamins

Folate

The Required Daily Allowance (RDA) for Vitamin B (folic acid) is 300mcg/day for persons over 65.

If you don't eat enough folate, you can develop **megaloblastic anemia** and [**macrocytosis**](#).

Folate is destroyed by prolonged cooking and poor food choice, i.e., 'tea and toast' diet.

Vitamin C

The RDA is 60mg/day.

Up to 50% of vitamin C can be lost in cooking and during the storage of food.

A glass of freshly squeezed orange juice containing 40-60mg/ 100ml of vitamin C taken daily will achieve the recommended intake.

Alternatively, drinks rich in vitamin C, such as grapefruit juice, fruit drinks with added vitamin C, or **blackcurrant drinks with added vitamin C such as Ribena**, can be used.

Suppose you are older than 60 and are not taking drinks rich in vitamin C.

In that case, you should eat either one orange, half a grapefruit, two satsumas/mandarins, or one kiwi fruit at least three to four times weekly to achieve the recommended intake of vitamin C.

Fat-soluble Vitamins

Fat-soluble vitamins are stored in the body's fatty tissue. The four fat-soluble vitamins are

- Vitamin A
- Vitamin D
- Vitamin E
- Vitamin K

These vitamins are absorbed more easily by the body in the presence of dietary fat.

	Benefits	Food Sources
A	<ul style="list-style-type: none"> ▪ Helps night vision ▪ Makes red blood cells ▪ Fight infections ▪ Prevent damage to cells ▪ Prevents age-related macular degeneration 	<ul style="list-style-type: none"> ▪ Orange veggies and fruits ▪ Spinach, kale, and other greens ▪ Dairy foods ▪ Shrimp and salmon
D	<ul style="list-style-type: none"> ▪ Strong bones ▪ Neurotransmitter health ▪ Fights germs ▪ Prostate Health 	<ul style="list-style-type: none"> ▪ 10 to 15 minutes of sunshine ▪ Salmon, tuna, and mackerel ▪ Egg yolks
E	<ul style="list-style-type: none"> ▪ Antioxidant ▪ Inter-cell communication ▪ Blood flow 	<ul style="list-style-type: none"> ▪ Spinach ▪ Broccoli ▪ Sunflower seeds ▪ Nuts (almonds, hazelnuts, and peanuts)
K	<ul style="list-style-type: none"> ▪ Blood clotting ▪ Healthy bones 	<ul style="list-style-type: none"> ▪ Leafy greens (spinach, kale) ▪ Broccoli ▪ Natto (fermented soybeans)

Table 3 Fat-soluble Vitamins

Vitamin B12

Some adults older than 50 may not be able to absorb enough vitamin B12.

Lean meat and some fish and seafood are sources of vitamin B12.

Ask your doctor or a registered dietitian nutritionist if you need a vitamin B12 supplement.

It is important to remember that serum levels of B12 decline with age.

Many cases of low serum B12 are associated with malabsorption due to gastric atrophy.

Excess supplementation of folic acid in the presence of vitamin B12 deficiency can mask the neurological symptoms of B12 deficiency.

Vitamin D

The **sunshine vitamin** RDA is 7.5g/day.

Fifteen to twenty minutes spent out of doors daily during the spring and summer months safeguards against vitamin D deficiency.

As the homebound or inactive older person has reduced sunlight exposure, vitamin D's dietary intake is essential.

Liver, eggs, and oily fish should also be included regularly (once a week each).

Minerals



Table 4 Food With High Minerals Content

Minerals are essential for your body to stay healthy. As you age, you need more minerals in your body.

There are two kinds of minerals: **macrominerals and trace minerals**.

You need more massive amounts of microminerals.

They include:

- Calcium
- Phosphorus
- Magnesium
- Sodium
- Potassium
- Chloride
- Sulfur

You only need small amounts of trace minerals. They include:

- Iron
- Manganese
- Copper
- Iodine
- Zinc
- Cobalt
- Chromium
- Fluoride
- Selenium

Critical Minerals Your Body Needs

	Benefits	Food Sources
Ca	<ul style="list-style-type: none"> ▪ Prevents bone loss ▪ Building block for your bones and teeth ▪ Crucial to muscle movement, including your heart 	<ul style="list-style-type: none"> ▪ Green leafy (Kale, Spinach) ▪ Broccoli ▪ Milk ▪ Sardines ▪ Bread ▪ Hard Cheese ▪ Yogurt
Ka, Na	<ul style="list-style-type: none"> ▪ Decrease high blood pressure ▪ Prevents kidney stones ▪ Prevents bone loss 	<ul style="list-style-type: none"> ▪ Fresh Fruits ▪ Fresh Vegetables ▪ Milk

	Benefits	Food Sources
Fe	<ul style="list-style-type: none"> Prevents anemia Blood formation Carries oxygen into the body 	<ul style="list-style-type: none"> Dried beans Nuts Black pudding Liver Kidney
Cr	<ul style="list-style-type: none"> Blood sugar levels steady Control blood pressure 	<ul style="list-style-type: none"> Broccoli Beet greens Spinach Garlic Date Tuna

Table 5 Critical Minerals Your Body Needs

Calcium

The RDA is 800mg/day.

A low calcium intake in elderly people who are housebound or inactive may compound this loss.

Physical activity is necessary to maintain a skeletal structure but ensuring an adequate dietary intake in all elderly people may offer some benefit.

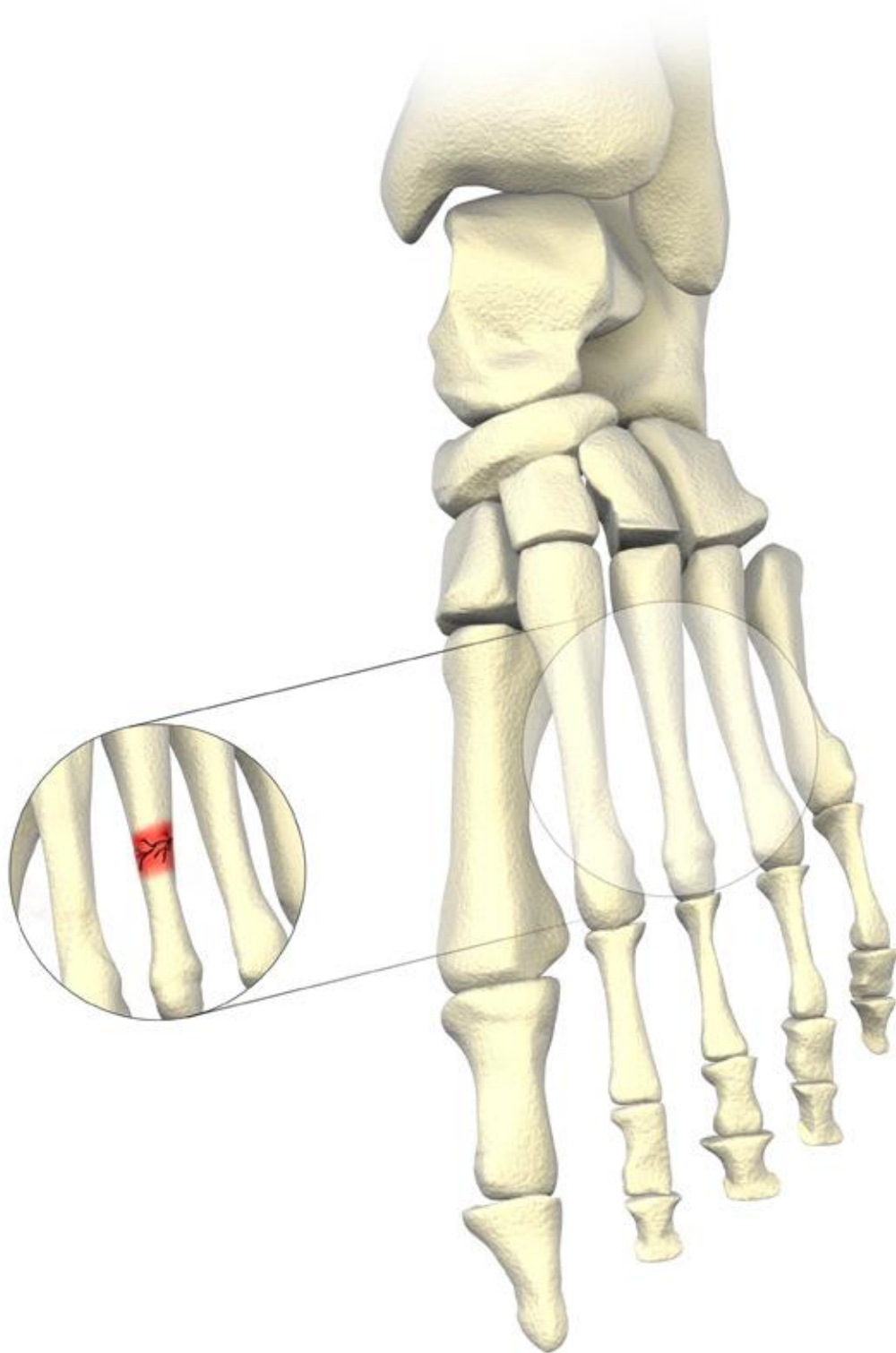


Figure 14 Stress Fracture of the Foot

Sodium and Potassium

The average adult over 55 should get 4,700 milligrams of potassium per day while limiting sodium consumption to 1,500 milligrams per day.

Potassium is one of the most essential electrolytes in the body.

Electrolytes are minerals that ionize when dissolved in water and can conduct an electric current.

It is the primary positive ion within the cells.

It has a crucial role in regulating blood pressure, controlling water and acid.

Iron

The RDA is 9mg/day.

Iron is an essential nutrient in the diet for all age groups.

The requirement for post-menopausal females is reduced, and the mucosal uptake of iron is independent of age.

Therefore, an iron deficiency

anemia in this group may not necessarily be nutritional in origin.

Low intakes, however, can occur in elderly people living alone, particularly if they do not prepare hot meals.

An adequate vitamin C intake is needed to ensure enough iron absorption.

Therapeutic Diets

Eating right and staying fit is essential, no matter what your age.

As we get older, our bodies have different needs, so certain nutrients become especially important for good health.

Immobility or inactivity often leads to unhealthy aging.

It is, therefore, essential to account for this.

The benefit of physical exercise on health has been shown in people in their 90th year, so it is never too late to start.

Calorie Requirements As you Age

I am sure you've heard that the number of calories you need changes as you age.

Seniors generally don't need to eat as many calories as younger adults yet may need more essential nutrients.



Figure 15 Caloric Content of Select Foods

The number of calories you should be consuming each day varies according to your

- Gender
- Height
- Weight
- Body composition and, perhaps most of all,
- Activity level.

Whether your goal is to maintain or lose body weight, knowing this number is helpful. Here is how.

What Are Calories?

Calories measure the amount of [energy in food](#).

The calorie you see on food labels is a kilocalorie or 1,000 calories.

A calorie (kcal) is the amount of energy needed to raise 1 kilogram of water 1 degree Celsius.

Consume fewer calories than your body burns off each day.

You will create a calorie deficit and will subsequently lose weight.

You Need Fewer Calories as You Age Due to Muscle Loss

As you age, you will need fewer calories, generally because you are less active.

Your [basal metabolic rate \(BMR\)](#), the minimal number of calories your body needs for maintaining essential life functions, also drops over time.

There is [some evidence](#) that muscle tissue is more metabolically active than fat.

The more muscle on your body, the more calories you will burn (even at rest).

One more reason to be active and lift some weights to build muscle.

IF YOU TAKE IN MORE CALORIES THAN YOU EXPEND THROUGH BODILY PROCESSES (EATING AND BREATHING) AND PHYSICAL ACTIVITY (STANDING, WALKING, OR RUNNING), YOU WILL GAIN WEIGHT.

So How Many Calories Do I Need?

That number differs between women and men.

The [Dietary Guidelines for Americans 2020-2025](#) suggest that **women over 50** need

- 1,600 calories daily if they are sedentary,
- 1,800 calories a day if they are moderately active, and
- 2,000 to 2,200 calories daily if they lead an active lifestyle

The reference woman is 5 feet 4 inches tall and weighs 126 pounds.

Senior men (over 50) often require more calories than senior women because they generally have larger frame sizes and more muscle mass.

- 2,000 calories daily if they are sedentary,
- 2,200 calories a day if they are moderately active, and
- Men who lead an active lifestyle need 2,400 to 2,800 calories each day.

The reference man is 5 feet 10 inches tall and weighs 154 pounds.

Senior adults with an active lifestyle regularly participate in physical activity equivalent to walking more than 1 to 3 miles daily at a pace of 3 to 4 miles per hour.

This is in addition to physical activity related to daily living.

Getting Personal: Calories per Pound

If you are 50 or over, use your body weight to determine an individualized caloric need for weight maintenance.

[Harvard Medical School](#) suggests that adults need about

- 13 calories for each pound of their body weight if they are sedentary,
- 16 calories per pound if they're moderately active, and
- about 18 calories for each pound of their body weight if they lead an active lifestyle.

For example, a moderately active senior woman weighing 115 pounds would need about 1,840 calories daily.

While a moderately active senior man weighing 160 pounds requires about 2,560 calories a day to maintain his weight.

Weight Loss and The 3500 Calorie Myth

In 2013 the US Center for Disease Control and Prevention (CDC) suggested that overweight and obese [seniors seeking weight loss](#) should reduce their current calorie intake by 500 to 1,000 calories daily.

A pound equals about 3,500 calories.

The 3500-calorie rule problem assumes we all respond to the same calorie reduction with equal weight loss.

Research shows that is not true.

The University of Washington reports that overweight and obese adults need 10 calories for each pound of their desirable body weight daily to reach their goal weight.

Instead of basing your weight loss expectations on the 3500-calorie rule, use the National Institutes of Health's free, online [Body Weight Simulator](#) to set more realistic goals.

The simulator uses your height, current weight, gender, and goal weight to estimate how much you should eat and how much weight loss you can expect over time.

Macronutrient Calories



Figure 16 Macronutrient Caloric Foods

Macronutrients are nutrients that provide your calories.

There are three macronutrients:

- Carbohydrate
- Protein
- Fat

While each of these macronutrients provides calories, the number of calories that each one provides varies.

- Carbohydrate provides 4 calories per gram.
- Protein provides 4 calories per gram.
- Fat provides 9 calories per gram.

Specific percentages of your calories should come from the three different macronutrients, notes the [McKinley Health Center](#).

- 45 to 65 percent should come from carbohydrates,
- 10 to 35 percent from protein and
- 20 to 35 percent from fat

If you are a passive 60-year-old woman following a 1,600-calorie diet, you need

- 180 to 260 grams of carbs,
- 40 to 140 grams of protein, and
- 35 to 62 grams of daily fat.

Food Groups

Include various food groups in your diet to supply your body with plenty of vitamins, minerals, and antioxidants.

Senior Women Senior Men

- Senior women should get 1 1/2 cups of fruit and 2 cups of veggies each day.
- Senior men need 2 cups of fruit and 2 1/2 cups of vegetables.

After age 50, men and women need 3 cups or equivalents from the grain group.

Opting for whole-grain foods helps boost your fiber intake, which helps keep you regular.

You also need lean protein foods to help build muscle mass.

- Senior women need 5 ounces or equivalents from the protein group
- Senior men need 5 1/2 ounces or equivalents.

Get plenty of calcium to help keep your bones healthy.

Senior men and women should get 3 cups or equivalents of daily milk and milk foods.

Other Nutrition

In 2007, Tufts University modified the food pyramid to accommodate older adults. It now has a fiber component.

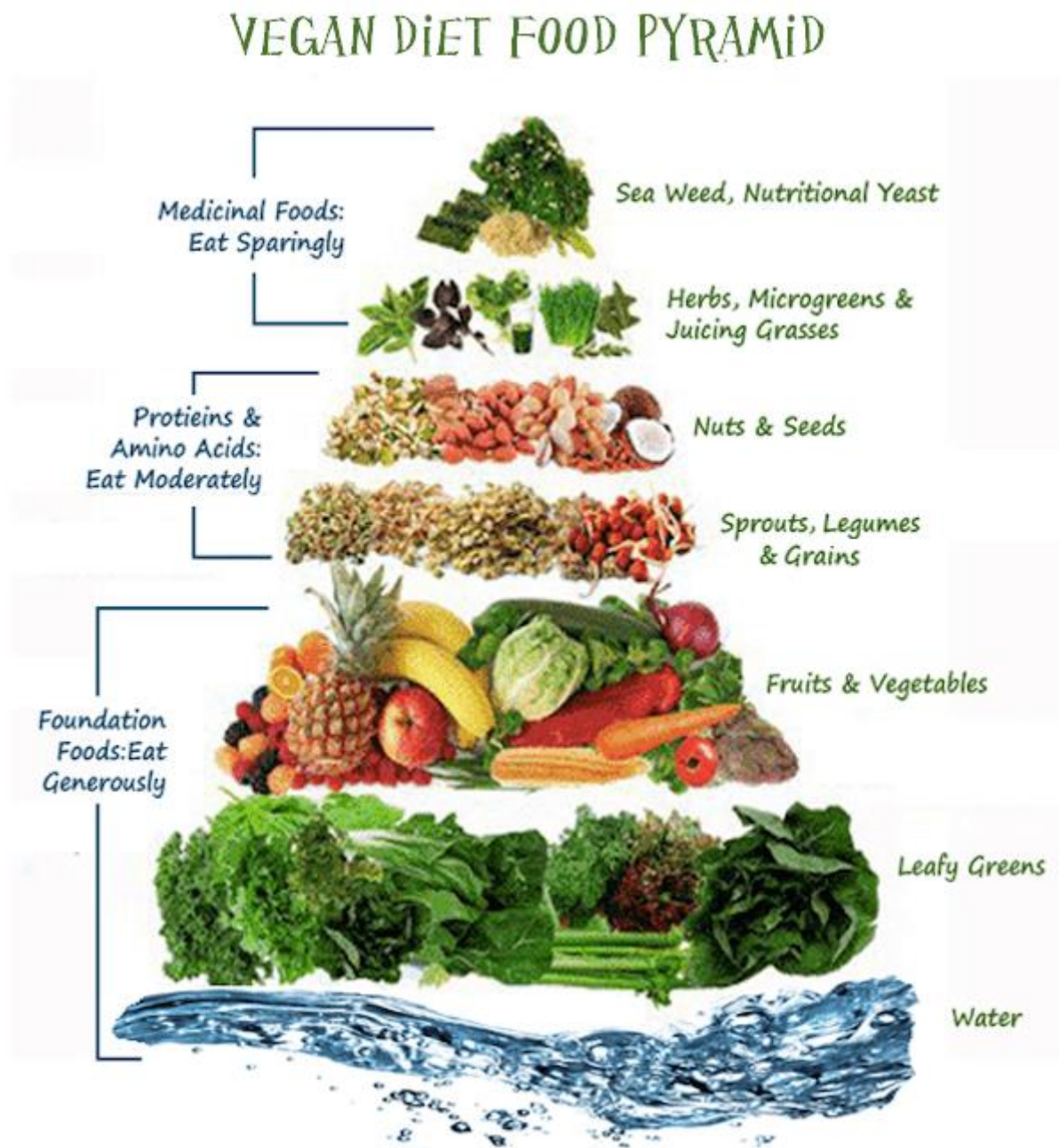


Figure 17 Vegan Diet Food Pyramid

Ensure the calories you get from carbohydrates are rich in fiber, regulating digestion and bowel movements.

After age 60, the thirst mechanism may decrease, so you might not drink enough water, resulting in dehydration.

With every meal, make sure to drink water.

Watching your calories is essential as you get older.

You may be less active, and your digestive tract probably runs slower than it did when you were younger.

If you consume too many calories, you may gain weight and increase your chance of developing type 2 diabetes and other obesity-related diseases.

Talk with your health care providers about your diet.

They can help you determine exactly how many calories are right for you.

“SLOW AGING IS SEEN IN ONE WHO ALWAYS WANTS TO GET UP
AND GO TO WORK IN THE MORNING, MOTIVATED, FEELING
WANTED OR NEEDED; FILLED WITH THE EMOTIONAL AND SPIRITUAL
ASPECTS OF LIFE.” - JOSEPH B. MARION, ANTI-AGING MANUAL

For the past year, I have been using a new relaxation technique.

Today I want to show you a really absurd but beneficial "7 Minute Mindfulness Method".

This will make your mind as calm as water...

Follow this link to discover it...

==> [7 Minute Mindfulness Method](#)



I'm talking about a method that will allow you to sink into relaxation quickly.

It will fill your life with joy and satisfaction...

And teach you how to easily defeat any life problems you may be facing.

And it only takes 7 minutes!

==> [Check it out now.](#)

Enjoy less stress, sleep better, and show up every day as the best version of yourself?

[CLICK HERE TO DISCOVER HOW.](#)

Shift your consciousness from one of lack to one of prosperity and gratitude with a small ritual: *a lit candle, a prayer, meditation, a moment of silence.*

EATING YOUR MICROGREENS EVERY DAY

Ready to eat your microgreens?



They are harvested right after germination and are packed with concentrated nutrients.

Until recently, commercially grown microgreens have only been available to chefs, who use them as flavor accents and garnishes for soups, salads, and sandwiches.

Today, they are available at farmer's markets and [upscale grocery stores](#).

They cost more than mature greens but have over 10 times the goodness.

Commercial Name	Family	Plant Color
Amaranth	Amaranthaceae	red
Celery	Apiaceae	green
Cilantro	Apiaceae	green
Arugula	Brassicaceae	green
Broccoli	Brassicaceae	green
Green Daikon Radish	Brassicaceae	purplish-green
Radish	Brassicaceae	green
Mizuna	Brassicaceae	green
Purple kohlrabi	Brassicaceae	purplish-green
Purple mustard	Brassicaceae	purplish-green
Opal radish	Brassicaceae	greenish-purple
Peppercress	Brassicaceae	green
Red cabbage	Brassicaceae	purplish-green
Red mustard	Brassicaceae	purplish-green
Wasabi	Brassicaceae	green
Beet	Chenopodiaceae	reddish-green
Magenta Spinach	Chenopodiaceae	red
Red beet	Chenopodiaceae	reddish-green
Red orach (orrach)	Chenopodiaceae	red
Pea tendrils	Fabaceae	green
Basil	Lamiaceae	green
Opal basil	Lamiaceae	greenish-purple
Popcorn shoots	Poaceae	yellow
Red sorrel	Polygonaceae	reddish-green
Sorrel	Polygonaceae	green

Table 8. Popular Commercially Sold Microgreens

And once you smell those intense flavors, absorb those bright colors, and bite into the tender textures of microgreens, you will be adding them as a garnish to your main meals and enhancing your salads, soups, omelets, and sandwiches.

Learn a lot more about microgreens, how good they are for you, and what you can do with them.

Check out my guide, "[The Beginner's Nutritional Guide to Incredible Microgreens](#)."



Visit Microgreens World: www.microgreensworld.com

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- Book #3, [Leave A Review](#)

ABOUT THE AUTHOR

Hi, I'm Andrew Neves, and this is Microgreens World. Come with me on a journey as we experiment and taste and learn together about the latest on [microgreens](#) – Nutrition | Science | Trends



Our family dinners start with vegetables, grain, and whatever meat you want.

Every meal must have something “green” on it, and it's not Jell-O, LOL!

In 2019 a friend introduced my wife and me to [microgreens](#).

They were flavorful and tasty on our evening meal.

Then we started hanging out at some of the better restaurants in the city.

Everyone, it seemed, was talking about these [microgreens](#).

Read more here: <https://microgreensworld.com/about/>