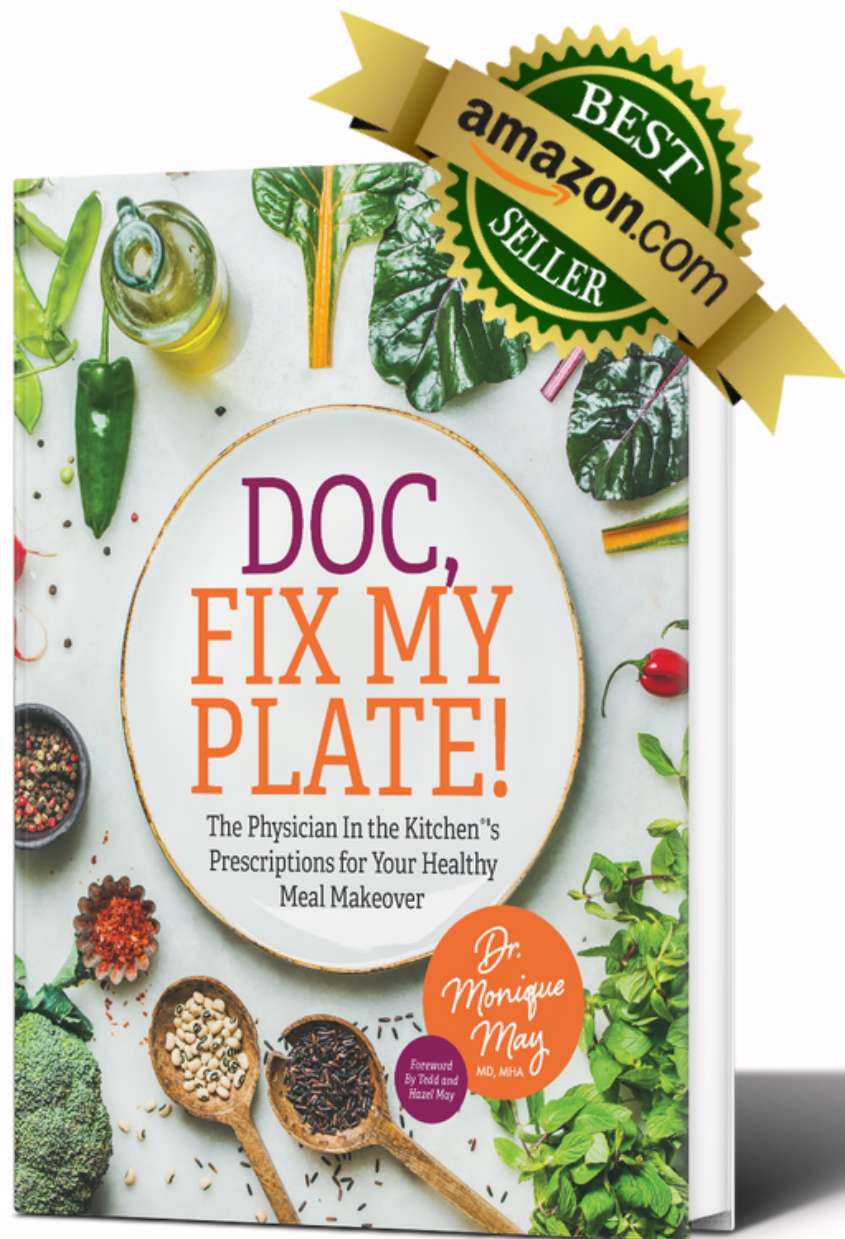


Eat the Rainbow: The Benefits of a Plant-based Diet

*Dr. Monique May
Physician In The Kitchen
March 14, 2023*





Who Am I And Why Listen To Me?

- Board-certified Family Physician >23 Years
- 2x Best-selling Author
- Medical Consultant, Mecklenburg County Health Department, Charlotte, NC

Who Am I And Why Listen To Me?

- 2019 Physician Of The Year
- Print And TV Media Contributor
- Medical Director since 2013





SARATOGA
OLIVE OIL CO.



Who Am I And Why Listen To Me?

- Graduated in the Top 10% of Medical School Class
- Outstanding Resident of the Year
- Brand affiliate: *Denny's, Nutr, Saratoga Olive Oil Company*
- Host, *Vegan-ish*, and online cooking class, *Doc Fix My Plate!* and radio show, *Fix Your Plate with Dr. Monique*

Who Am I And Why Listen To Me?

- Former adjunct professor, Family Medicine, UNC-Chapel Hill, Charlotte, NC
- Founder of Physician In The Kitchen
- Creator, Vegan Worcestershire Sauce
- >7,000 social media and e-mail subscribers
- Vegan culinary school trained
- Paid blogger

 AUGUSTE
Escoffier
SCHOOL OF CULINARY ARTS™

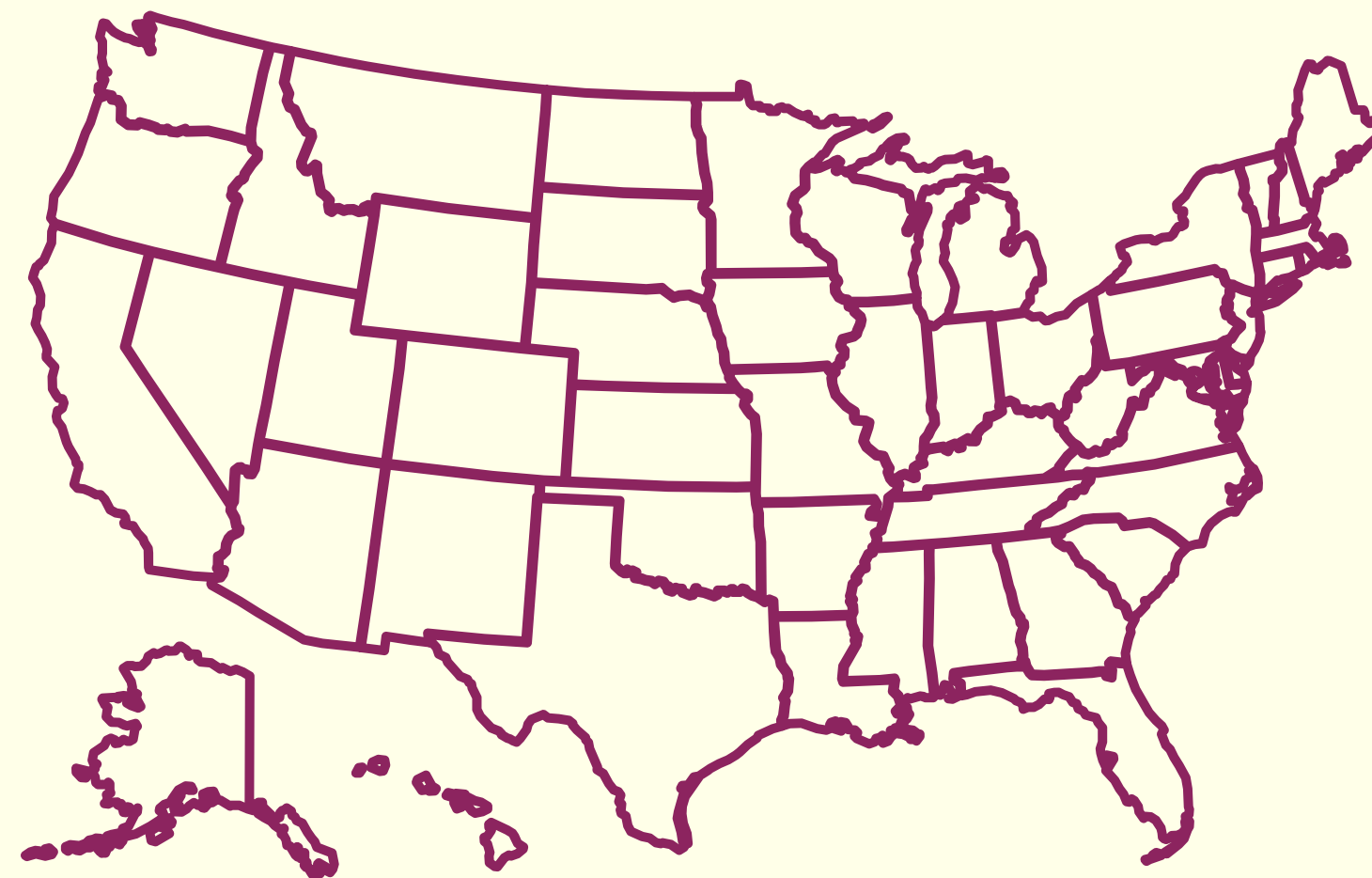
PHYSICIAN
IN THE
KITCHEN



US spending on healthcare

U.S. health care spending **grew 2.7 percent** in 2021, reaching \$4.3 trillion or \$12,914 per person.

As a share of the nation's Gross Domestic Product (GDP), health care spending accounted for **18.3 percent**.

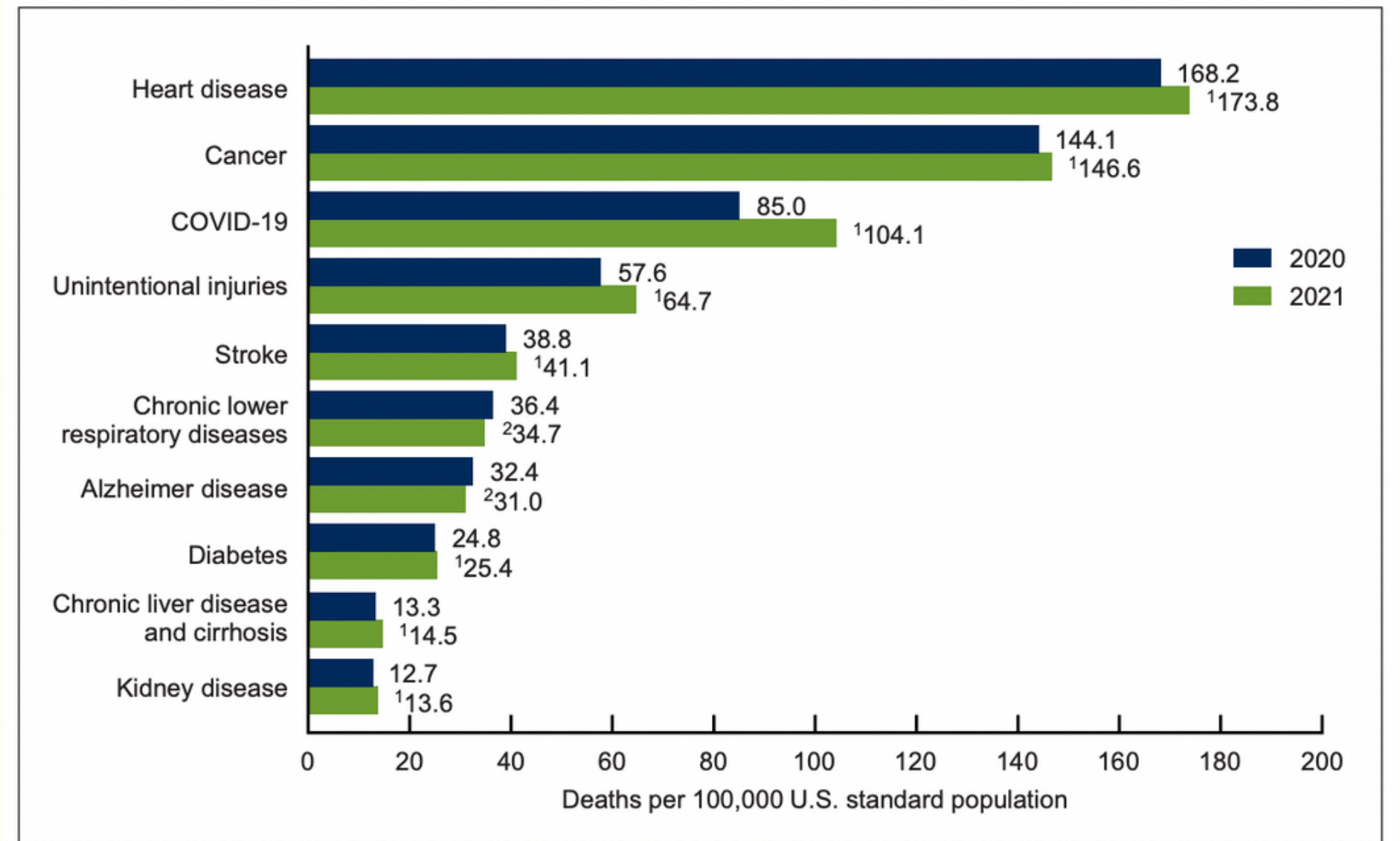


Statista, U.S. national health expenditure as percent of GDP from 1960 to 2021. <https://www.statista.com/statistics/184968/us-health-expenditure-as-percent-of-gdp-since-1960/>

Top 5 causes of death for adults

- **Heart disease:** 695,547
- **Cancer:** 605,213
- **COVID-19:** 416,893
- **Accidents** (unintentional injuries): 224,935
- **Stroke** (cerebrovascular diseases): 162,890

Figure 4. Age-adjusted death rate for the 10 leading causes of death in 2021: United States, 2020 and 2021



Centers for Disease Control and Prevention, Mortality in the United States, 2021, data table for figure 4. <https://www.cdc.gov/nchs/data/databriefs/db456.pdf>

Heart Disease in the United States

According to the American Heart Association:

- Heart disease is the leading cause of death for men and women across racial and ethnic groups.
- One person dies every 34 seconds in the United States from cardiovascular disease.
- About 697,000 people in the United States died from heart disease in 2020—that's 1 in every 5 deaths.
- In 2019, African Americans were 30 percent more likely to die from heart disease than non-Hispanic whites.
- African American adults are much more likely to have high blood pressure, and they are less likely than non-Hispanic whites to have their blood pressure under control.

American Heart Association, Heart and Stroke Statistics. <https://www.heart.org/en/about-us/heart-and-stroke-association-statistics>

Office of Minority Health Resource Center, Heart Disease and African Americans. <https://minorityhealth.hhs.gov/omh/browse.aspx?lvl=4&lvlid=19>

Stroke Statistics

- On average, someone in the US dies of stroke every 3 minutes and 17 seconds.
- 439 US deaths from stroke each day (based on 2020 data).
- Does not include those left with permanent disability



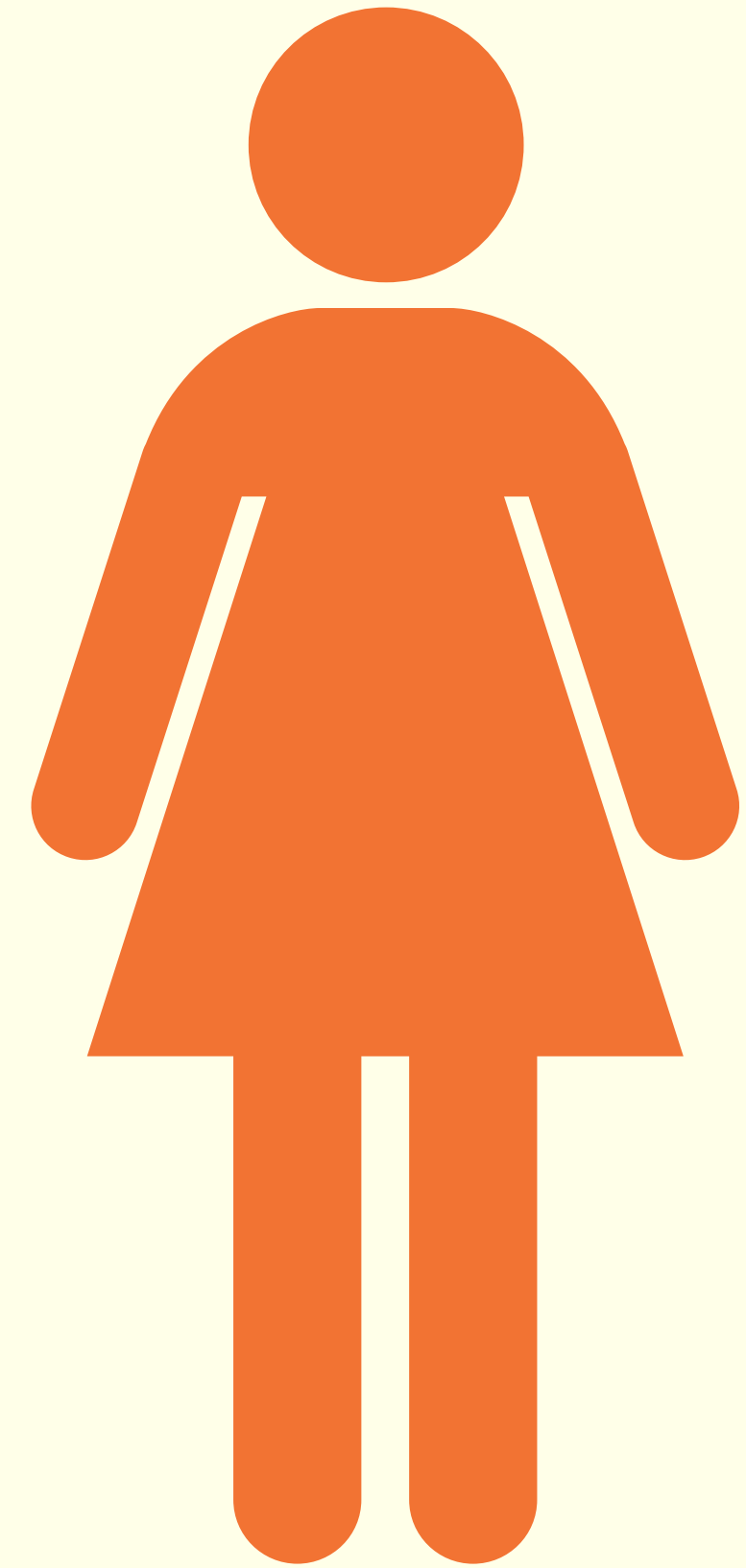
On average, someone in the US dies of a stroke every **3 minutes** and **17 seconds**
439 US deaths from stroke each day (based on 2020 data)

American Heart Association, Heart and Stroke Statistics. <https://www.heart.org/en/about-us/heart-and-stroke-association-statistics>

Causes of cancer deaths for women

Based on American Cancer Society,
Cancer Facts & Figures 2022:

1. **Lung & bronchus:** 61,360
2. **Breast:** 43,250
3. **Colon & rectum:** 24,180

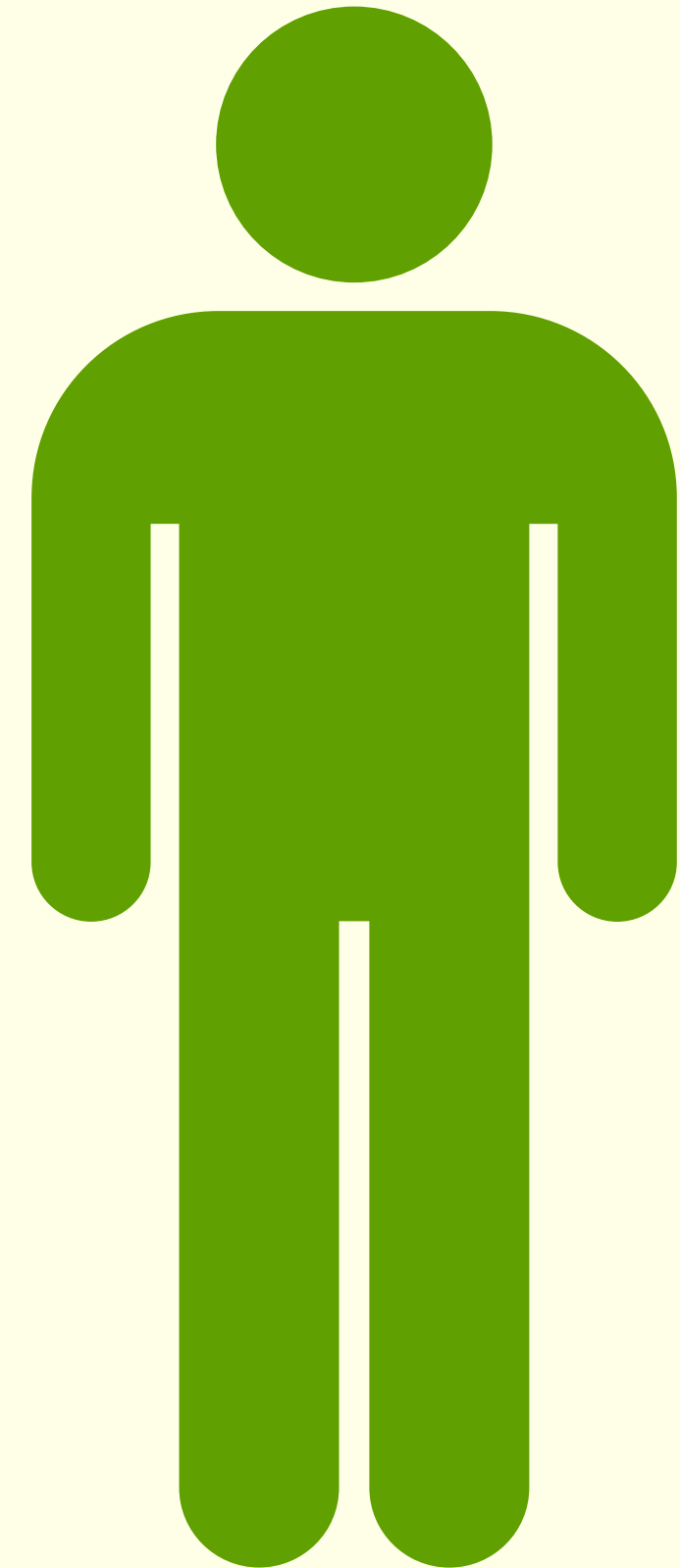


American Cancer Society, Cancer Facts & Figures 2022, page 10. <https://www.cancer.org/content/dam/cancer-org/research/cancer-facts-and-statistics/annual-cancer-facts-and-figures/2022/2022-cancer-facts-and-figures.pdf>

Causes of cancer deaths for men

Based on American Cancer Society,
Cancer Facts & Figures 2022:

1. **Lung & bronchus:** 68,820
2. **Prostate:** 34,500
3. **Colon & rectum:** 28,400



American Cancer Society, Cancer Facts & Figures 2022, page 10. <https://www.cancer.org/content/dam/cancer-org/research/cancer-facts-and-statistics/annual-cancer-facts-and-figures/2022/2022-cancer-facts-and-figures.pdf>

- Cancer is the second most common cause of death in the US, exceeded only by heart disease.
- About 224,080 new cancer cases and 73,680 cancer deaths are projected to occur among African-Americans in 2022.
- African Americans have the highest death rate and shortest survival of any racial/ethnic group in the United States for most cancers.
- For example, African American women are 41% more likely to die from breast cancer than White women, despite more White women being diagnosed with it.

American Cancer Society, Cancer Facts & Figures 2022, page 10. <https://www.cancer.org/content/dam/cancer-org/research/cancer-facts-and-statistics/annual-cancer-facts-and-figures/2022/2022-cancer-facts-and-figures.pdf>

The American Cancer Society, Cancer Facts & Figures for African American/Black People. <https://amp.cancer.org/research/cancer-facts-statistics/cancer-facts-figures-for-african-americans.html>

Obesity

Obesity is a common, serious, and costly disease

- From 2017 – March 2020 approximately 42% of US adults were obese.
- During that time, obesity rates increased 42% and the rate of severe obesity almost doubled.
- Obesity-related conditions include heart disease, stroke, type 2 diabetes and certain types of cancer.
- African American women have the highest rates of obesity or being overweight compared to other groups in the US; about 80% of African American women are overweight or obese.

Centers for Disease Control and Prevention, Adult Obesity Facts. <https://www.cdc.gov/obesity/data/adult.html>

Office of Minority Health Resource Center, Obesity and African Americans. <https://minorityhealth.hhs.gov/omh/browse.aspx?lvl=4&lvlid=25>

Body Mass Index Chart

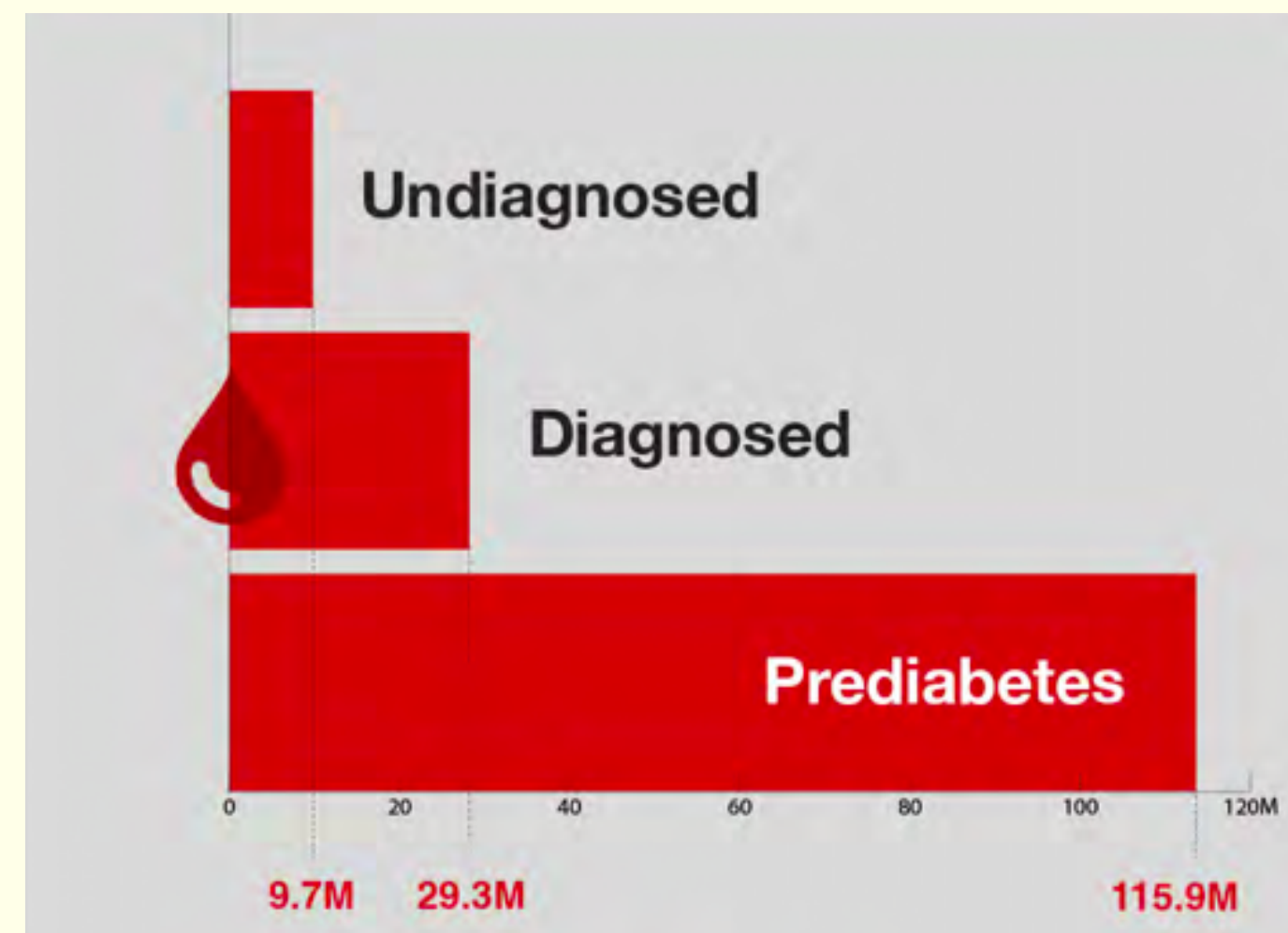
- Underweight (BMI less than 18.5)
- Healthy weight (BMI 18.5 to 24.9)
- Overweight (BMI 25 to 29.9)
- Obese (BMI 30 to 39.9)
- Extremely obese (BMI 40 and above)

International Fitness Association, Body Mass Index Chart. <https://www.ifafitness.com/book/bmi-chart.htm>

Diabetes by the numbers

Based on 2017-2020 data:

- **9.7 million** adults have undiagnosed diabetes
- **29.3 million** adults have diagnosed diabetes
- **115.9 million** adults have prediabetes



American Heart Association, Heart and Stroke Statistics. <https://www.heart.org/en/about-us/heart-and-stroke-association-statistics>

Alzheimer's

- More than **6 million Americans of all ages have Alzheimer's.**
- By 2050, the number of people age 65 and older with Alzheimer's may grow to a projected 12.7 million
- An estimated **6.5 million Americans age 65 and older** are living with Alzheimer's in 2022. Seventy-three percent are age 75 or older.
- Studies examining racial and ethnic disparities in dementia in the US have consistently shown higher rates of dementia for African American adults.

Alzheimer's Association, Alzheimer's Disease Facts and Figures. <https://www.alz.org/alzheimers-dementia/facts-figures>

JAMA Network, Association of Race and Ethnicity With Incidence of Dementia Among Older Adults.

<https://jamanetwork.com/journals/jama/fullarticle/2791223#:~:text=Studies%20examining%20racial%20and%20ethnic,of%20dementia%20for%20Black%20adults.&text=Hispanic%20older%20adults%20are%20less,than%20have%20White%20older%20adults.>

Risk factors for heart disease and stroke

- High blood pressure
- High bad cholesterol (*low-density lipoprotein (LDL)*) levels
- Diabetes
- Smoking/secondhand smoke exposure
- Obesity/Unhealthy diet/Physical inactivity
- African American race

Centers for Disease Control and Prevention, Heart Disease and Stroke. <https://www.cdc.gov/chronicdisease/resources/publications/factsheets/heart-disease-stroke.htm#>

Risk factors for cancer

- Cigarette smoking
- Excess body weight
- Drinking alcohol
- UV radiation
- Physical inactivity
- Poor diet (e.g., processed meats and colon cancer)

American Cancer Society, More than 4 in 10 Cancers and Cancer Deaths Linked to Modifiable Risk Factors. <https://www.cancer.org/latest-news/more-than-4-in-10-cancers-and-cancer-deaths-linked-to-modifiable-risk-factors.html>

Risk factors for obesity

- Lack of physical activity
- Unhealthy eating behaviors
- Lack of quality sleep
- High amounts of stress
- Metabolic syndrome/PCOS
- Genetics
- Medications
- African American race

National Institutes of Health, OVERWEIGHT AND OBESITY Causes and Risk Factor. <https://www.nhlbi.nih.gov/health/overweight-and-obesity/causes>

Risk factors for Alzheimer's

- Age
- Family history/genetics
- Head injury
- Heart disease
- Diabetes
- Stroke
- High cholesterol
- High blood pressure
- African American race

Alzheimer's Association, Causes and Risk Factors for Alzheimer's Disease. <https://www.alz.org/alzheimers-dementia/what-is-alzheimers/causes-and-risk-factors>

What is a plant-based diet?

A diet that consists of only fruits, vegetables, nuts, seeds, oils, whole grains, and legumes.

Vegan/veganism describes people who eat only plant-based foods, and do not use or patronize anything that may have harmed an animal in its production, such as leather clothing, zoos, etc.



Why is this important?

Studies suggest people who eat predominately plants tend to live at least 8-10 years longer.

They also have decreased risk of certain diseases such as type 2 diabetes, certain types of cancer, obesity, high blood pressure, and heart disease.



Red Foods

Main phytonutrients

- Lycopene, from the vitamin A family

Health benefits

- Anti-inflammatory
- Antioxidant
- May benefit heart health
- May reduce sun-related skin damage
- May lower the risk of certain cancers

Healthline, Eating the Rainbow — Is It Useful and Should You Try It?.<https://www.healthline.com/nutrition/eat-the-rainbow#The-colors>

#EatTheRainbow

SEEING RED



Cranberries



Red Onions



Beets



Red Bell Peppers



Red Wine



Red Grapefruit



Tomatoes



Tart Cherries



Raspberries



Pomegranate



Kidney Beans



Strawberries



Red Lentils

Purple Foods

Main phytonutrients

- Anthocyanins

Health benefits

- Anti-inflammatory
- Antioxidants
- May benefit heart health
- May lower the risk of neurological disorders
- May improve brain function
- May lower the risk of type 2 diabetes
- May lower the risk of certain cancers

Healthline, Eating the Rainbow — Is It Useful and Should You Try It?.<https://www.healthline.com/nutrition/eat-the-rainbow#The-colors>

#EatTheRainbow

NUTRITIOUS PURPLE FOODS



Purple Cauliflower



Acai Berries



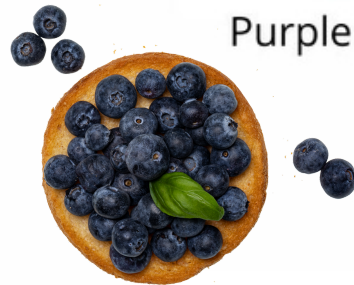
Purple Rice



Purple Sweet Potatoes



Purple Asparagus



Blue Berries



Elderberries



Blackberries



Passion Fruit



Redbor Kale



Purple Cabbage



Eggplant



Purple Carrots



Radicchio



Purple Mangosteen

Dr. Monique
May

PHYSICIAN
IN THE
KITCHEN

Green Foods

Main phytonutrients

- Leafy greens: chlorophyll and carotenoids
- Cruciferous greens (e.g., broccoli, cabbage): indoles, isothiocyanates, glucosinolates

Health benefits

- Anti-inflammatory
- Antioxidants
- Cruciferous veggies may lower the risk of cancer and heart disease

Healthline, Eating the Rainbow — Is It Useful and Should You Try It?.<https://www.healthline.com/nutrition/eat-the-rainbow#The-colors>

#EatTheRainbow

GO GREEN!



Dr. Monique
May

PHYSICIAN
IN THE
KITCHEN

Yellow and Orange Foods

Main phytonutrients

- Carotenoids (e.g., beta carotene, alpha carotene, beta cryptoxanthin), which belong to the vitamin A family

Health benefits

- Anti-inflammatory
- Antioxidants
- May benefit heart health
- Support eye health
- May lower the risk of cancer

Healthline, Eating the Rainbow — Is It Useful and Should You Try It?.<https://www.healthline.com/nutrition/eat-the-rainbow#The-colors>

#EatTheRainbow

HELLO YELLOW!



Corn



Squash



Yellow peppers



Bananas



Jackfruit



Golden beets



Yellow beans



Lemon



Pineapple



Starfruit



Mango



Yellow Cauliflower



Golden Apples

Dr. Monique
May

PHYSICIAN
IN THE
KITCHEN

#EatTheRainbow

ORANGE YOU GLAD....



Apricots



Pumpkin



Cantaloupe



Carrots



Tumeric



Sweet Potatoes



Nectarines



Papaya



Oranges



Peaches



Kumquats



Orange Peppers



Tangerines



Persimmons

Dr. Monique
May






PHYSICIAN
IN THE
KITCHEN

SUMMARY

References

- Statista, U.S. national health expenditure as percent of GDP from 1960 to 2021. <https://www.statista.com/statistics/184968/us-health-expenditure-as-percent-of-gdp-since-1960/>
- Centers for Disease Control and Prevention, Mortality in the United States, 2021, data table for figure 4. <https://www.cdc.gov/nchs/data/databriefs/db456.pdf>
- American Heart Association, Heart and Stroke Statistics. <https://www.heart.org/en/about-us/heart-and-stroke-association-statistics>
- Office of Minority Health Resource Center, Heart Disease and African Americans. <https://minorityhealth.hhs.gov/omh/browse.aspx?lvl=4&lvlid=19>
- American Cancer Society, Cancer Facts & Figures 2022, page 10. <https://www.cancer.org/content/dam/cancer-org/research/cancer-facts-and-statistics/annual-cancer-facts-and-figures/2022/2022-cancer-facts-and-figures.pdf>
- The American Cancer Society, Cancer Facts & Figures for African American/Black People. <https://amp.cancer.org/research/cancer-facts-statistics/cancer-facts-figures-for-african-americans.html>
- Centers for Disease Control and Prevention, Adult Obesity Facts. <https://www.cdc.gov/obesity/data/adult.html>
- Office of Minority Health Resource Center, Obesity and African Americans. <https://minorityhealth.hhs.gov/omh/browse.aspx?lvl=4&lvlid=25>
- Alzheimer's Association, Alzheimer's Disease Facts and Figures. <https://www.alz.org/alzheimers-dementia/facts-figures>
- International Fitness Association, Body Mass Index Chart. <https://www.ifafitness.com/book/bmi-chart.htm>
- Alzheimer's Association, Causes and Risk Factors for Alzheimer's Disease. <https://www.alz.org/alzheimers-dementia/what-is-alzheimers/causes-and-risk-factors>
- JAMA Network, Association of Race and Ethnicity With Incidence of Dementia Among Older Adults. <https://jamanetwork.com/journals/jama/fullarticle/2791223#:~:text=Studies%20examining%20racial%20and%20ethnic,of%20dementia%20for%20Black%20adults.&text=Hispanic%20older%20adults%20are%20less,than%20have%20White%20older%20adults.>
- Centers for Disease Control and Prevention, Heart Disease and Stroke. <https://www.cdc.gov/chronicdisease/resources/publications/factsheets/heart-disease-stroke.htm#>
- American Cancer Society, More than 4 in 10 Cancers and Cancer Deaths Linked to Modifiable Risk Factors. <https://www.cancer.org/latest-news/more-than-4-in-10-cancers-and-cancer-deaths-linked-to-modifiable-risk-factors.html>
- National Institutes of Health, OVERWEIGHT AND OBESITY Causes and Risk Factor. <https://www.nhlbi.nih.gov/health/overweight-and-obesity/causes>
- Healthline, Eating the Rainbow — Is It Useful and Should You Try It?. <https://www.healthline.com/nutrition/eat-the-rainbow#The-colors>

Let's stay connected!

-  drmoniquemay.com
-  physicianinthekitchen.net
-  plantbaseyourpantry.com
-  docfixmyplatebook.com
-  info@drmoniquemay.com

@drmoniquemay



@physicianinthekitchen

