

MCNER Webinar Series for Health Professionals



Incorporating Lifestyle Medicine into Clinical Practice: Overview and Opportunities

Tuesday, September 12, 2023



Moderator:

Lisa Diewald, MS, RDN, LDN

Associate Director

MacDonald Center for Nutrition Education and Research

Villanova University M. Louise Fitzpatrick College of Nursing

Big News!

MacDonald Center for Obesity
Prevention and Education (COPE)



MacDonald Center for Nutrition
Education and Research (MCNER)



Finding Slides for Today's Webinar

- Slides are posted at villanova.edu/cope
- From right menu → Webinars
- Go to 9/12/23 webinar presented by Kelly Freeman and Kaitlyn Pauly

Did you use your phone to access today's webinar?

If you are calling in today rather than using your computer to log on, and need CE credit, please email mcner@villanova.edu and provide your name and we will send you an online link with your CE certificate.

Continuing Education Credit Details

- Villanova University M. Louise Fitzpatrick College of Nursing is accredited as a provider of nursing continuing professional development by the American Nurses Credentialing Center's Commission on Accreditation.
- Villanova University M. Louise Fitzpatrick College of Nursing MacDonald Center for Nutrition Education and Research is a Continuing Professional Education (CPE) Accredited Provider with the Commission on Dietetic Registration (CDR). CDR Credentialed Practitioners will receive 1 Continuing Professional Education Unit (CPEU) for completion of this activity.

Continuing Education Credit Details

- This activity has been approved for 1.0 CH or 1.0 CPEU for nurses and dietitians.
- To receive CE credit, you must attend the entire program.
- All nurses must complete an evaluation following the program.
- Level 2
- Suggested CDR Performance Indicators: 8.1.1, 9.6.7, 10.3.4, 10.3.9



Incorporating Lifestyle Medicine into Clinical Practice: Overview and Opportunities



Kelly Freeman, MSN,
AGPCNP-BC, DipACLM



Kaitlyn Pauly, MS, RDN,
DipACLM

Disclosures



There are no relevant financial relationships with ineligible companies for those involved with the ability to control the content of this activity.

The planners will review participant feedback to evaluate for real or perceived commercial bias in any activity.

CDR members: Any feedback about the quality of the activity can be sent directly to CDR at QualityCPE@eatright.org



Incorporating Lifestyle Medicine into Clinical Practice: Overview and Opportunities

Villanova University
MacDonald Center for Nutrition Education and Research
September 12, 2023

Kaitlyn Pauly, MS, RDN, DipACLM

Deputy Director, Practice Advancement and Administration at the American College of Lifestyle Medicine where her primary role is to support the adoption and advancement of the interdisciplinary field of lifestyle medicine. She draws from her clinical, food service, corporate wellness, telehealth, and higher education experiences to help create tools and resources; as well as advocate for the structural and systemic supports that will enable the practice of lifestyle medicine by a variety of clinician types in a variety of care settings. She has several lifestyle medicine publications including on burnout, diabetes remission, shared medical appointments, reimbursement, and the gut microbiome. She is also a nutrition chapter co-author for both the *Lifestyle Medicine Handbook* as well as *Improving Women's Health Across the Lifespan*. She earned her undergraduate degree in Communications and her Master's in Nutritional Sciences from South Dakota State University and went on to complete her dietetic internship at Iowa State University.



Kelly Freeman, RN, MSN, AGPCNP-BC, DipACLM

Director of Academic Advancement at the American College of Lifestyle Medicine, and was a content expert and nurse planner for the 2nd, 3rd, and 4th editions of the Essentials of Lifestyle Medicine Board Review Course. With a background spanning clinical work, nursing education, population health, and health promotion, she is focused on translating new knowledge into practice in ways that can provide optimal outcomes in a cost-effective manner. She earned her master of science in nursing, adult-gerontology primary care nurse practitioner credential, and a nursing education and public health postgraduate certificate at Indiana University after completing undergraduate work at the University of Nebraska. She is currently pursuing a Ph.D. in health policy. Kelly is the co-founder of the Indiana Lifestyle Medicine Network and an advisory board member for the Global Positive Health Institute.



Disclosures

- Kaitlyn Pauly – Works full-time for the American College of Lifestyle Medicine as the Deputy Director, Practice Advancement and Administration
- Kelly Freeman – Works full-time for the American College of Lifestyle Medicine as the Director of Academic Advancement



Objectives

- Define lifestyle medicine
- Explore how lifestyle medicine can be utilized within clinical practice
- Recognize opportunities, tools and resources that can support the adoption and integration of lifestyle medicine

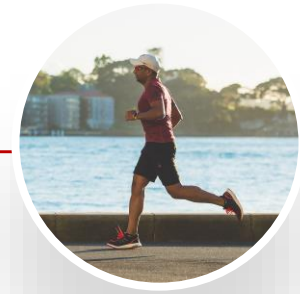




Define lifestyle medicine

DEFINITION

- Lifestyle medicine is a medical specialty that uses therapeutic lifestyle interventions as a primary modality to treat chronic conditions including, but not limited to, cardiovascular diseases, type 2 diabetes, and obesity.
- Lifestyle medicine certified clinicians are trained to apply evidence-based, whole-person, prescriptive lifestyle change to treat and, when used intensively, often reverse such conditions.
- Applying the six pillars of lifestyle medicine—a whole-food, plant-predominant eating pattern, physical activity, restorative sleep, stress management, avoidance of risky substances and positive social connections—also provides effective prevention for these conditions.





Lifestyle Medicine is

- Based on strong evidence and research
- Highly effective – better outcomes and lower cost
- Addresses the root-cause of disease
- Interdisciplinary care model with patients as active partners





Powerful Interventions

Whole Food, Plant-based Nutrition

Restorative Sleep

Physical Activity

Avoidance of Risky Substances

Stress Management

Positive Social Connections



At the Center of Medicine, Science, and Health



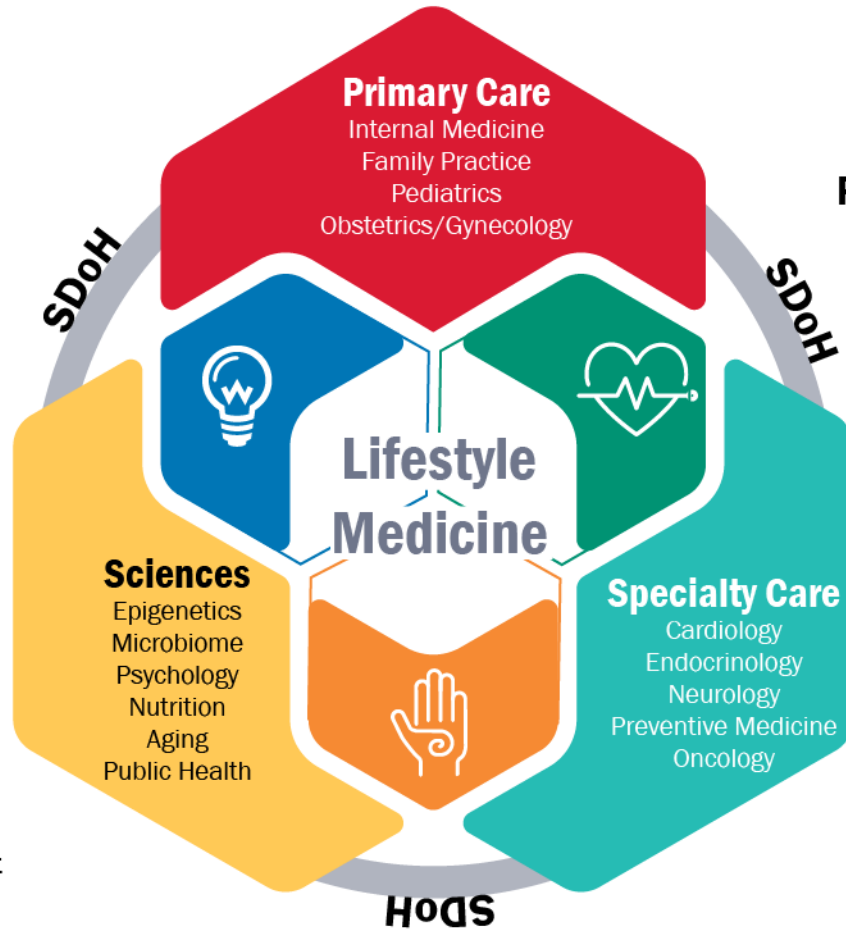
Mental Health

Inner balance and harmony to optimally meet daily demands / tasks / relationships



Social Determinants of Health (SDoH)

Economic Stability
Education Attainment
Health Care Access
Built Environment
Social Context



Physical Health

Proper bodily function affected by lifestyle, genetics, and one's environment



Social Health

Personal ability to interact and adapt effectively with the environment

The six domains of lifestyle medicine draw from research and evidence in many fields of science. Lifestyle medicine is applicable to both primary and specialty care and, taken together with social determinants of health, aims to address not only physical health, but mental and social health as well.



HOW does lifestyle medicine differ from other disciplines?

Medical Discipline	Key Care Approach
Lifestyle Medicine	Six key lifestyle modalities to treat/reverse/prevent disease
Preventive Medicine	Early detection/Screening; Environmental safety/public health
Functional Medicine	Emerging diagnostics; Gut health; Nutraceuticals/Supplements
Naturopathic Medicine	Manipulation; Herbal remedies
Integrative Medicine	Combined use of complementary & conventional medicine approaches to care & treatment

Patient **MUST** engage with lifestyle medicine interventions





THE TIME IS NOW

There is an urgent need for therapeutic lifestyle interventions to be utilized within healthcare

Chronic Disease in U.S.

Problem



6 in 10 Americans have a **Chronic Disease**



4 in 10 Americans have **2 or more Chronic Diseases**



38% of Americans will be diagnosed with **Cancer** during their lifetimes



Chronic diseases - heart disease, cancer, diabetes, stroke, & Alzheimer's are the leading causes of disability and death



Half of all Americans have **Cardiovascular Disease**



1 in 3 Americans have Pre-Diabetes

88 Million

Americans have Pre-Diabetes | 90% do NOT know it

34 Million people live with Type 2 Diabetes

72% of Americans with Overweight or Obesity

36 million men and 29 million women with overweight
32 million men and 36 million women with obesity



Less Than 3 Percent of Americans Live a 'Healthy Lifestyle'

Mayo Clinic researchers looked at data from a representative sample of 4,745 people who participated in the National Health and Nutrition Examination Survey.

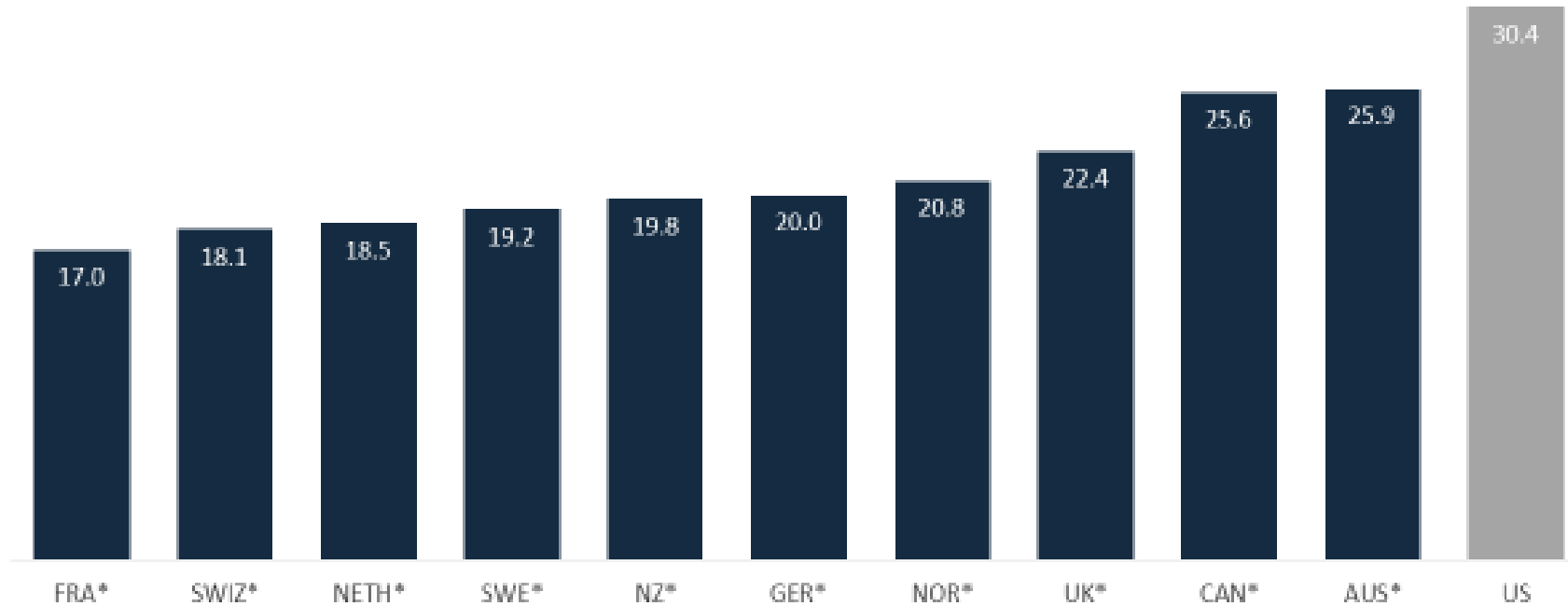
They found that less than 3 percent of Americans live a "Healthy Lifestyle" defined by four qualifications:

1. Moderate or vigorous exercise for at least 150 minutes a week
2. A diet score in the top 40 percent on the Healthy Eating Index
3. A body fat percentage under 20 percent (for men) or 30 percent (for women)
4. Not smoking



Adults in the U.S. are the most likely to have multiple chronic conditions.

Percent of adults age 18 and older who have multiple chronic conditions



Notes: Chronic disease burden defined as adults age 18 years and older who have ever been told by a doctor that they have two or more of the following chronic conditions: asthma or chronic lung disease; cancer; depression, anxiety or other mental health condition; diabetes; heart disease, including heart attack; or hypertension/high blood pressure. Data reflect 11 countries which take part in the Commonwealth Fund's International Health Policy Survey.

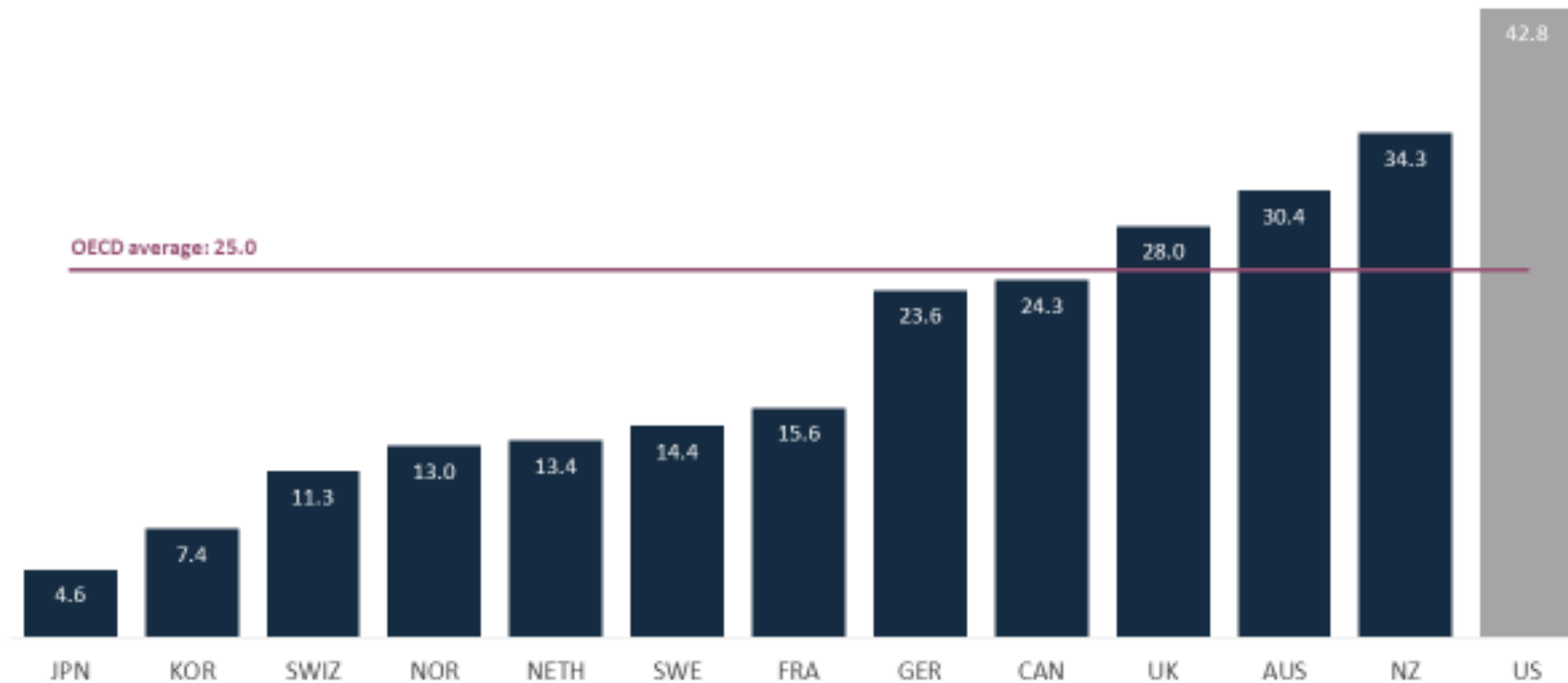
* Statistically significant differences compared to US or comparator bar at $p < .05$ level.

Data: Commonwealth Fund International Health Policy Survey, 2020.



The U.S. obesity rate is nearly double the OECD average.

Number of people per 100 who are obese



Notes: Obese defined as body-mass index of 30 kg/m² or more. Data reflect rates based on measurements of height and weight, except NETH, NOR, SWE, SWIZ, for which data are self-reported. (Self-reported rates tend to be lower than measured rates.) 2021 data for NZ; 2020 data for KOR, NETH, and SWE; 2019 data for CAN, JPN, NOR, UK, and US; 2017 data for AUS, FRA, and SWIZ; 2012 data for GER. OECD average reflects the average of 23 OECD member countries, including ones not shown here, which provide data on obesity rates.

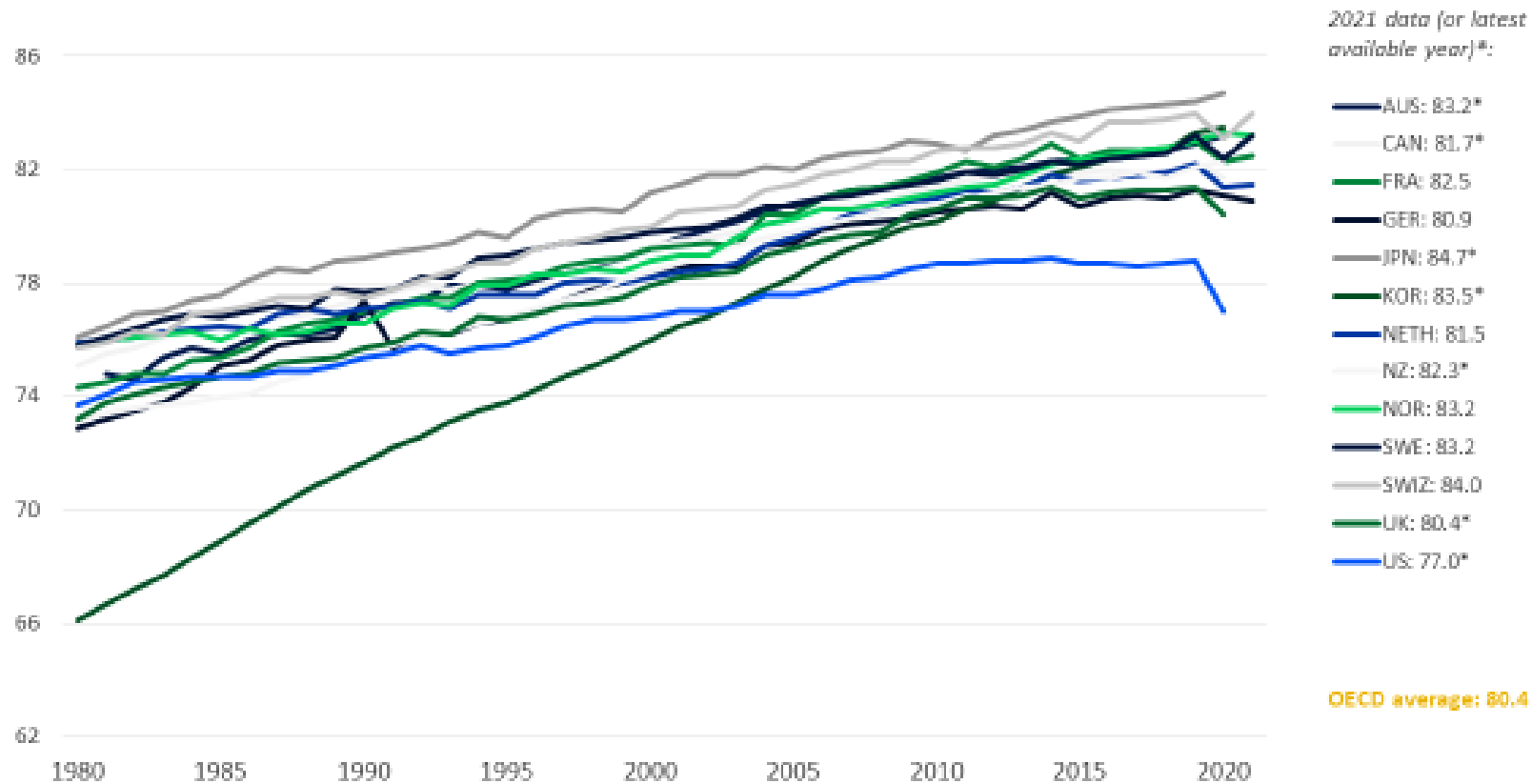
Data: OECD Health Statistics 2022.



Source: Munira Z. Gunja, Evan D. Gumas, and Reginald D. Williams II, *U.S. Health Care from a Global Perspective, 2022: Accelerating Spending, Worsening Outcomes* (Commonwealth Fund, Jan. 2023). <https://doi.org/10.26099/8qjz-yc74>

U.S. life expectancy at birth is three years lower than the OECD average.

Years expected to live, 1980-2021*

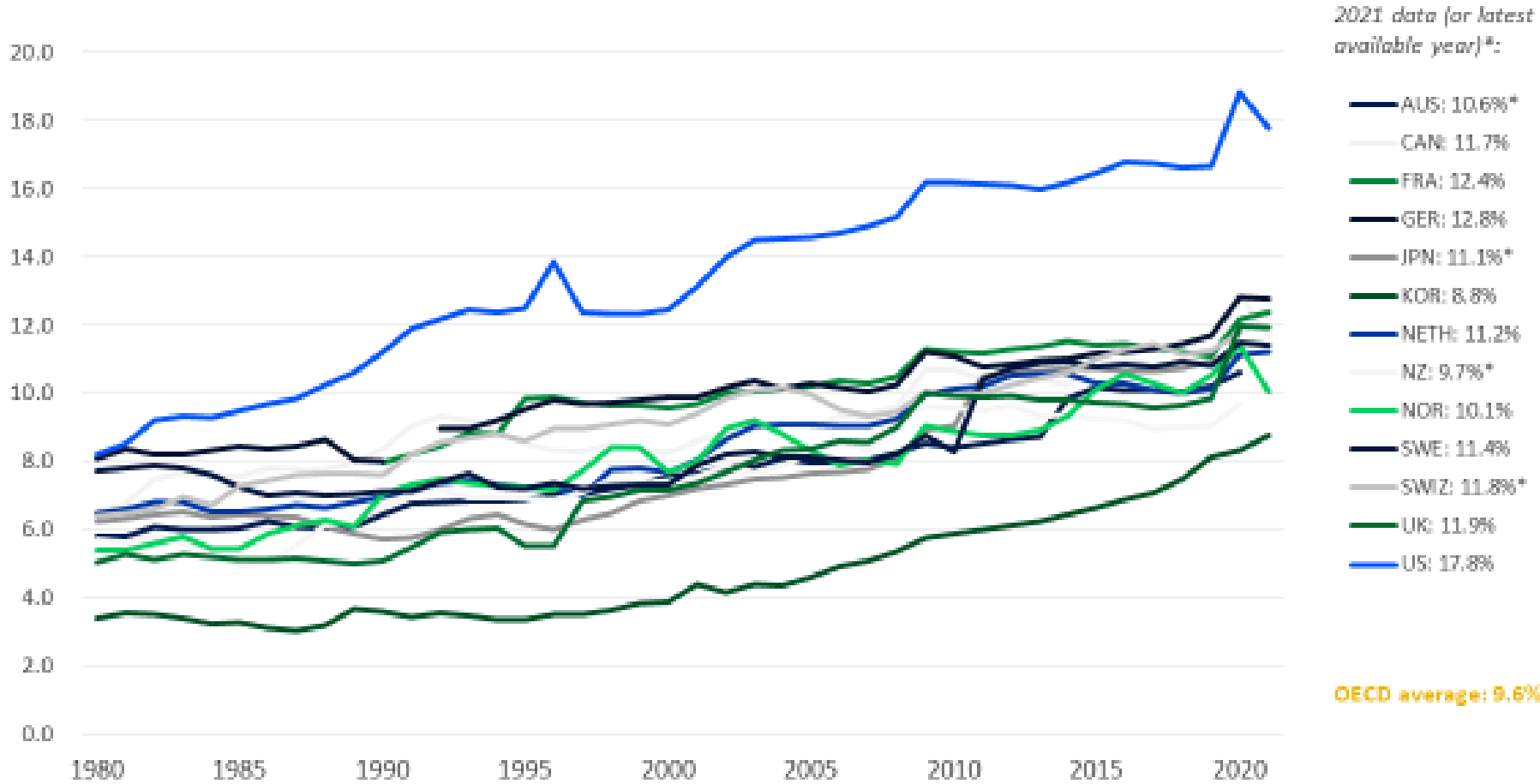


Note: * 2020 data. Total population at birth. OECD average reflects the average of 38 OECD member countries, including ones not shown here. Because of methodological differences, JPN and UK data points are estimates.

Data: OECD Health Statistics 2022.

The U.S. is a world outlier when it comes to health care spending.

Percent of GDP spent on health, 1980-2021*



Notes: * 2020 data. Current expenditures on health for all functions by all providers for all financing schemes. Data points reflect share of gross domestic product. Based on System of Health Accounts methodology, with some differences between country methodologies. GDP = gross domestic product. OECD average reflects the average of 38 OECD member countries, including ones not shown here.

Data: OECD Health Statistics 2022.

National Cost of Chronic and Mental Health Conditions

90%



90% of the nation's \$4.1 trillion in annual health care expenditures are for people with chronic and mental health conditions.

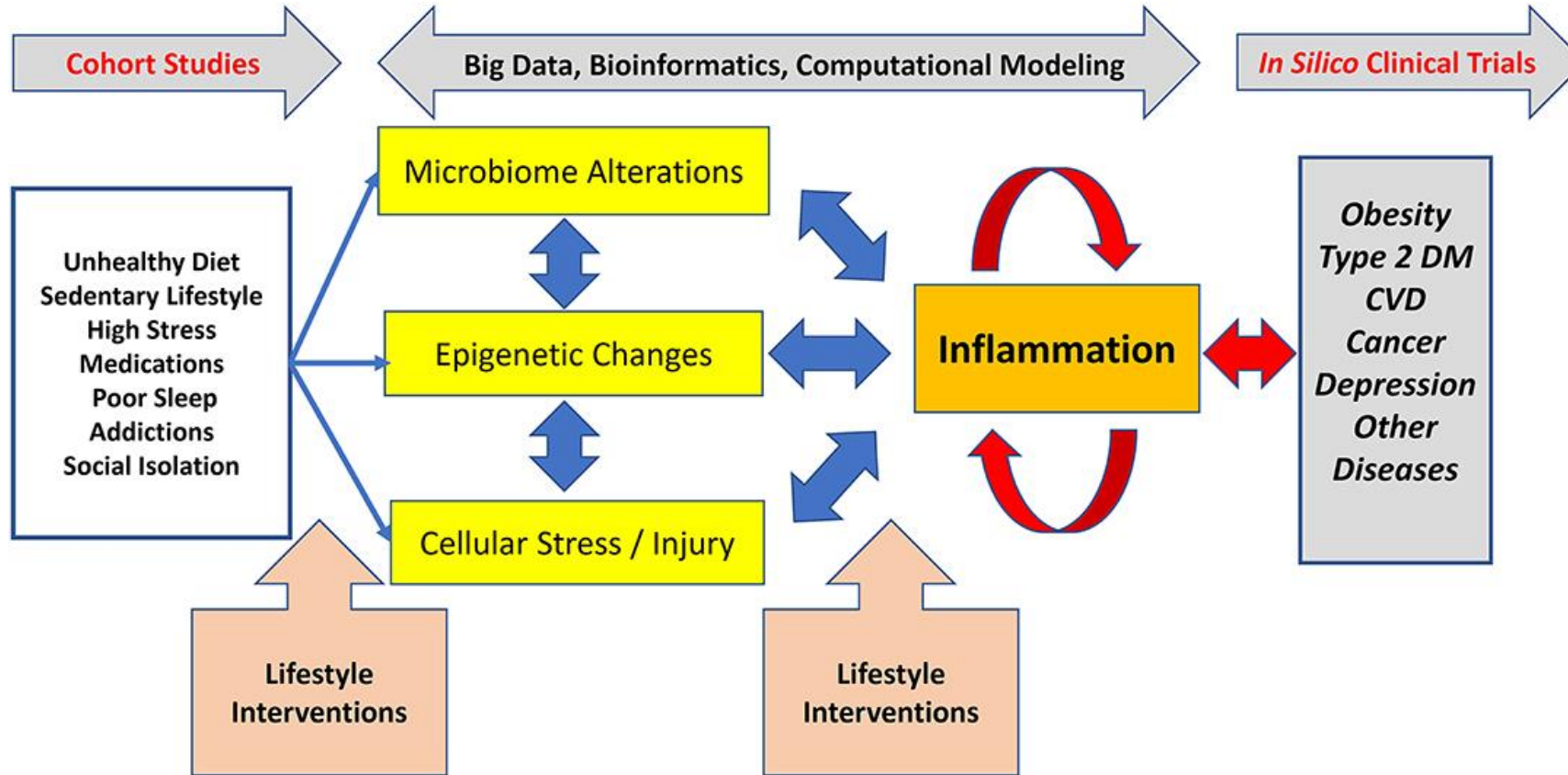




SCIENCE

Evidence-based therapeutic interventions

Lifestyle Associated Pathogenesis

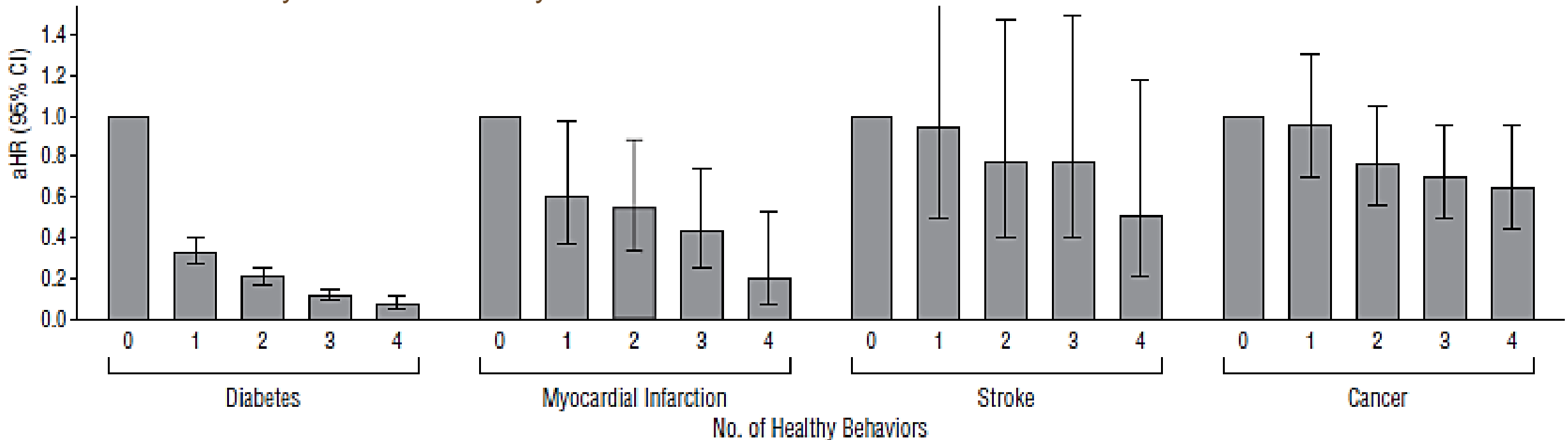


European Prospective Investigation

Participants with all 4 factors at baseline had 78% lower risk (95% CI, 72-83%) of developing a chronic disease than participants without a healthy factor (adjusted for age, sex, education, and occupation)

Analysis of 23,153 Germans aged 35-65y with 7.8y mean follow-up. Health index of 1-point each for: **never smoking**, **BMI<30**, **3.5 h/wk physical activity**, and **healthy diet** (plants, whole grains, low meat)

Adjusted hazard ratios and 95% CIs for incident conditions by number of healthy factors



Key CV Lifestyle Study: The Lifestyle Heart Trial

Small randomized invitational design in patients with moderate to severe CAD comparing an ITLM intervention to usual care who were followed over 5 years.

Intensive Lifestyle Changes for Reversal of Coronary Heart Disease

Dean Ornish, MD; Larry W. Scherwitz, PhD; James H. Billings, PhD, MPH; K. Lance Gould, MD; Terri A. Merritt, MS; Stephen Sparler, MA; William T. Armstrong, MD; Thomas A. Ports, MD; Richard L. Kirkeelde, PhD; Charissa Hogeboom, PhD; Richard J. Brand, PhD

Context.—The Lifestyle Heart Trial demonstrated that intensive lifestyle changes may lead to regression of coronary atherosclerosis after 1 year.

Objectives.—To determine the feasibility of patients to sustain intensive lifestyle changes for a total of 5 years and the effects of these lifestyle changes (without lipid-lowering drugs) on coronary heart disease.

Design.—Randomized controlled trial conducted from 1986 to 1992 using a randomized invitational design.

Patients.—Forty-eight patients with moderate to severe coronary heart disease were randomized to an intensive lifestyle change group or to a usual-care control group, and 35 completed the 5-year follow-up quantitative coronary arteriography.

Setting.—Two tertiary care university medical centers.

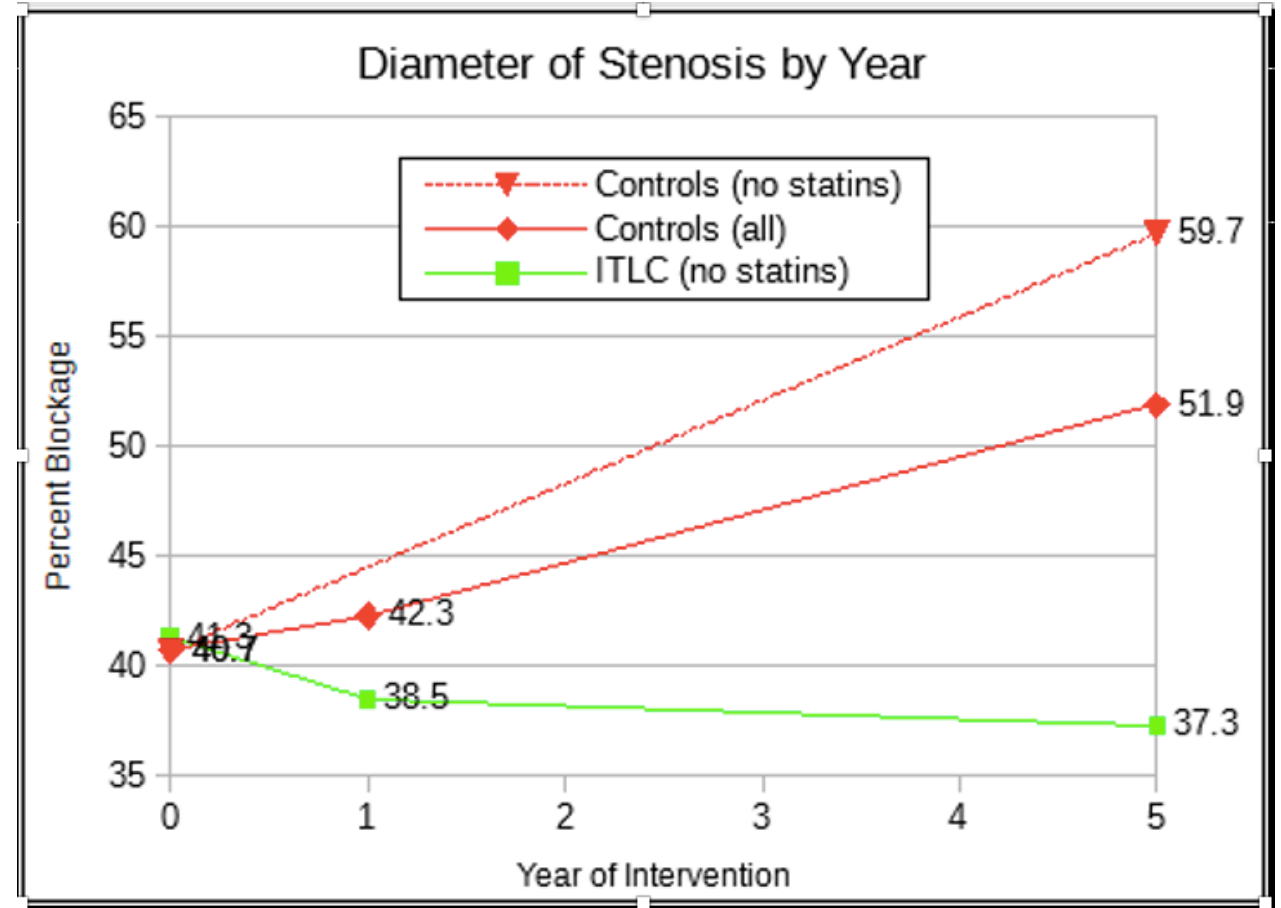
Intervention.—Intensive lifestyle changes (10% fat whole foods vegetarian diet, aerobic exercise, stress management training, smoking cessation, group psychosocial support) for 5 years.

Main Outcome Measures.—Adherence to intensive lifestyle changes, changes in coronary artery percent diameter stenosis, and cardiac events.

Results.—Environmental group patients (20/171%) of 28 patients completed

THE LIFESTYLE Heart Trial was the first randomized clinical trial to investigate whether ambulatory patients could be motivated to make and sustain comprehensive lifestyle changes and, if so, whether the progression of coronary atherosclerosis could be stopped or reversed without using lipid-lowering drugs as measured by computer-assisted quantitative coronary arteriography. This study derived from earlier studies that used noninvasive measures.^{1,2}

After 1 year, we found that experimental group participants were able to make and maintain intensive lifestyle changes and had a 37.2% reduction in low-density lipoprotein (LDL) cholesterol.



Remission as Our Clinical Goal



ACLM Position on T2D Remission: [Type 2 Diabetes Remission and Lifestyle Medicine: A Position Statement From the American College of Lifestyle Medicine](#)

- The position of ACLM, informed by current best research evidence, is that (1) sufficiently intensive lifestyle modifications are capable of producing significant clinical improvements in patients with T2D and (2) that the optimal treatment to bring about remission (defined below) includes a whole food, plant-based (WFPB) dietary pattern coupled with moderate exercise.
- **Remission should always be held as the *primary* clinical goal and that lifestyle medicine interventions that produce changes leading to remission should therefore become the standard of care**



Dietary Interventions to Treat Type 2 Diabetes

- Consensus statements using modified Delphi process based on experts from ACLM, American Association Clinical Endocrinology, Academy Nutrition & Dietetics, American Academy Family Physicians, Endocrine Society, American College Cardiology, and American Heart Association

Remission is an optimal, realistic, and achievable goal for adults with T2D, with remission defined as HbA1c < 6.5% measured at least 3 months after cessation of glucose-lowering pharmacotherapy as the usual diagnostic criterion

Diet as a primary intervention for T2D can achieve remission in many adults with T2D

Diet as a primary intervention for T2D is most effective for remission when emphasizing **whole, plant-based foods with minimal consumption of meat and animal products**

 This expert consensus statement is endorsed by American Association of Clinical Endocrinology, is supported by the Academy of Nutrition and Dietetics, and is co-sponsored by the Endocrine Society 

Dietary Interventions for Remission



Expert Consensus Statement: [Dietary Interventions to Treat Type 2 Diabetes in Adults with a Goal of Remission](#)

- Remission of T2D should be defined as HbA1c <6.5% for at least 3 months with no surgery, devices, or active pharmacologic therapy for the specific purpose of lowering blood glucose;
- Diet as a primary intervention for T2D can achieve remission in many adults with T2D and is related to the intensity of the intervention;
- Diet as a primary intervention for T2D is most effective in achieving remission when emphasizing whole, plant-based foods with minimal consumption of meat and other animal products.

This expert consensus statement is endorsed by American Association of Clinical Endocrinology, is supported by the Academy of Nutrition and Dietetics, and is co-sponsored by the Endocrine Society.

Lifestyle Intervention Compared to Usual Diabetes Support and Education

Association of an Intensive Lifestyle Intervention With Remission of Type 2 Diabetes

Edward W. Gregg, PhD

Haiying Chen, PhD

Lynne E. Wagenknecht, DrPH

Jeanne M. Clark, MD, MPH

Linda M. Delahanty, MS, RD

John Bantle, MD

Henry J. Pownall, PhD

Karen C. Johnson, MD, MPH

Monika M. Safford, MD

Abbas E. Kitabchi, MD, PhD

F. Xavier Pi-Sunyer, MD

Rena R. Wing, PhD

Alain G. Bertoni, MD, MPH

for the Look AHEAD Research Group

DIABETES TRADITIONALLY HAS been considered a progressive, incurable condition wherein the best case scenario after diagnosis is tight metabolic and risk factor management to forestall vascular and neuropathic complications.¹ This notion that type 2 diabetes is irreversible is supported by the strong association with genetics and family history, the high prevalence of microvascular complications, and the loss of beta cell mass and function frequently already present at diagnosis.^{2,3} Despite

Context The frequency of remission of type 2 diabetes achievable with lifestyle intervention is unclear.

Objective To examine the association of a long-term intensive weight-loss intervention with the frequency of remission from type 2 diabetes to prediabetes or normoglycemia.

Design, Setting, and Participants Ancillary observational analysis of a 4-year randomized controlled trial (baseline visit, August 2001–April 2004; last follow-up, April 2008) comparing an intensive lifestyle intervention (ILI) with a diabetes support and education control condition (DSE) among 4503 US adults with body mass index of 25 or higher and type 2 diabetes.

Interventions Participants were randomly assigned to receive the ILI, which included weekly group and individual counseling in the first 6 months followed by 3 sessions per month for the second 6 months and twice-monthly contact and regular refresher group series and campaigns in years 2 to 4 (n=2241) or the DSE, which was an offer of 3 group sessions per year on diet, physical activity, and social support (n=2262).

Main Outcome Measures Partial or complete remission of diabetes, defined as transition from meeting diabetes criteria to a prediabetes or nondiabetic level of glycemia (fasting plasma glucose <126 mg/dL and hemoglobin A_{1c} <6.5% with no antihyperglycemic medication).

Results Intensive lifestyle intervention participants lost significantly more weight than DSE participants at year 1 (net difference, -7.9%; 95% CI, -8.3% to -7.6%) and at year 4 (-3.9%; 95% CI, -4.4% to -3.5%) and had greater fitness increases at year 1 (net difference, 15.4%; 95% CI, 13.7%-17.0%) and at year 4 (6.4%; 95% CI, 4.7%-8.1%) (*P* < .001 for each). The ILI group was significantly more likely to experience any remission (partial or complete), with prevalences of 11.5% (95% CI, 10.1%-12.8%) during the first year and 7.3% (95% CI, 6.2%-8.4%) at year 4, compared with 2.0% for the DSE group at both time points (95% CIs, 1.4%-2.6% at year 1 and 1.5%-2.7% at year 4) (*P* < .001 for each). Among ILI participants, 9.2% (95% CI, 7.9%-10.4%), 6.4% (95% CI, 5.3%-7.4%), and 3.5% (95% CI, 2.7%-4.3%) had continuous, sustained remission for at least 2, at least 3, and 4 years, respectively, compared with less than 2% of DSE participants (1.7% [95% CI, 1.2%-2.3%] for at least 2 years; 1.3% [95% CI, 0.8%-1.7%] for at least 3 years; and 0.5% [95% CI, 0.2%-0.8%] for 4 years).

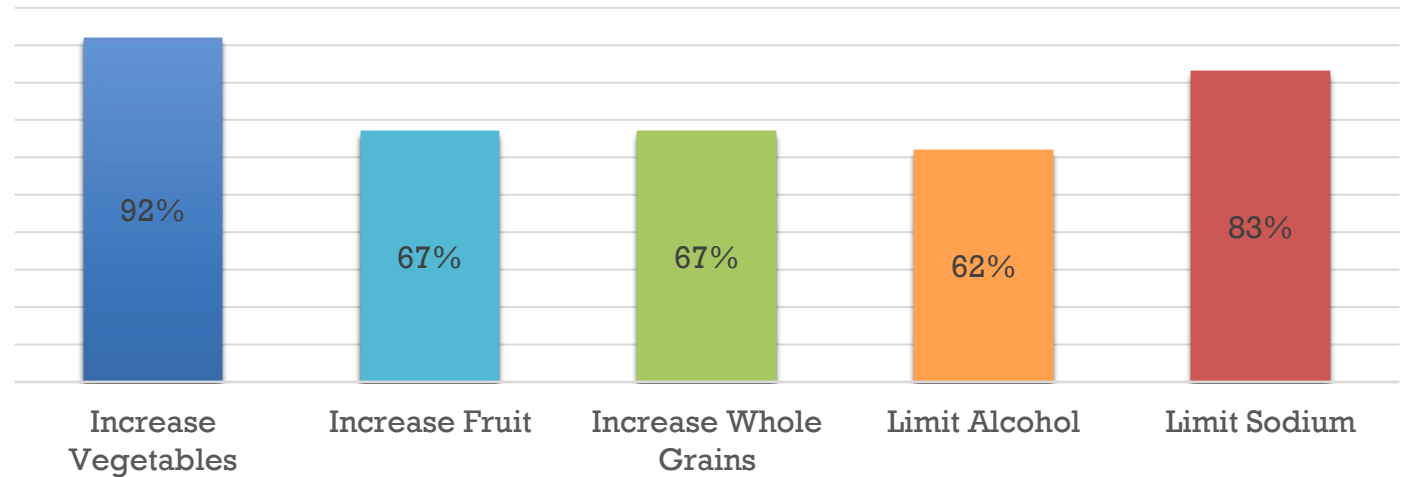
Conclusions In these exploratory analyses of overweight adults, an intensive lifestyle intervention was associated with a greater likelihood of partial remission of type 2 diabetes compared with diabetes support and education. However, the absolute



Dietary Recommendations



- The first-of-its-kind study published in *Advances in Nutrition* titled: [Commonalities among dietary recommendations from 2010-2021 clinical practice guidelines: A meta-epidemiological study from the American College of Lifestyle Medicine](#)



12 society guidelines on T2D

Case Series



Case Series: Remission of Type 2 Diabetes After Treatment With a High-Fiber, Low-Fat, Plant-Predominant Diet Intervention: A Case Series

- This case series of success cases (n=59) demonstrates that prescribing a high-fiber, low-fat, whole food, plant-predominant diet can facilitate lifestyle change and achieve remission of T2D in free-living individuals without severe calorie restriction
- **30** patients discontinued all medications and **22** of these patients met the definition of remission (HbA1c was less than 6.5% for at least 3 months with no medications or other therapies)

59 patients
(mean age 71.5 years)

Deprescribe Medications



Qualitative Case Series of protocols for medication de-escalation in the context of reduced need for glucose-lowering medications due to lifestyle modifications: [Medication Deprescribing Among Patients With Type 2 Diabetes: A Qualitative Case Series of Lifestyle Medicine Practitioner Protocols](#)

- Practitioners in this case series worked with interdisciplinary teams and, overall, preferred to deprescribe medications that cause hypoglycemia first, aiming for patients to achieve normoglycemia.
- Their protocols can serve as examples to other practitioners who may find a need to adjust medications after lifestyle modifications.

Physical Activity-Related Health Benefits Documented by the 2018 Physical Activity Guidelines Committee

Adults, all ages

All-cause mortality	Lower risk
Cardiometabolic conditions	Lower cardiovascular incidence and mortality (including heart disease and stroke) Lower incidence of hypertension Lower incidence of type 2 diabetes
Cancer	Lower incidence of bladder, breast, colon, endometrium, esophagus, kidney, stomach, and lung cancers
Brain health	Reduced risk of dementia Improved cognitive function Improved cognitive function following bouts of aerobic activity Improved quality of life Improved sleep Reduced feelings of anxiety and depression in healthy people and in people with existing clinical syndromes Reduced incidence of depression

How Do You Prescribe Exercise in Primary Prevention?

Natalia Martínez Medina, MD
September 07, 2023

+ Add to Email Alerts

43



82



To avoid cardiovascular disease, the American Heart Association (AHA) recommends performing at least 150 minutes of moderate-intensity aerobic activity every week, 75 minutes of intense aerobic activity every week, or a combination of both, preferably spread out throughout the week. But how knowledgeable are physicians when it comes to prescribing exercise, and how should patients be assessed so that appropriate physical activity can be recommended?

In a presentation titled, "Patient Evaluation and [Exercise Prescription](#) in Primary Prevention," Thelma Sánchez Grillo, MD, a cardiologist at the Clínica Bíblica Hospital in San José, Costa Rica, explained the benefits and risks of exercise and gave recommendations for proper patient assessment before prescribing physical activity.

"Exercise has cardioprotective, emotional, antiarrhythmic, and antithrombotic benefits, and it reduces stress," she explained.

She also noted that the risk regarding cardiopulmonary and musculoskeletal components must be evaluated, because exercise can itself trigger coronary events, and the last thing intended when prescribing exercise is to cause complications. "We must recommend exercise progressively. We can't suggest a high-intensity regimen to a patient if they haven't had any preconditioning where collateral circulation could be developed and lung and cardiac capacity could be improved."

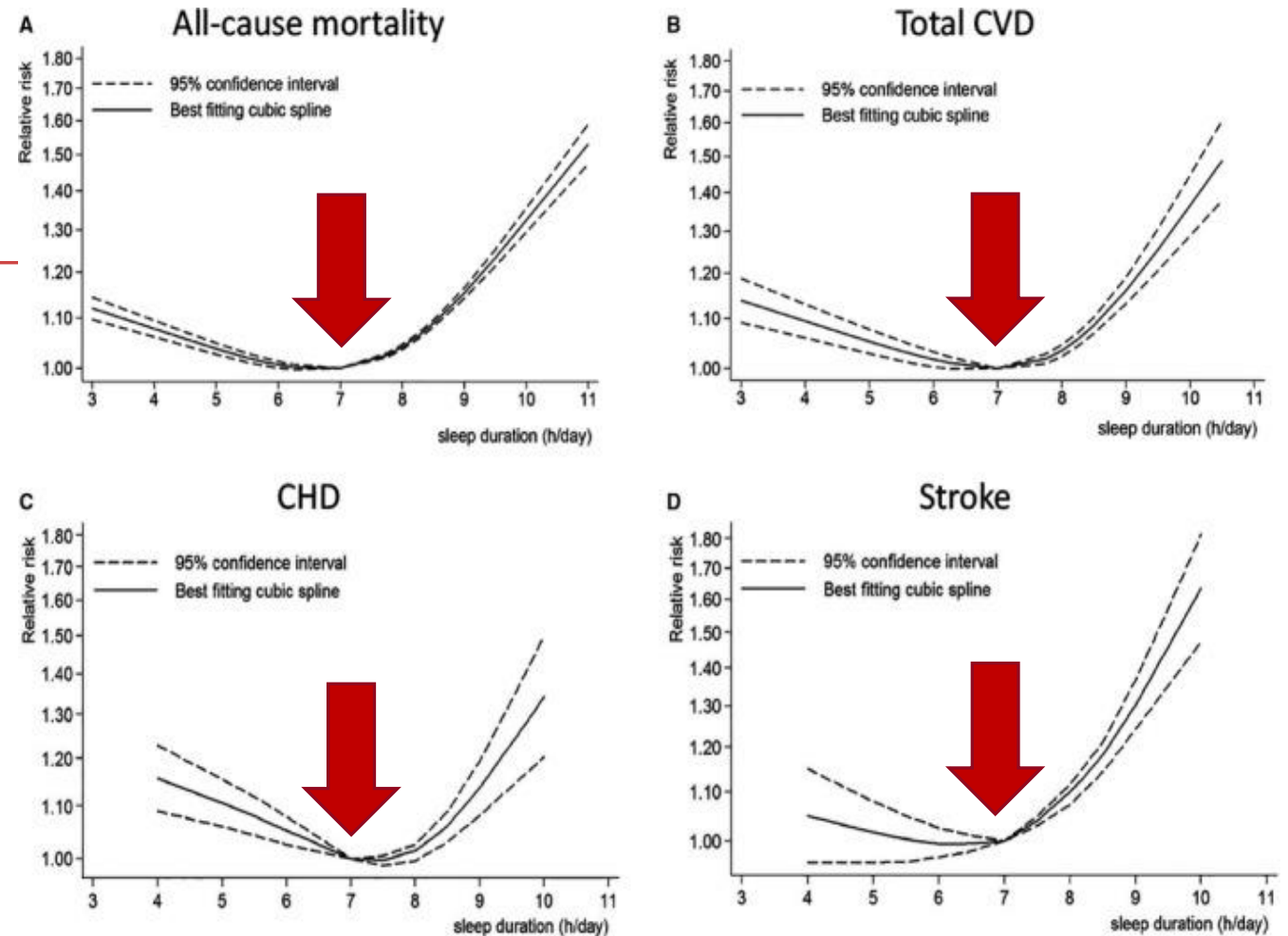
Sleep Duration and Cardiovascular Health

- Cross-sectional evaluation of Nat'l Health and Nutrition Examination Survey (2013-14 and 2015-2016) for 7,784 US adults aged 20-75 years without cardiovascular disease
- Weighted prevalence for sleep duration was 9.0% for very short sleep (under 6 hours), **30.4% for 7 to 9 hours**, and 13.5% for very long duration (>9 hours)
- Only 21.3% had ideal cardiovascular health
- **Odds of ideal cardiovascular health** (adjusted model):
 - Under 6 hours of sleep: 0.65 (95% CI, 0.47 to 0.90)
 - **6 to 9 hours of sleep:** 1.00 (reference condition)
 - 9 hours or longer of sleep: 0.72 (95% CI, 0.55 to 0.94)



Sleep Duration and Mortality

- Systematic review of 67 prospective cohort studies: 43 mortality, 26 CVD, 22 CHD, and 22 stroke
- Sleep duration that was either too short or too long was associated with higher risk of all-cause mortality and cardiovascular events
- Lowest risk at 7 hours/day
- U-shaped association has clinical relevance for sleep duration recommendations



Nonlinear dose-response analyses of sleep duration vs. risk of mortality, cardiovascular disease (CVD), coronary heart disease (CHD), and stroke



Lifestyle Change as First Line of Defense

Clinical guidelines state that diet and physical activity changes are a critical first line treatment for many chronic conditions (e.g., diabetes, obesity, hypertension), often before any medication is prescribed.

This is reinforced by leading national and international organizations.

Diabetes Care

Current ▾ Browse ▾ Info & About ▾ Podcasts ▾ S

Volume 42, Issue Supplement_1
1 January 2019

POSITION STATEMENTS | DECEMBER 07 2018

5. Lifestyle Management: *Standards of Medical Care in Diabetes—2019* ✓

American Diabetes Association

Check for updates

Diabetes Care 2019;42(Supplement_1):S46–S60
<https://doi.org/10.2337/dc19-S005>
PubMed:30559231

Split-Screen Views PDF Share Cite Get Permissions

Chol GUIDELINES MADE SIMPLE
2018 Guideline on the Management of Blood Cholesterol [Back to Table of Contents](#)

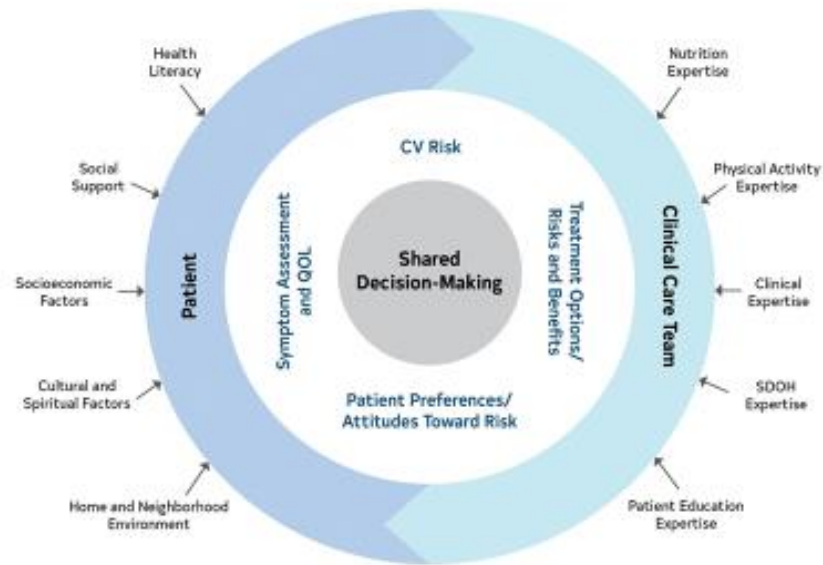
Top 10 Take-Home Messages to Reduce Risk of Atherosclerotic Cardiovascular Disease (ASCVD) through Cholesterol Management (1 of 3)

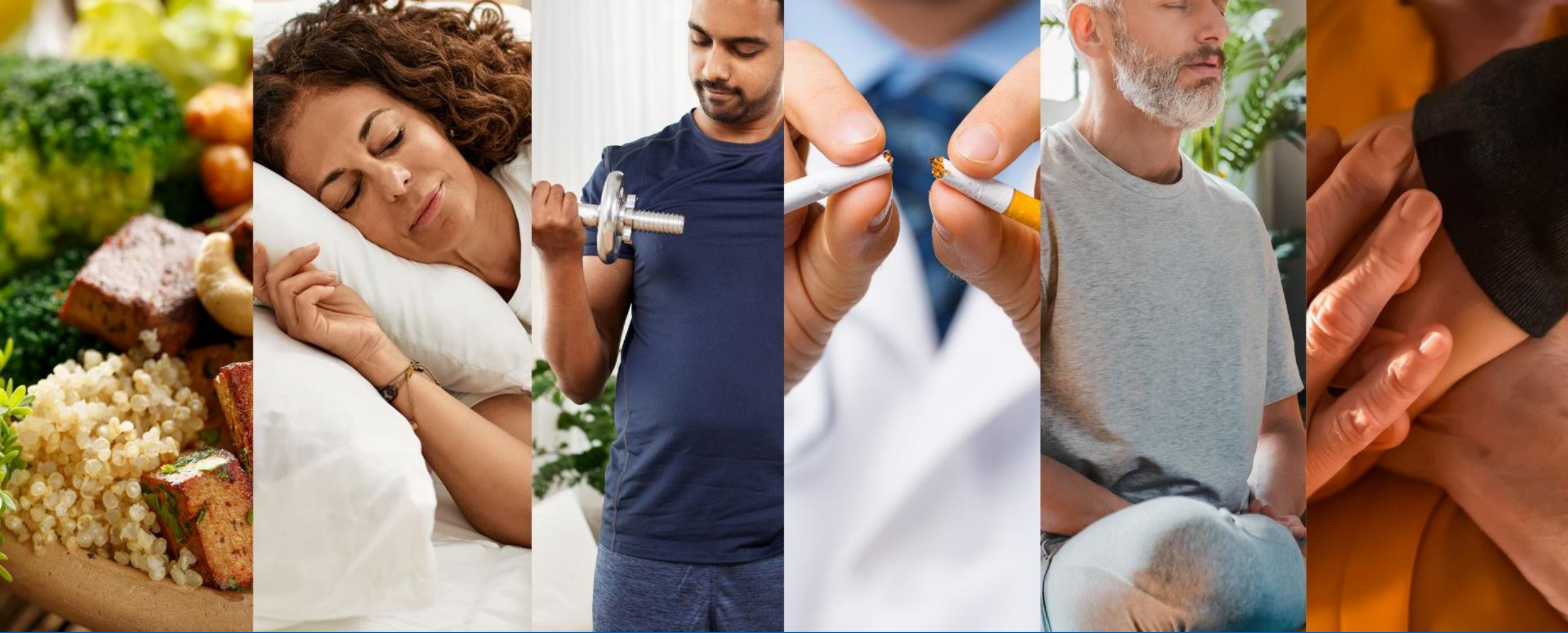
1 *In all individuals, emphasize heart-healthy lifestyle across the life-course.*

A healthy lifestyle reduces atherosclerotic cardiovascular disease (ASCVD) risk at all ages. In younger individuals, healthy lifestyle can reduce development of risk factors and is the foundation of ASCVD risk reduction. In young adults 20 to 39 years of age, an assessment of lifetime risk facilitates the clinician–patient risk discussion (see #6) and emphasizes intensive lifestyle efforts. In all age groups, lifestyle therapy is the primary intervention for metabolic syndrome.

2023 AHA/ACC/ACCP/ASPC/NLA/PCNA Guideline for the Management of Patients With Chronic Coronary Disease: A Report of the American Heart Association/American College of Cardiology Joint Committee on Clinical Practice Guidelines

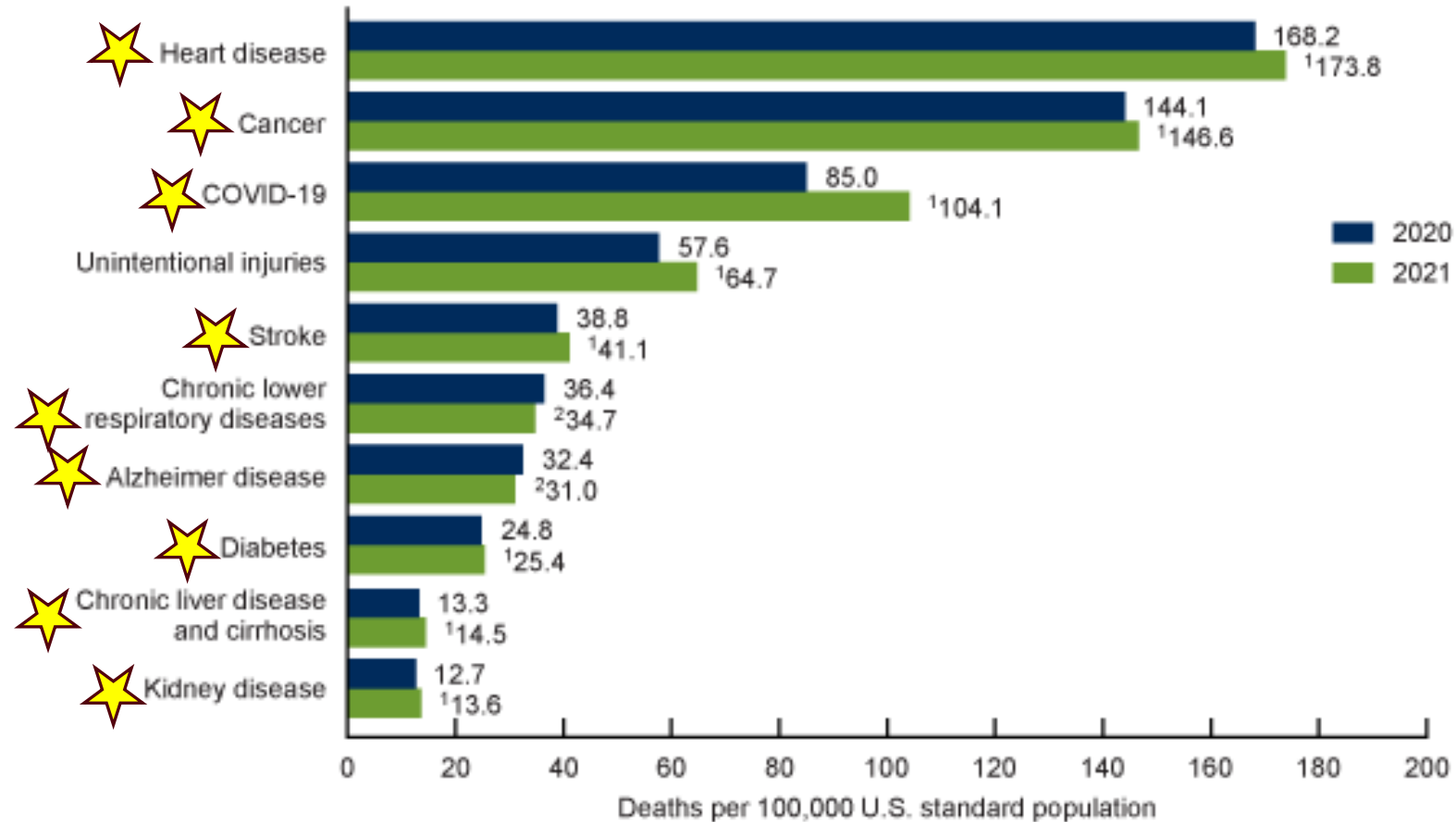
Originally published 20 Jul 2023 <https://doi.org/10.1161/CIR.0000000000001168> Circulation. 2023;148:e9–e119





Explore how lifestyle medicine can be utilized within clinical practice

Top causes of morbidity in the United States (2022)



Lifestyle medicine fits into all types of clinical practices

- Lifestyle-related medical conditions are predominantly seen in primary care (80%)
 - **Obesity**
 - **Metabolic syndrome**
 - **Hypertension**
 - **Cardiovascular disease**
 - **Dyslipidemia**
 - **Arthritis**
 - **Diabetes**
 - **Osteoporosis**

- **Plus – mental health conditions (stress, depression, anxiety)**



Lifestyle medicine fits into all types of clinical practices



Getting to the REAL Cause of Disease

Disease



Symptoms



Lifestyle Factors

Diet, Sleep, Exercise.



Chronic Disease

Type 2 Diabetes,
Cardiovascular Disease
Hypertension.



Six Powerful Interventions



Whole Food, Plant-based Nutrition

Restorative Sleep

Physical Activity

Avoidance of Risky Substances

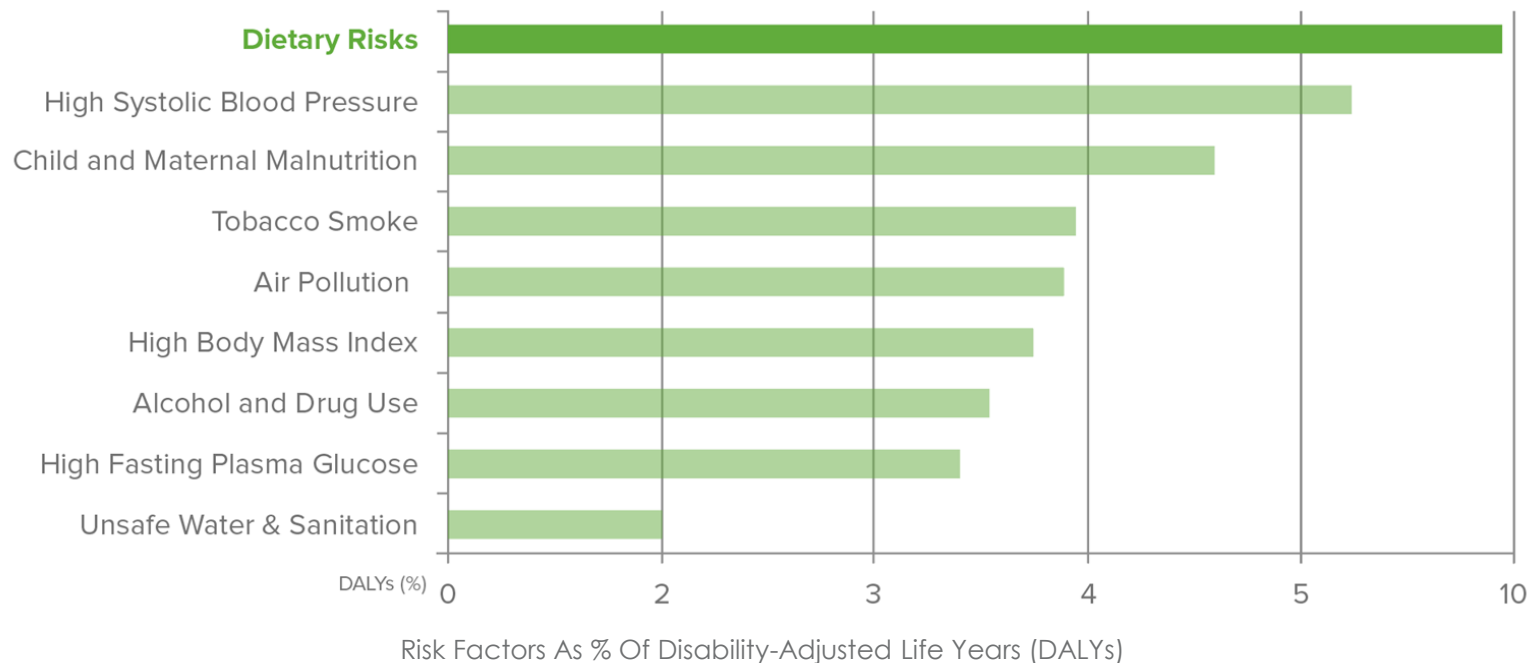
Stress Management

Positive Social Connections

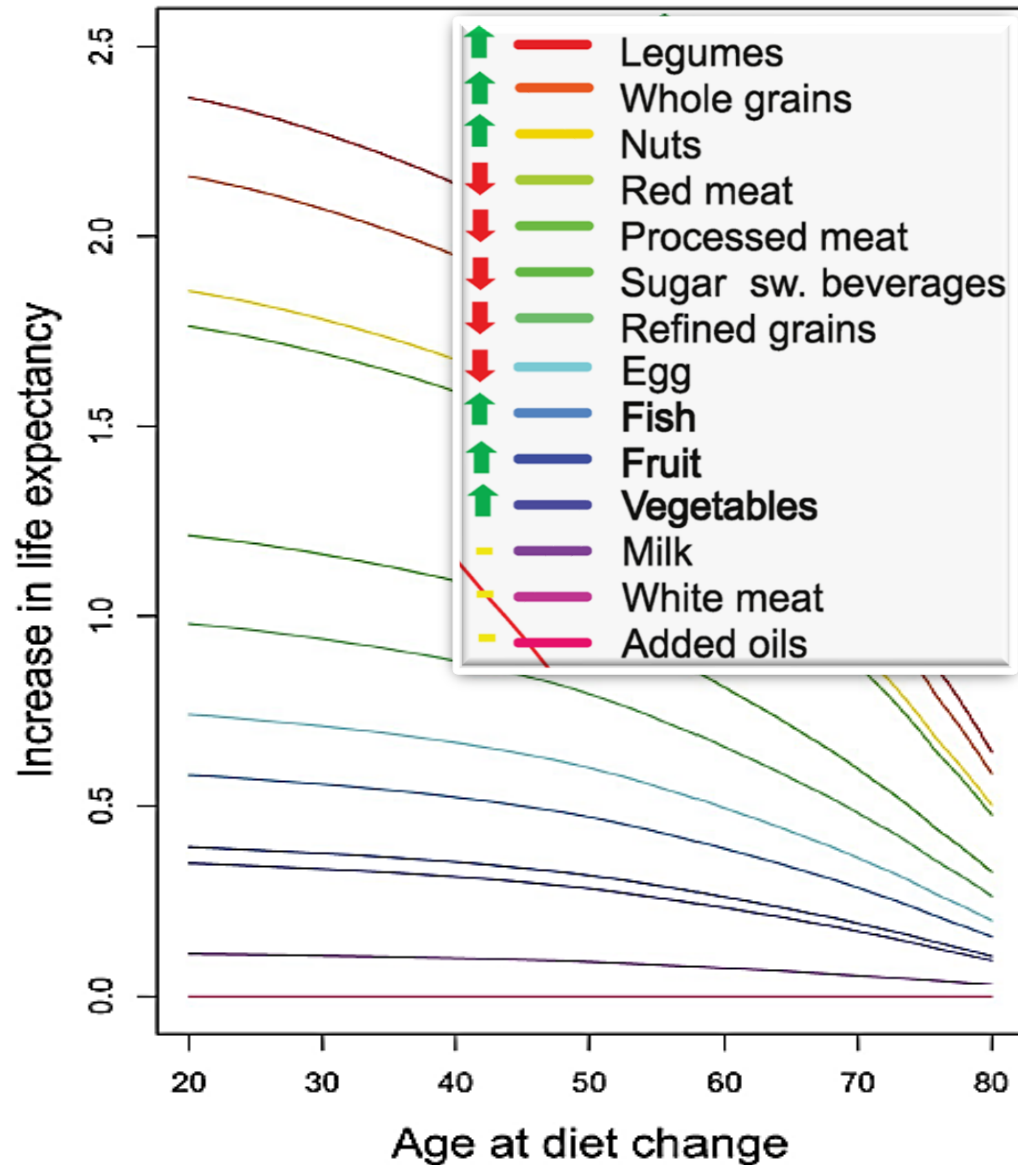


A poor diet is the leading cause of chronic disease and disability in the United States

- *“The most important dietary risks in the United States are diets low in fruits, low in nuts and seeds, high in sodium, high in processed meats, low in vegetables, and high in trans fats”¹*
 - These risks are the leading cause of chronic disease, not other common culprits



Optimal diet



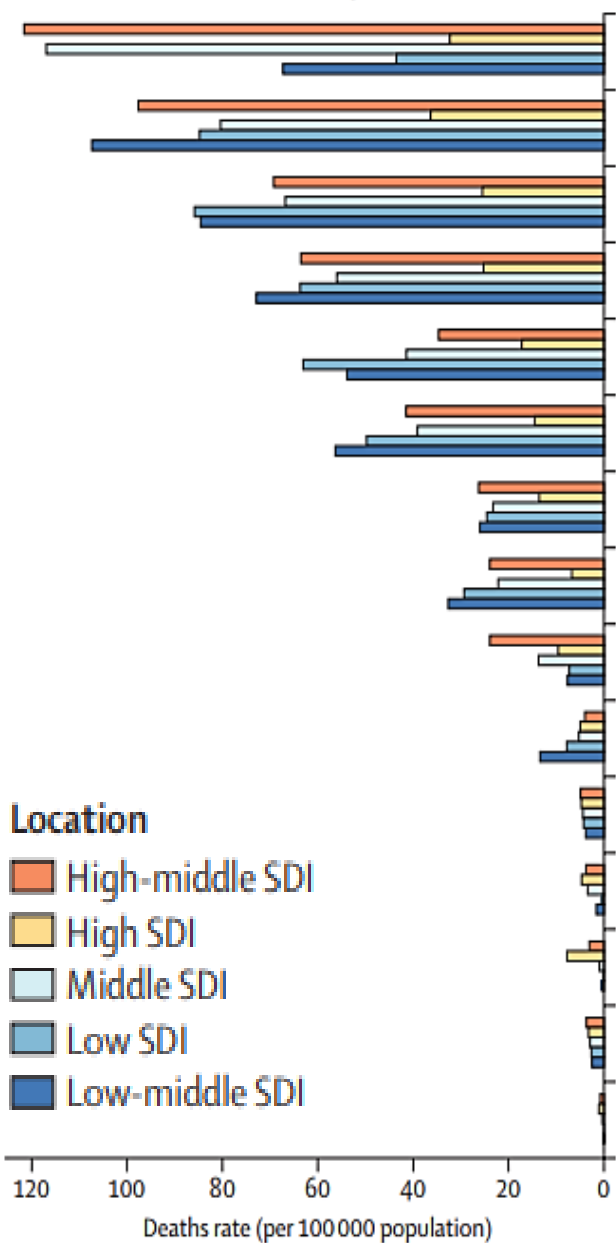
Food Choice & Life Expectancy

Life table analysis of data and meta-analyses from Global Burden of Disease Study (2019; 195 countries)

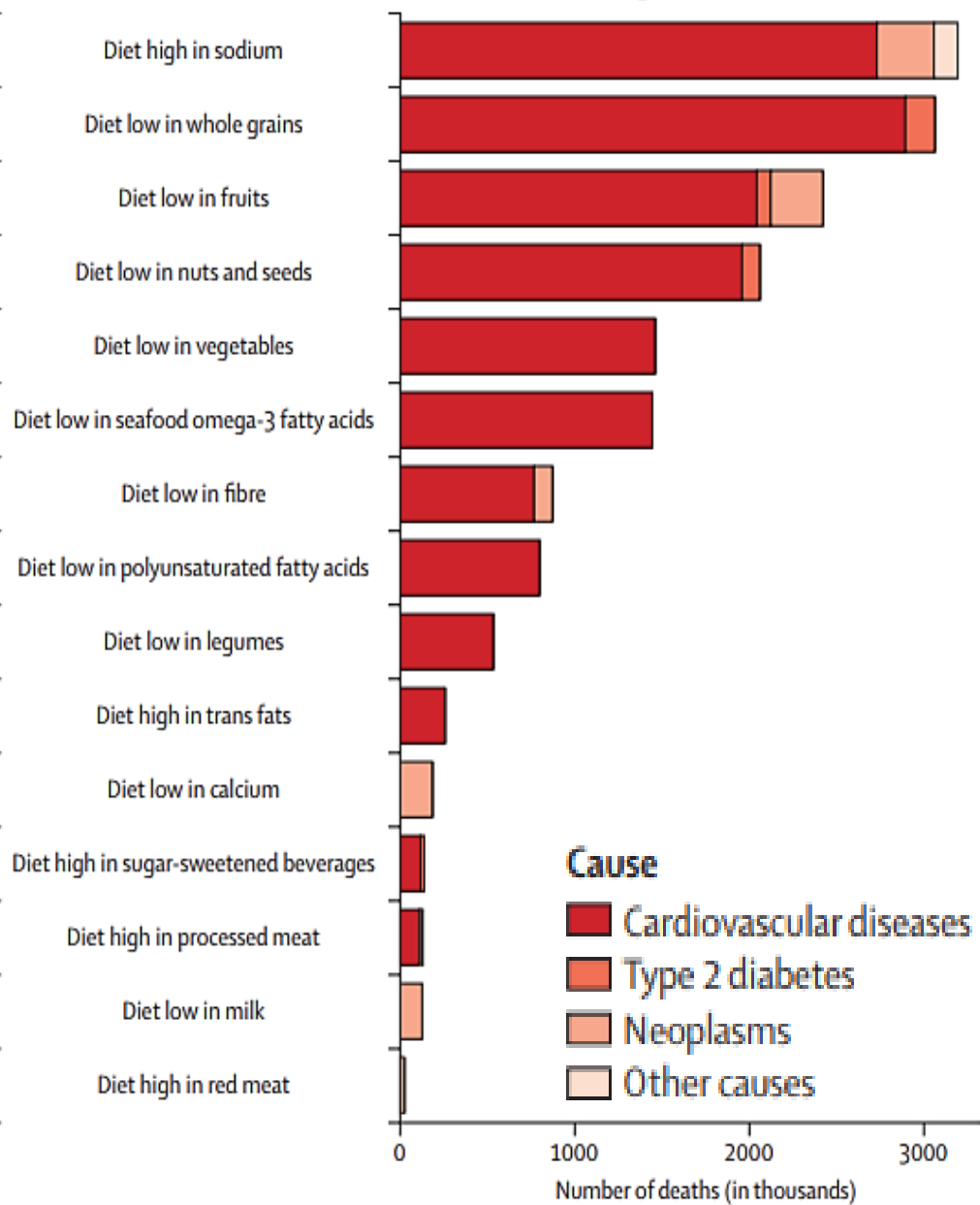
- Compared 3 diets: **typical western (TW)** and **optimized diet (OD)**; OD had substantially higher intake of fruits, vegetables, legumes, whole grains, and fish; some nuts; reduced red and processed meats, sugar-sweetened beverages, and refined grains
- **At age 20y**, change from TW to OD increases life expectancy by **10.7y for women** and **13.0y for men**
- **At age 60y**, change from TW to OD increases life expectancy by **8.0y for women** and **8.8y for men**
- **At age 80y**, change from TW to OD increases life expectancy by **3.4y for women** and **3.4y for men**
- Biggest gains from **more legumes, whole grains, and nuts**; **less red meat and processed meat**



Mortality rate attributable to diet



Number of deaths at the global level attributable to diet



What about one's Diet?

Global Burden of Disease Study on population intake of 15 foods and nutrients for adults $\geq 25y$ across 195 countries from 1990-2017

Dietary factors accounted for 11 million deaths in 2017 from non-communicable diseases (95% uncertainty, 10-12) and **25 million disability-adjusted life years (DALY's)**

Dietary impact more than smoking: 22% of deaths and 15% of DALY's

- High sodium: 3 million deaths**
- Low whole grains: 3 million**
- Low fruits: 2 million**



Lifestyle Medicine in Practice

Therapeutic Dosage and Intensive Behavior Change



Common lifestyle advice from clinicians:

- Eat more fruits and vegetables
- Exercise more



Example of a therapeutic dose of lifestyle medicine that could significantly improve or normalize diabetic biometrics in certain patients with type 2 diabetes:

- **Self-care goal:** Work toward remission of diabetes with a whole-food, plant-predominant eating pattern.
- **Breakfast:** No earlier than 8 a.m. ½ C. cooked steel cut oats, ½ C. blueberries, soy milk M, W, F, and Sat, Tofu scramble, whole food fruit side on T, TH, Sun.
- **Lunch:** Dark green leafy salad with ½ C. cooked quinoa or cooked beans and 2 C. multicolored raw vegetables, light homemade dressing M-F. Vegetable and tofu or bean wrap or burrito Sat and Sun Add 1 C. vegetable soup as desired to satisfy hunger.
- 15-minute walk a half hour after lunch.
- **Snack:** Apple slices with 1-2 TBSP hummus or nut butter, if desired.
- **Dinner:** No later than 6 p.m. Simple dark green leafy salad. Variety of warm, savory dishes as provided on recipe cards. Keep this meal lighter than lunch.
- 15-minute walk a half hour after dinner.



Recognize opportunities, tools and resources that can support the adoption and integration of lifestyle medicine into practice

Tool and Resource Types

- **Professional Development**
 - Membership and networking
 - Continuing education courses
 - Continuing education events
 - Certification
 - Academic Integration
- **Clinical Practice Tools**
 - Provider toolkits
 - LM Assessment tools
 - Journal articles/published research
 - Guidance documents
 - ECS expert consensus statements
 - CPG clinical practice guidelines
 - Position Statements/Papers
 - LM programs/Models
 - Patient education tools
 - Complimentary webinars

Professional Development



CME/CE



Membership



Events



Certification



Academia



Complimentary Culinary Medicine Curriculum and Lifestyle Medicine 101 Curriculum

Complimentary Curricular Resources

Lifestyle Medicine 101

Culinary Medicine Curriculum

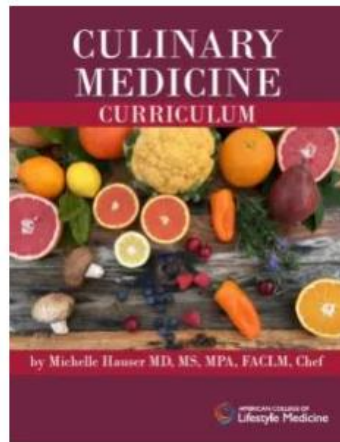
UME Question Bank

LMEd Medical School Curriculum

Academic Pathway to Certification

Handouts & Resources

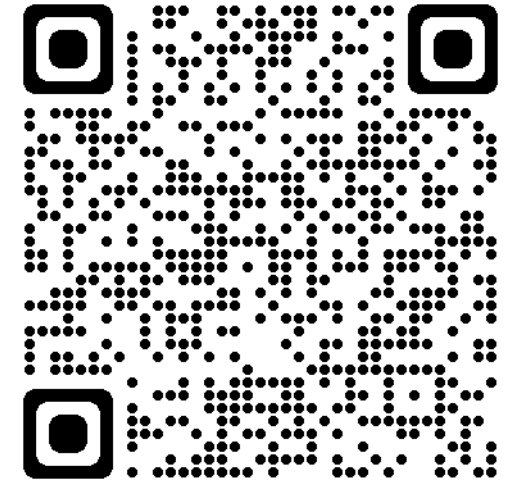
Residency Curriculum



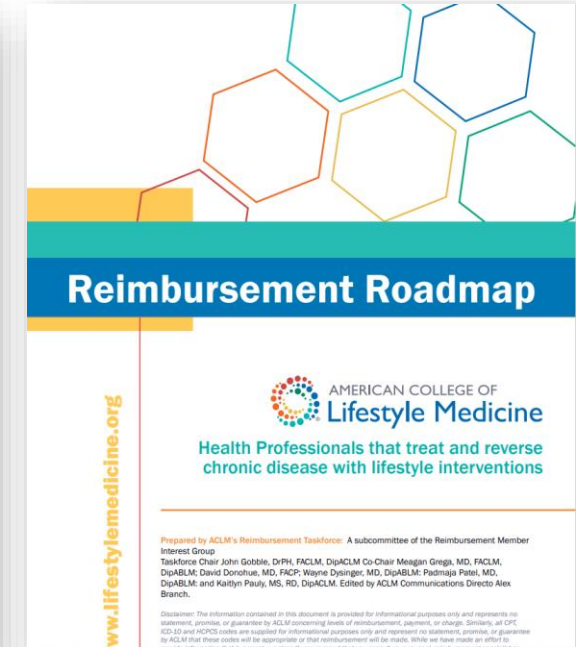
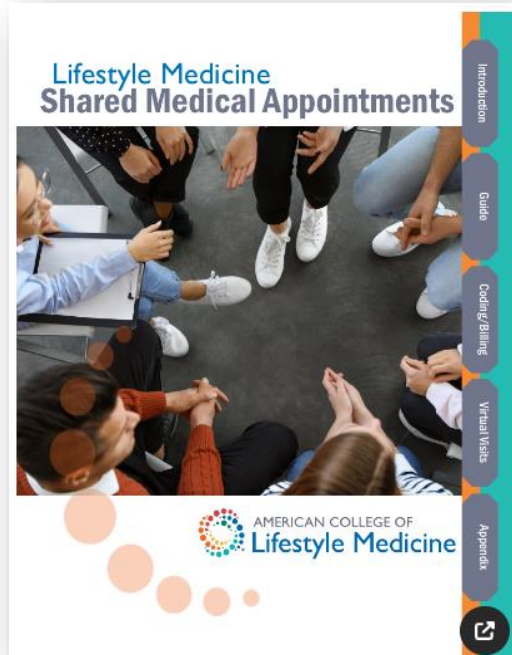
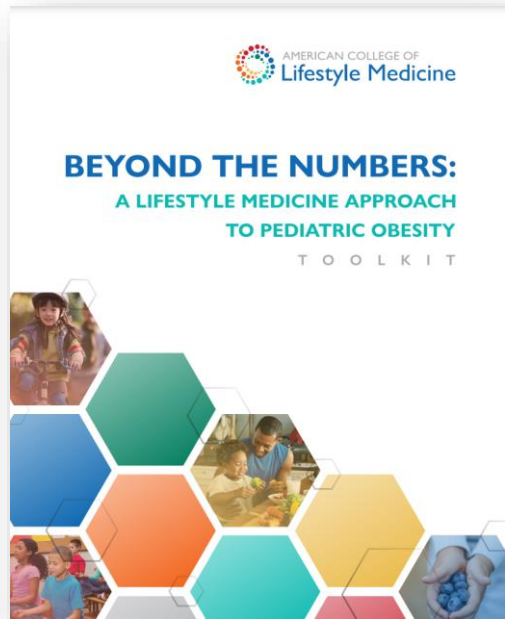
LEARN MORE

The Culinary Medicine Curriculum

Free, ready-to-use 9 week curriculum based on the ground-breaking work of Dr. Michelle Hauser. Highly versatile this framework can be integrated in various health professional education settings. The curriculum establishes a strong foundation in Culinary Medicine and is a key part of supporting patients in achieving better health outcomes. The curriculum comes complete with an instructor's guide, recipes, shopping lists and more.



Example Provider Toolkits



Complimentary Download



LM Assessment Tools

LM Domain	Brief Assessment Sequence	In-Depth Follow-Up Tools
Nutrition	Starting the Conversation ¹	Variety of tools depending on goals of assessment: <ul style="list-style-type: none"> • ASA24 from NCI^{2,3} • Dietary History Questionnaire (DHQ) from NCI^{2,4,6} • Dietary Screener Questionnaire (DSQ) from NCI⁷
Physical Activity	Physical Activity Vital Signs (PAVS) ⁸ (two-question; past week and typical week) or International Physical Activity Questionnaire (IPAQ) Short Form ⁹ (brief survey, past 7 days)	Sedentary Time and Activity Reporting Questionnaire (STAR-Q) ^{10,11} or IPAQ long form ⁹
Sleep	Global Sleep Assessment Questionnaire (GSAQ) ^{12,13}	Pittsburgh Sleep Quality Index ^{14,15} long form
Stress/Well-Being	Patient Health Questionnaire 2 item (PHQ2) ¹⁶⁻¹⁸	Patient Health Questionnaire 8 item (PHQ8) ^{16,20} or 9 item (PHQ9) ^{17,18,26} The PHQ8 should be used if there is no qualified healthcare provider to address suicidality, and the PHQ9 can be used if there is one.
	Perceived Stress Scale ^{19,21} (4 item)	Perceived Stress Scale ^{19,21,27} (10 item)
	Generalized Anxiety Disorder 2 (GAD-2) ^{22,23}	Generalized Anxiety Disorder 7 (GAD-7) ^{22,23} Satisfaction with Life Scale ²⁸
Social Support	A Brief Measure of Social Support ²⁹	A Brief Measure of Social Support ²⁹ Social support for diet ³⁰ Social support for exercise ³⁰
Substance Use	NIDA Quick Screen ³¹ or Tobacco, Alcohol, Prescription Medication, and Other Substance Use (TAPS) Tool, Part One ³² For other specific patient populations needing substance use assessment, please see the NIH curated list of tools	(if yes to any questions on NIDA Quick Screen) NIDA Modified Assist ³¹ or (following TAPS Part Two, Part Two of TAPS automatically follows) Tobacco, Alcohol, Prescription Medication, and Other Substance Use (TAPS) Tool, Part Two ³²



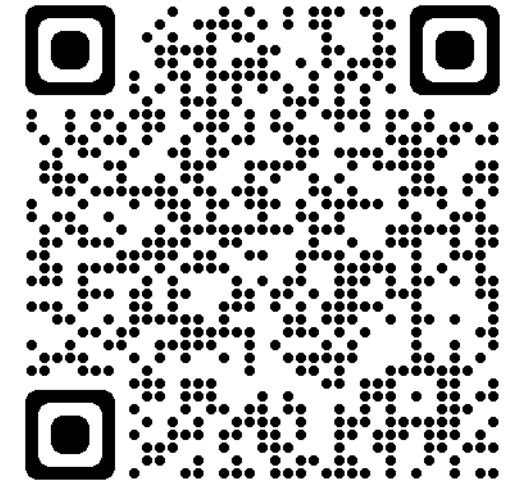
Lifestyle Medicine Assessment

For each item, think about the last seven days and answer 'Yes' or 'No' if you...

1	Felt your life had a sense of purpose	<input type="radio"/> Yes	<input type="radio"/> No
2	Used olive oil as your primary oil or used no oil when cooking	<input type="radio"/> Yes	<input type="radio"/> No
3	Engaged in two or more spiritual or religious practices (e.g., meditation, prayer, church services, etc.)	<input type="radio"/> Yes	<input type="radio"/> No
4	Felt that you were able to manage and deal with stressors effectively most days	<input type="radio"/> Yes	<input type="radio"/> No
5	Interacted with one or more club(s) or organization(s) (e.g., athletic, community, school group, etc.)	<input type="radio"/> Yes	<input type="radio"/> No
6	Smoked, vaped, or used tobacco/e-cigarette	<input type="radio"/> Yes	<input type="radio"/> No
7	Visited or spoke to a close friend or family member on three or more separate occasions	<input type="radio"/> Yes	<input type="radio"/> No
8	Woke up feeling refreshed and rested on most days	<input type="radio"/> Yes	<input type="radio"/> No
9	Spent at least two hours in nature (approximately 20 minutes daily)	<input type="radio"/> Yes	<input type="radio"/> No
10	Felt you had enough time to take care of yourself most days	<input type="radio"/> Yes	<input type="radio"/> No

For each item, think about the last seven days and provide your best estimate for each:

	Most (last 7 days)	1	2	3	4	5	6	7	8	9	10+	
11	Total number of sit-down or take-out restaurant meals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
12	Total number of resistance training workouts performed (e.g., pushups, squats, pullups, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
13	Total number of sweetened drinks consumed (e.g., juice, sweetened coffee or tea, soda, sports drinks, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
14	Highest number of alcoholic drinks consumed on any single day	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
15	Average number of packaged snacks per day (e.g., chips, crackers, cookies, candy, protein bars, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
16	Average number of hours slept per night	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
17	Average number of daily servings of fruit	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
18	Average number of hours spent sitting each day	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
19	Average number of alcoholic drinks consumed on days alcohol was consumed (select less than one if you did not drink any alcohol)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
20	Average number of daily servings of vegetables	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
21	Total amount of cardiorespiratory exercise during the week (e.g., brisk walk, jog, etc.)											
	less than 30 minutes	30 minutes	45 minutes	1 hour	1.5 hours	2 hours	2.5 hours	3 hours	3.5 hours	4 hours	4.5 hours	5 or more hours
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



Complimentary LM Assessment Tool



Publications

NIH National Library of Medicine
National Center for Biotechnology Information

PubMed.gov

Advanced

Save Email

Int J Environ Res Public Health. 2021 Nov 5;18(21):11632. doi: 10.3390/ijerph182111632.

Lifestyle Medicine Reimbursement: A Proposal for Policy Priorities Informed by a Cross-Sectional Survey of Lifestyle Medicine Practitioners

Kelly J Freeman^{1,2}, Meagan L Grega³, Susan M Friedman⁴, Padmaja M Patel^{5,6}, Ron W Stout⁷, Thomas M Campbell⁸, Michelle L Tollefson⁹, Liana S Lianov^{5,10}, Kaitlyn R Pauly¹, Kathryn J Pollard¹¹, Micaela C Karlsen¹¹

Affiliations + expand

PMID: 34770148 PMCID: PMC8583485 DOI: 10.3390/ijerph182111632  

Free PMC article

Abstract

Lifestyle medicine (LM) is a rapidly emerging clinical discipline that focuses on intensive therapeutic lifestyle changes to treat chronic disease, often producing dramatic health benefits. In spite of these well-documented benefits of LM approaches to provide evidence-based care that follows current clinical guidelines, LM practitioners have found reimbursement challenging. The objectives of this paper are to present the results of a cross-sectional survey of LM practitioners regarding lifestyle

ANALYTIC REVIEW

Marc Braman, MD, MPH, FACLM, FACPM, and Mara Edison, OMSIV

How to Create a Successful Lifestyle Medicine Practice

Abstract: *A lifestyle medicine (LM) practice aims to treat the whole person, with a focus on addressing the root lifestyle causes of disease. Creating a practice in LM comes with an array of challenges. Utilizing different payment systems and practice models, such as cash, traditional insurance, Direct Primary Care model, or concierge systems, allows for the incorporation of more LM services and ensures sustainability in the practice. One must develop a sound business model and aim to keep costs low. Optimizing coding, taking advantage of additional LM services, and expanding service formats to group visits or telemedicine are all creative ways to incorporate and develop LM practices. Anticipation of new challenges and flexibility in practice models and payment systems allows one to be successful in starting or transitioning*

having multiple payers with different coverage plans and services covered requires enormous staff, resources, and energy to manage appropriately. These challenges all take time away from providing direct patient care. The systemic inefficiencies, overwhelming paperwork, and depersonalization from lack of provider-patient time produces enormous provider and patient frustration. With the lifestyle medicine

1. The lack of expertise in the components of practice outside of patient care: billing, business, management, marketing, and so on.
2. The lack of LM practice support systems, services, and resources.
3. The lack of LM practice support systems, services, and resources.

Considering the conventional system and ever-growing time constraints, how does one practice this kind of health care and make it financially sustainable?

With the lifestyle medicine (LM) approach, the emphasis is on treating the root lifestyle causes as the foundation of the treatment pyramid.

(LM) approach, the emphasis is on treating the root lifestyle causes as the

The Whole Person Model

Lifestyle Medicine: Shared Medical Appointments

Kelly Freeman, MSN, AGPCNP-BC, DipACLM; Josie Bidwell, DNP, FNP-C, DipACLM

doi: 10.12788/ijp.0278

INTRODUCTION

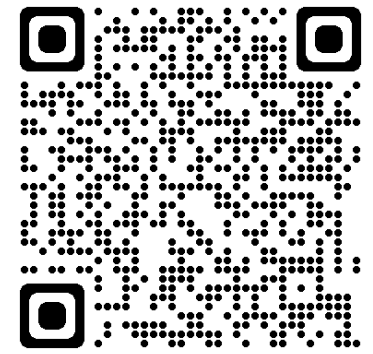
A clinical encounter in which healthcare is offered and delivered in a group setting is known as a shared medical appointment (SMA). All participants receive healthcare services, including education, counseling, physical examinations, and clinical support, within a group environment. The earliest described versions of SMAs include drop-in group medical appointments (DIGMAs) and Cooperative Health Care Clinics (CHCCs).¹ DIGMAs include patients from a single provider's panel who may have differing diagnoses, and these patients can drop in and out of the group visit as needed. For example, 21 patients could come and go during a 2-hour window as they meet with the provider and have their medical needs addressed. This would be instead of scheduled individual visits in which 1 patient might be seen every 15 minutes. CHCCs focus more on specific diagnoses or behaviors, and patients are scheduled to be present for the entire time. For instance, 10 patients could all be scheduled for a CHCC visit at the same time to have their hypertension addressed. More recently, programmed SMAs (pSMAs) have been described as a defined sequence of SMAs that offer specific educational content on a particular topic.² One particular type of pSMA is lifestyle medicine shared medical appointments (LMSMAs), in which the focus is on lifestyle changes that have the potential to improve health outcomes. This article will summarize the benefits of LMSMAs for patients, providers, and health systems; describe author experiences with one type of

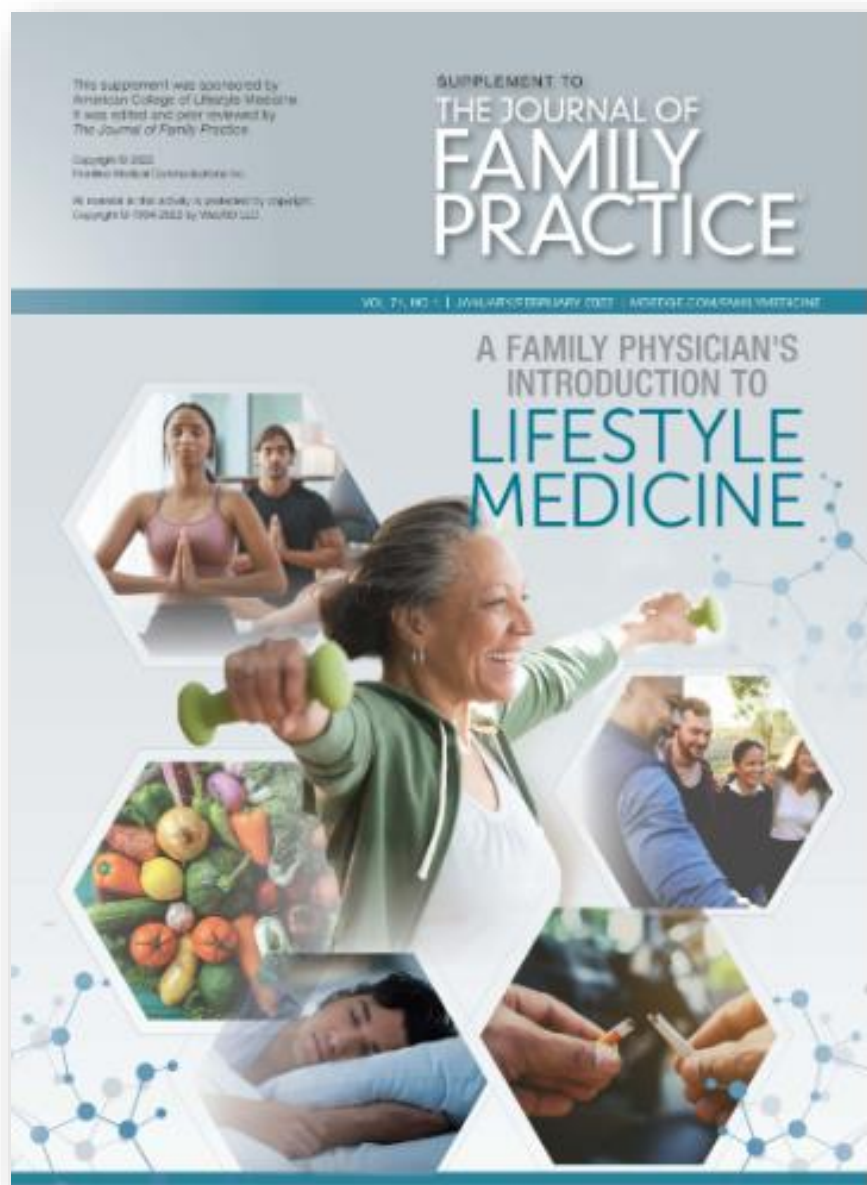
INTRODUCTION

LMSMA; and offer guidance related to the implementation of such services.

SHARED MEDICAL APPOINTMENTS BENEFITS

SMAs have been researched targeting a variety of topics and conditions. Egger et al³ offered a pSMA intervention for weight loss consisting of 16 to 18 weekly visits, with reported benefits in cost savings, participant and provider satisfaction, and time efficiency. A qualitative study of veterans participating in SMAs concluded that these group visits are innovative and offer high levels of patient satisfaction and identified "empowerment, teamwork, convenience, and positive provider characteristics" as some of the many positive themes.⁴ A retrospective review of a breast cancer survivorship SMA that offered education and experience in culinary medicine, nutrition, physical activity, and stress relief practices demonstrated a significant weight reduction post-intervention.⁴ Reports of quality of life, depression, and perceived stress trended positively, and patients reported a statistically significant decrease in average weekly fat consumption of 31%. A narrative review of a multidisciplinary, nonpharmacologic SMA by Menon et al⁵ showed that it was associated with decreased costs and improved diabetes-related behavior and lifestyle. Znidarsic et al⁶ conducted a pre- and post-analysis of a chronic pain SMA that included 178 participants and concluded that the participants reported reduced pain and improved social, physical, and mental health measures.





<https://www.mdedge.com/familymedicine/article/246677/family-physicians-introduction-lifestyle-medicine>

Acknowledgment

S1

Introduction

Making the Case for Lifestyle Medicine
S2-S4

Defining Lifestyle Medicine: Six Pillars

Nutrition—An Evidence-Based, Practical Approach to Chronic Disease Prevention and Treatment
S5-S16

Lifestyle Medicine: Physical Activity
S17-S23

Lifestyle Medicine and Stress Management
S24-S29

Sleep and Health—A Lifestyle Medicine Approach
S30-S34

Avoidance of Risky Substances: Steps to Help Patients Reduce Anxiety, Overeating, and Smoking
S35-S37

Positive Social Connection: A Key Pillar of Lifestyle Medicine
S38-S40

Power and Practice of Lifestyle Medicine in Chronic Disease

Type 2 Diabetes Prevention and Management With a Low-Fat, Whole-Food, Plant-Based Diet
S41-S47

Cardiovascular Disease and Lifestyle Medicine
S48-S55

Primary Care Clinicians, Cancer Survivorship, and Lifestyle Medicine
S56-S61

Lifestyle Medicine Practice

Lifestyle Medicine: Shared Medical Appointments
S62-S65

Future Vision

Lifestyle Medicine Education: Essential Component of Family Medicine
S66-S70

The Future of Lifestyle Medicine for Family Physicians
S71-S72

The entire A Family Physician's Introduction to Lifestyle Medicine supplement, including the online exclusive articles below, can be found at <https://www.mdedge.com/familymedicine/Introduction-to-Lifestyle-Medicine>.

ONLINE EXCLUSIVES

Factors Affecting the Pillars of Lifestyle Medicine

The Call for Lifestyle Medicine Interventions to Address the Impact of Adverse Childhood Experiences
eS73-eS77

Optimizing Health and Well-Being: The Interplay Between Lifestyle Medicine and Social Determinants of Health
eS78-eS82

Power and Practice of Lifestyle Medicine in Chronic Disease

Lifestyle Intervention and Alzheimer Disease
eS83-eS89

Lifestyle Medicine as Treatment for Autoimmune Disease
eS90-eS92

Lifestyle Medicine Practice

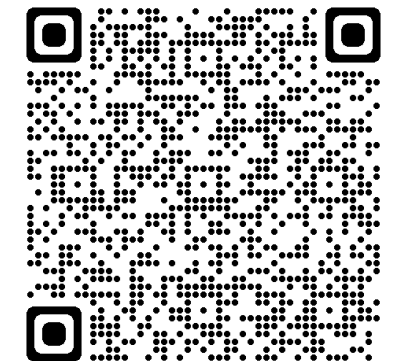
A Coach Approach to Facilitating Behavior Change
eS93-eS99

A Lifestyle Medicine Approach to Medication Deprescribing: An Introduction
eS100-eS104

Reimbursement as Medicine Practices
eS105-eS109

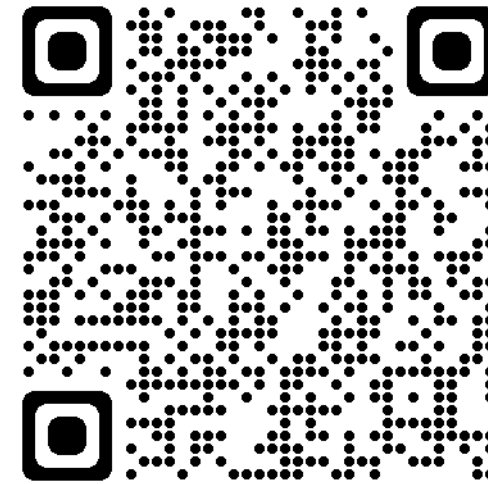
A Framework for C Medical Communities
eS110-eS116

An Approach to Nu Physicians: Focus Structure, and Food
eS117-eS123



Guidance Documents

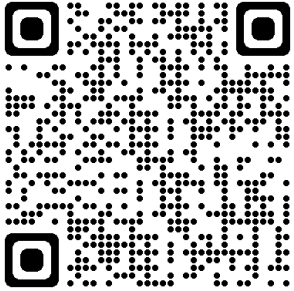
The screenshot displays the Sage Journals interface for the American Journal of Lifestyle Medicine. At the top, there is a search bar and navigation links for 'Access/Profile' and 'Cart'. Below the journal title, the article title is prominently displayed: 'Dietary Interventions to Treat Type 2 Diabetes in Adults with a Goal of Remission: An Expert Consensus Statement from the American College of Lifestyle Medicine'. The authors listed are Richard M. Rosenfeld, MD, MPH, MBA; John H. Kelly, MD, MPH; and Micaela C. Karlsen, PhD, MSPH. The article is noted as 'Free access' and 'First published online May 18, 2022'. A navigation bar includes links for 'Contents', 'PDF / ePub', 'Cite article', 'Share options', 'Information, rights and permissions', 'Metrics and citations', and 'Figures and tables'. The 'Abstract' section is visible, starting with the 'Objective:' which states the goal is to assist clinicians in achieving remission of type 2 diabetes (T2D) in adults using diet as a primary intervention. The 'Methods:' section describes a modified Delphi process. The 'Results:' section begins by stating that the expert panel identified 131 candidate consensus statements. A 'Related content' sidebar on the right shows a 'Free access' link to the full article.





Complimentary Access



Complimentary SMA curriculum



Implementation Models

Lifestyle Medicine Intensive Program

Summary Statement:
At Trinity Health Ann Arbor, we support patients on their journey to better health. Our Board-Certified Lifestyle Medicine Specialists work collaboratively to help patients realize their fullest potential through lifestyle change.

Background Facts:

- Designed a program centered in lifestyle medicine to address a variety of chronic diseases within the Ann Arbor region.
- Saw a need for self-care driven largely by the disproportionate impact of COVID on those suffering from or exhibiting significant risk factors for chronic disease.
- Saw an opportunity to engage in risk reduction and disease prevention prior to development of disease.

Objectives

- Work with specialists one-on-one to create an individualized plan based on risks and health goals.
- Understand baseline laboratory values, identify areas for improvement that have the largest positive impact on health, and work collaboratively with patients to design meaningful and achievable goals.
- Guide patients step by step through meaningful strides to create long-lasting changes on their journey to whole health.

Program Design

Week 1: Goal setting and

Billing/Coding

Outcome Measures
Pre/Post Lab Panel

Pre/Post Lifestyle Medicine Short Form

Summary of Findings
Data collection in process

Implications for LM Practice
Piloting this program in Ann Arbor to

UC San Diego Health

Home DPP Patient Hub Physical Activity Clinician Hub Contact

SLIM Curriculum

Supervised Lifestyle and Integrative Medicine (SLIM) Weight Loss

Your weight can affect your health and overall quality of life. If you've had a hard time losing weight on your own, talk to a doctor.

UC San Diego Health's Supervised Lifestyle and Integrative Medicine (SLIM) Weight Loss Program can help you reach your weight loss goals with healthy habits and intensive lifestyle management.



LEARN MORE



Implementation Opportunity

Call for Collaboration

ACLM is seeking health-system or practice level collaborators to pilot test the feasibility and financial sustainability of running the Lifestyle Empowerment Approach for Diabetes Remission (LEADR) program, a diabetes intervention curriculum developed by ACLM. We are seeking collaborators who may be partners on grant applications for funding to conduct research on the clinician experience, patient engagement, and successful reimbursement for the program.

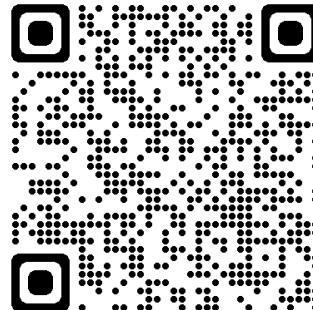
LEADR: Lifestyle Empowerment Approach for Diabetes Remission

Project title: Lifestyle Empowerment Approach for Diabetes Remission (LEADR): Piloting a lifestyle medicine intervention to improve patient outcomes, support long-term behavior change, and achieve sustainable implementation for clinicians.



Method of approach: The LEADR curriculum, developed by the American College of Lifestyle Medicine (ACLM), takes a novel, patient-centered, evidence-based approach to implement lifestyle medicine (LM) for health restoration. Though major medical authorities recommend diet and lifestyle as a first-line treatment for chronic

Diabetes Remission Pilot Project



LEADR CONTENT OUTLINE

Weekly Session Titles

1. Getting Started with Diabetes Remission
2. Change Your Lifestyle, Transform Your Health
3. Understanding Diabetes
4. Fine-Tuning for Diabetes Remission
5. Meal Makeovers: How to Enjoy a Full Plate and Still Reach Your Diabetes Goals
6. Changing the Game for Your Health
7. It's More than Just Food
8. Want to Rev Up Your Healthy Life?
9. Controlling Our Diabetes Destinies
10. Smart Grocery Shopping
11. Meal Planning, Cooking, and Dining Out
12. Preparing for Your Journey Ahead

[CLICK HERE TO VIEW SESSION DETAILS AND SAMPLE PAGES](#)

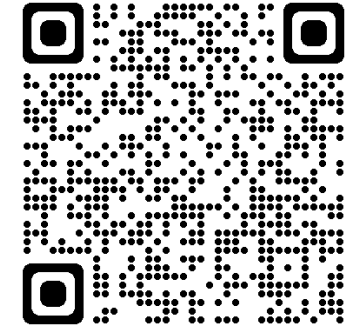


LEADR PARTICIPANT WORKBOOK

EXAMPLE LIFESTYLE MEDICINE PROGRAMS/MODELS

Program Name	Targeted population
Diabetes Prevention Program	Individuals diagnosed with prediabetes or gestational diabetes https://www.cdc.gov/diabetes/prevention/index.html
Cardiac Rehab	Recent MI, ACAS, chronic stable angina, CHF, post CABG, post PCI, valvular surgery, cardiac transplantation
Intensive Cardiac Rehab (Pritikin, Benson Henry and Ornish)	Same indications as regular cardiac rehab https://pritikinicr.com , https://www.ornish.com/
Pivio (formally Complete Health Improvement Program CHIP)	Type 2 diabetes, heart disease, obesity https://piviohealth.com/
Model Name	Targeted population
New York City	The entire population of New York City https://www.nyc.gov/office-of-the-mayor/news/879-22/mayor-adams-american-college-lifestyle-medicine-44-million-offer-lifestyle?s=09#/0
Veterans Administration	Whole Health - https://www.va.gov/WHOLEHEALTHLIBRARY/tools/index.asp

Lifestyle Medicine Certified Programs



Program Certification Minimum Requirements



Lifestyle Medicine Program Honorable Mention, Certification, or Gold Certification Minimum Requirements

* Denotes that Certified or Gold Certified requirements are greater than Honorable Mention

** Denotes that Gold Certified requirements are greater than Certified

Honorable Mention Status Minimum Requirements	Certified Minimum Requirements	Gold Certified Minimum Requirements
<ol style="list-style-type: none"> Active for at least one year In alignment with the six pillars of Lifestyle Medicine, for those pillars which are a focus of the program (focus on all six pillars is not required) No known negative side effects or resulting increased need for medications for chronic disease as a result of program participation At least 100 participants to date Program design is strongly informed by existing scientific evidence At least three live program sessions (could be group or individual sessions, or combination, with participant-specific interaction, goal-setting and follow-up). 	<ol style="list-style-type: none"> Active for at least one year In alignment with the six pillars of Lifestyle Medicine, for those pillars which are a focus of the program (focus on all six pillars is not required) No known negative side effects or resulting increased need for medications for chronic disease as a result of program participation At least 100 participants to date Program design is strongly informed by existing scientific evidence * At least five live program sessions (could be group or individual sessions, or combination, with participant-specific interaction, goal-setting and follow-up). 	<ol style="list-style-type: none"> Active for at least one year In alignment with the six pillars of Lifestyle Medicine, for those pillars which are a focus of the program (focus on all six pillars is not required) No known negative side effects or resulting increased need for medications for chronic disease as a result of program participation ** At least 1000 participants to date Program design is strongly informed by existing scientific evidence * At least five live program sessions (could be group or individual sessions, or combination, with participant-specific interaction, goal-setting and follow-up).

Current Certified Programs



Pivio is a powerful disease reversal tool that disrupts and curtails the rising chronic disease rates in a highly effective manner. We congratulate the program as the first to earn this prestigious designation. – ACLM Past-President Dexter Shurney, MD, MBA, MPH, FACLM, DipABLM. [Pivio – The Complete Health Improvement Program – Pivio \(piviohealth.com\)](#)



ACLM is proud to recognize the **Chanwuyi Lifestyle Medicine Program** as a Certified Lifestyle Medicine Program. We celebrate the impact and outcomes Dr. Chan has been able to document. – ACLM President Cate Collings, MD, MS, FACC, DipABLM Home | [Chanwuyi Lifestyle Medicine Program \(cuhk.edu.hk\)](#)



The Lift Project contains insights that benefit everyone, regardless of where they are on the mental health continuum. ACLM is proud to recognize The Lift Project as a Certified Lifestyle Medicine Program. – ACLM President Cate Collings, MD, MS, FACC, DipABLM [The Lift Project](#)



ACLM is excited to recognize **Rochester Lifestyle Medicine Institute's 15-Day WFPB Jumpstart** as a Certified Lifestyle Medicine Program. Jumpstart gives participants the knowledge, tools and motivation they need to completely change their lives through a scientifically proven whole-food plant-based approach to eating. – ACLM President Cate Collings, MD, MS, FACC, DipABLM

[Home | Rochester Lifestyle Medicine Institute](#)



Full Plate Living is a science-based nutrition improvement program provided as a free service by Ardmore Institute of Health. Full Plate Living helps people add more whole, unprocessed fiber foods to meals they're already eating. It's a small step approach that can lead patients and clients to big health outcomes. [Full Plate Living – A doable approach to healthy living.](#)

EXAMPLE LIFESTYLE MEDICINE PRESCRIPTIONS AND RESOURCES

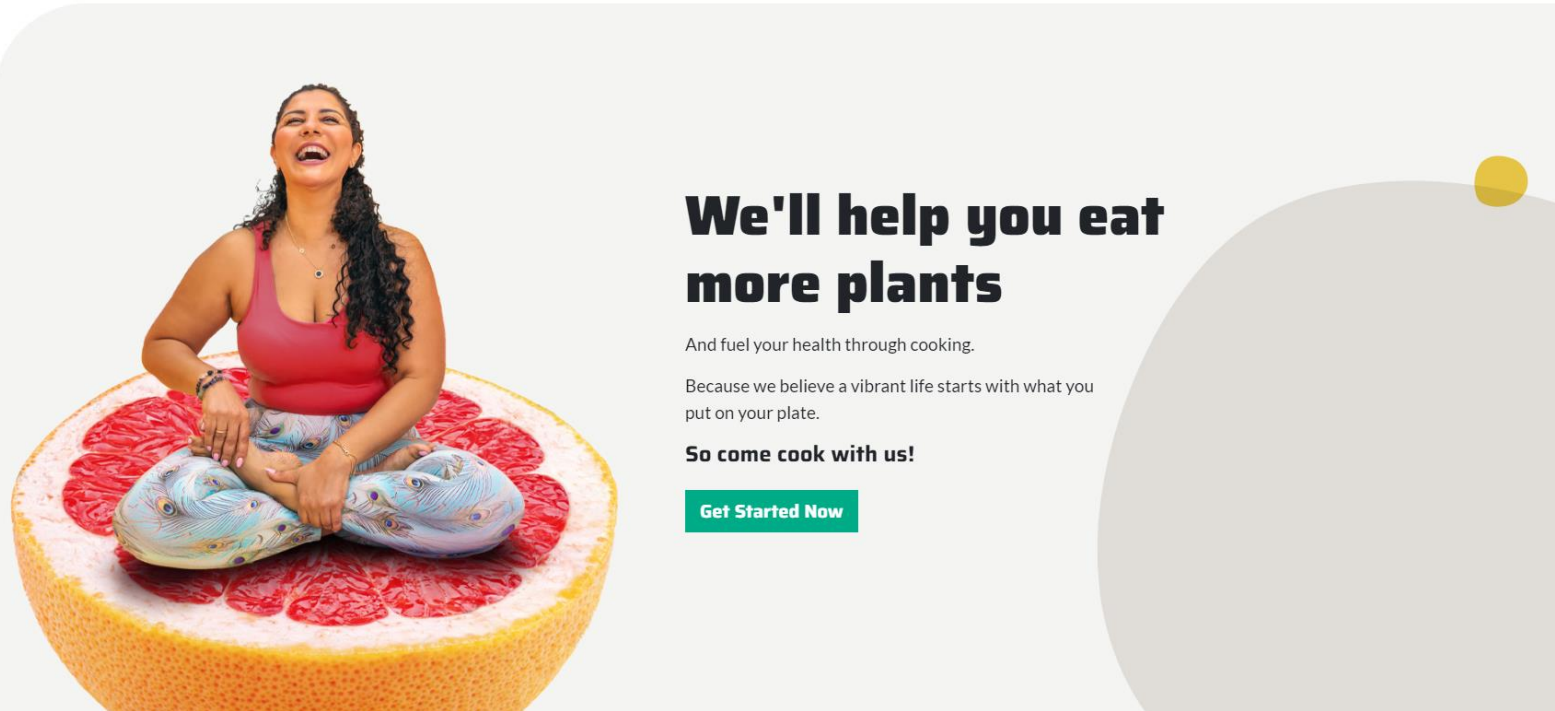
Type	Example(s)
Documentaries	Plantwise, Optimizing Life (Indiana), Code Blue
Apps	Headspace, Better Therapeutics, Calm
Online nutrition resources	Rouxbe Culinary Rx, The Big Switch
Physical Activity Interventions	Exercise is Medicine, Park Rx
Nutrition Interventions	Food is Medicine, produce prescriptions, medically tailored meal programs, Full Plate Living
Sleep Interventions	CBTi



Free Culinary Training

Swich

[Blog](#) [How it Works](#) [Meet Us](#) [Live Events](#) [Sign in](#) [Get Started](#)



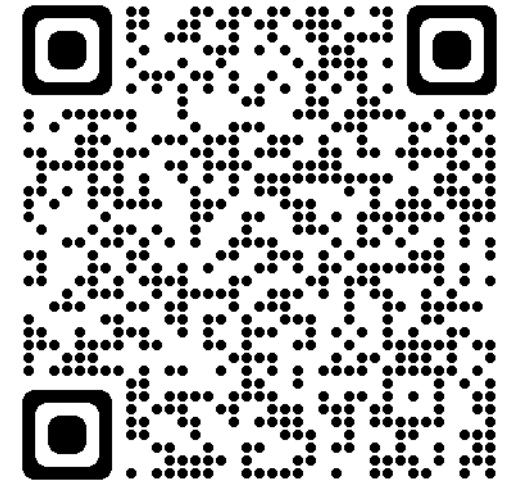
We'll help you eat more plants

And fuel your health through cooking.

Because we believe a vibrant life starts with what you put on your plate.

So come cook with us!

[Get Started Now](#)

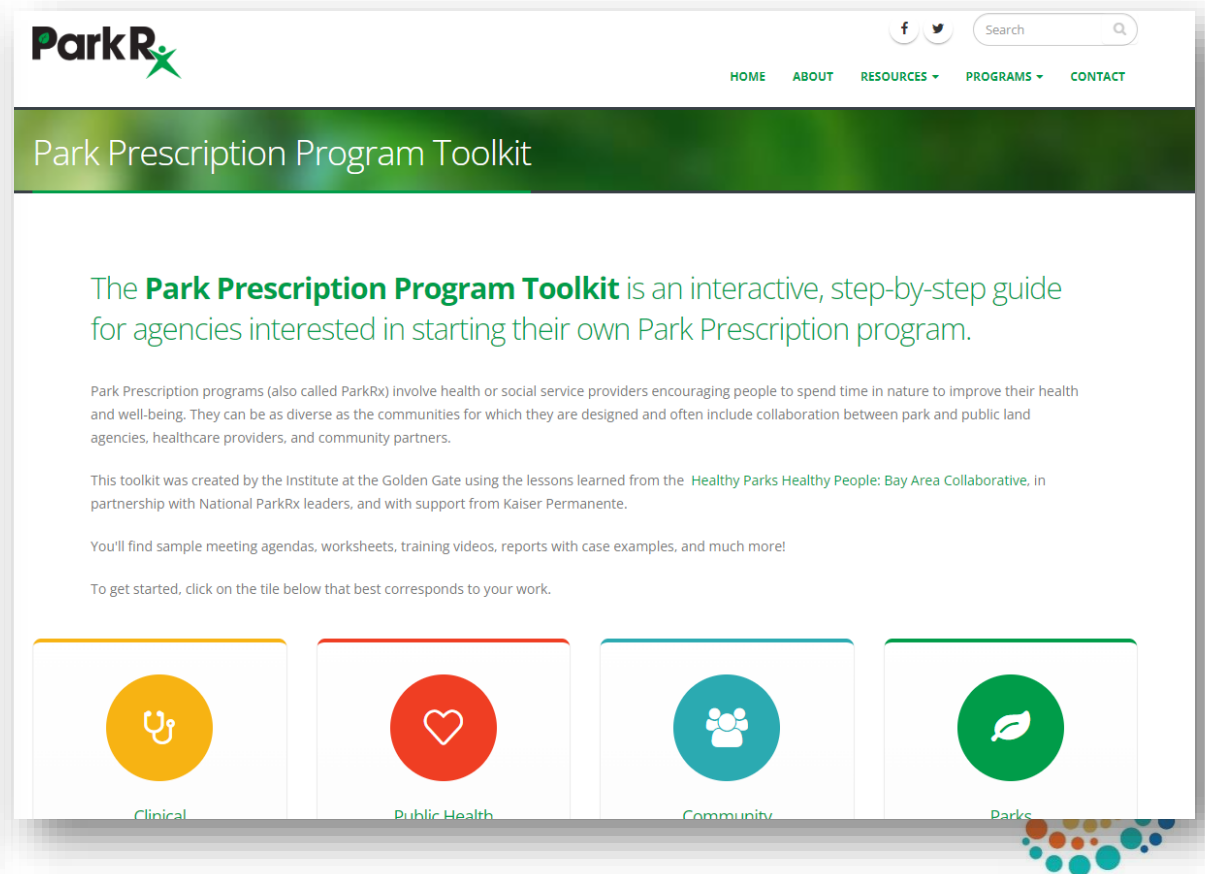


Physical Activity Interventions



EXERCISE IS MEDICINE®
ACSM's Rx for Health

HEALTH CARE PROVIDERS Physical Activity: A Standard in Health Care	EXERCISE PROFESSIONALS An Integral Role: An Extension of Health Care	EIM ON CAMPUS Engaging Campuses in Physical Activity
--	--	--



ParkRx

HOME ABOUT RESOURCES PROGRAMS CONTACT

Park Prescription Program Toolkit





The **Park Prescription Program Toolkit** is an interactive, step-by-step guide for agencies interested in starting their own Park Prescription program.

Park Prescription programs (also called ParkRx) involve health or social service providers encouraging people to spend time in nature to improve their health and well-being. They can be as diverse as the communities for which they are designed and often include collaboration between park and public land agencies, healthcare providers, and community partners.

This toolkit was created by the Institute at the Golden Gate using the lessons learned from the **Healthy Parks Healthy People: Bay Area Collaborative**, in partnership with National ParkRx leaders, and with support from Kaiser Permanente.

You'll find sample meeting agendas, worksheets, training videos, reports with case examples, and much more!

To get started, click on the tile below that best corresponds to your work.

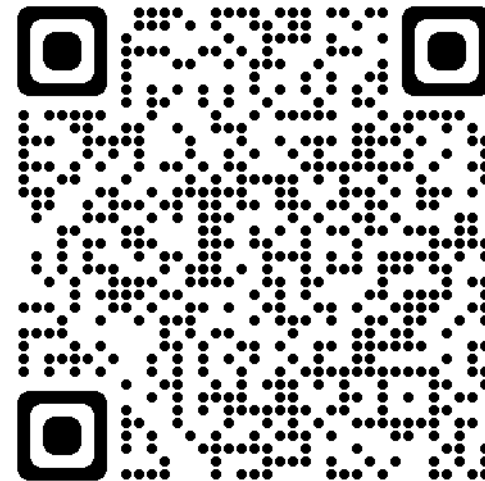
 Clinical	 Public Health	 Community	 Parks
---	--	--	--

Complimentary Webinars



Medication Deprescribing and Type 2 Diabetes

Presented on **June 7, 2023**: The American College of Lifestyle Medicine (ACLM) just published a [qualitative case series research study](#) that provides valuable insights into the protocols that can guide clinical decision-making on medication deprescribing for type 2 diabetes patients. The study, published in *Clinical Diabetes*, presents the first published examples of protocols that can help clinicians deprescribe medications safely and effectively following successful lifestyle medicine interventions.



Complimentary Patient Education

CÓMO IMPULSARLOS A UTILIZAR EL ALIMENTO COMO UNA MEDICINA



AMERICAN COLLEGE OF Lifestyle Medicine

Avoiding Risky Substances

Alcohol

Substances such as alcohol, tobacco, and recreational drugs such as marijuana and other opiates have significant health effects on children, pregnant and other children. They also increase the risk of substance use disorders and other health problems. When you are ready to quit, and have the possible support from family, friends, community resources, and a primary care physician to assist in the journey, seek to transition about potentially used substances. Their effects on infants and young children, and potentially used substances, their effects on infants and young children, and potentially used substances.

Alcohol

Alcohol is essential for the gut and plays the mother's reproductive. Alcohol and its byproducts cause the placenta and are also in the bloodstream. Side effects of excessive use of alcohol can include hypertension, low birth weight, miscarriage and stillbirth.

Alcohol

Alcohol is essential for the gut and plays the mother's reproductive. Alcohol and its byproducts cause the placenta and are also in the bloodstream. Side effects of excessive use of alcohol can include hypertension, low birth weight, miscarriage and stillbirth.

Lifestyle Stress Reduction

Self-Management Tips

- Get 7-9 hours of sleep
- Exercise regularly
- Eat a healthy diet
- Practice stress management techniques
- Get support from family and friends
- Take breaks from work
- Practice good time management
- Practice good communication
- Practice good problem-solving
- Practice good decision-making
- Practice good conflict resolution
- Practice good negotiation
- Practice good persuasion
- Practice good influence
- Practice good leadership
- Practice good management
- Practice good organization
- Practice good planning
- Practice good execution
- Practice good evaluation
- Practice good improvement
- Practice good innovation
- Practice good creativity
- Practice good problem-solving
- Practice good decision-making
- Practice good conflict resolution
- Practice good negotiation
- Practice good persuasion
- Practice good influence
- Practice good leadership
- Practice good management
- Practice good organization
- Practice good planning
- Practice good execution
- Practice good evaluation
- Practice good improvement
- Practice good innovation
- Practice good creativity

Good Stress/Bad Stress

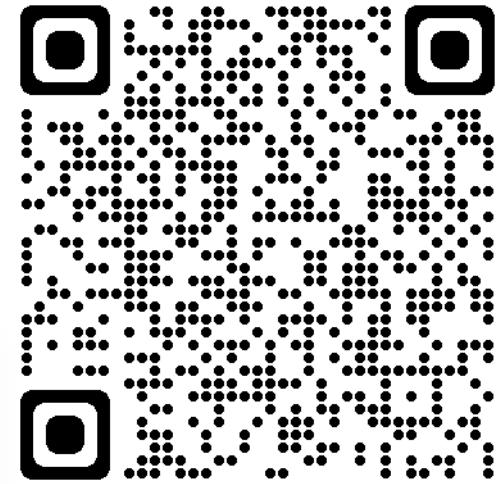
Good stress is that which motivates you to take action. Bad stress is that which overwhelms you and prevents you from taking action.

Stress Reduction Goals

Reduce stress levels by 50% within 30 days.

Stress Reduction Goals

Reduce stress levels by 50% within 30 days.



DIETARY SPECTRUM

AMERICAN COLLEGE OF Lifestyle Medicine

THE AMERICAN COLLEGE OF LIFESTYLE MEDICINE DIETARY POSITION STATEMENT
ACLM recommends an eating plan based predominantly on a variety of minimally processed vegetables, fruits, whole grains, legumes, nuts and seeds.

WHAT AMERICA EATS

Increase whole plant foods, fruits, vegetables, whole grains, legumes, nuts, seeds, water

Decrease sweets and snacks, fast food, fried foods, refined grains, refined sugar, meat, dairy, eggs, poultry, high sodium foods

Increased risk for Obesity, T2Diabetes, Heart Disease, and some Cancers

Poor nutrition is the leading cause of death globally.

Decreased risk for Obesity, T2Diabetes, Heart Disease, and some Cancers

Chronic disease treatment and potential reversal

TIPS FOR IMPROVED NUTRITION AND HEALTH

- Any movement toward WFPB eating is positive
- More movement toward a WFPB eating plan increases impact
- Tailored and sustainable approaches are recommended

What We Eat in America (WWEIA) Food Category analyses for the 2015 Dietary Guidelines Advisory Committee. Estimates based on day 1 dietary recalls from NHANES 2009-2010.
Tate R, Brantley M, de Bruin B, Berenson G. Nutrient update for physicians: plant-based diets. Perm J. 2018;17(2):E1-6E.
Food Planet Health. Earthrun.org. Published 2020. Accessed June 4, 2020.



LM from an RDN perspective

Kaitlyn Pauly

- Lifestyle medicine is what I envisioned healthcare would be before I got into healthcare
- Proactive, team-based, addresses root cause health behaviors that lead to most chronic disease or impact health outcomes, therapeutic doses of intervention (not just "eat better and exercise"), can achieve disease remission/reversal, can be powerful adjunct to any other clinical treatment
- Imagine a world where people turn to health care to receive intensive and non-intensive lifestyle change interventions, fully covered by insurance, to prevent, treat or reverse disease, allowing them to achieve a high quality of life – it should at least be an option for patients who want this from health care



LM from a nursing perspective

Kelly Freeman

Nurses and advanced practice nurses are key providers of health education and healthcare

- Lifestyle medicine can impact not only patients, but also the nurses and advanced practice nurses who know, understand, and implement therapeutic lifestyle interventions in their own lives.
- Lifestyle medicine has the potential to support nurse well-being, help prevent burnout, and improve resilience.
- Therapeutic lifestyle interventions are well within the scope of practice of nurses and advanced practice nurses.
- Nurses can advocate for what is needed to move therapeutic lifestyle interventions into their setting
- Nurses are well positioned to coordinate and lead lifestyle medicine shared medical visits and group visits alongside healthcare providers
- Lifestyle medicine aligns with person-centered care, putting the patient's desires for healthier outcomes on a path alongside the therapeutic interventions known to best optimize health
- Lifestyle medicine aligns with the quintuple aim of an improved patient experience, better health outcomes, lower costs, clinician satisfaction, and health equity
- This IS high value care





ACLM Vision:

A world wherein lifestyle medicine is the foundation of health and all health care.

ACLM Mission:

Advancing evidenced-based lifestyle medicine to treat, reverse and prevent non-communicable, chronic disease.

ACLM educates, equips, empowers and supports its members as they provide evidence-based lifestyle medicine as the first treatment option in clinical practice and worksite settings through live and online CME-accredited events and educational offerings, certification, clinical practice tools, patient education resources, economic research, networking opportunities and advocacy efforts.



Be Engaged

WEBSITES

ACLM: lifestylemedicine.org

ABLM: ablm.org

LM2023: lmconference.org

CONTACTS

Kaitlyn Pauly - kpauly@lifestylemedicine.org

Kelly Freeman - kfreeman@lifestylemedicine.org

support@lifestylemedicine.org

FOLLOW US

Facebook: [@lifestylemed](https://www.facebook.com/@lifestylemed)

Instagram: [aclifemed](https://www.instagram.com/aclifemed)

Linkedin: American College of Lifestyle Medicine

Twitter: [ACLifeMed](https://twitter.com/ACLifeMed)



References

Afshin, A., Sur, P. J., Fay, K. A., Cornaby, L., Ferrara, G., Salama, J. S., Mullany, E. C., Abate, K. H., Abbafati, C., Abebe, Z., Afarideh, M., Aggarwal, A., Agrawal, S., Akinyemiju, T., Alahdab, F., Bacha, U., Bachman, V. F., Badali, H., Badawi, A., ... Murray, C. J. L. (2019). Health effects of dietary risks in 195 countries, 1990–2017: a systematic analysis for the Global Burden of Disease Study 2017. *The Lancet*, 393(10184), 1958–1972. [https://doi.org/10.1016/S0140-6736\(19\)30041-8](https://doi.org/10.1016/S0140-6736(19)30041-8)

Arnett, D. K., Blumenthal, R. S., Albert, M. A., Buroker, A. B., Goldberger, Z. D., Hahn, E. J., Himmelfarb, C. D., Khera, A., Lloyd-Jones, D., McEvoy, J. W., Michos, E. D., Miedema, M. D., Muñoz, D., Smith, S. C., Jr, Virani, S. S., Williams, K. A., Sr, Yeboah, J., & Ziaeian, B. (2019). 2019 ACC/AHA Guideline on the Primary Prevention of Cardiovascular Disease: A Report of the American College of Cardiology/American Heart Association Task Force on Clinical Practice Guidelines. *Circulation*, 140(11), e596–e646. <https://doi.org/10.1161/CIR.0000000000000678>

Bradley, M. D., Arnold, M. E., Biskup, B. G., Campbell, T. M., 2nd, Fuhrman, J., Guthrie, G. E., Kelly, J. H., Lacagnina, S., Loomis, J. F., McMacken, M. M., Trapp, C., & Karlsen, M. C. (2023). Medication Deprescribing Among Patients With Type 2 Diabetes: A Qualitative Case Series of Lifestyle Medicine Practitioner Protocols. *Clinical Diabetes: A Publication of the American Diabetes Association*, 41(2), 163–176. <https://doi.org/10.2337/cd22-0009>

Braman, M., & Edison, M. (2017). How to Create a Successful Lifestyle Medicine Practice. *American Journal of Lifestyle Medicine*, 11(5), 404–407. <https://doi.org/10.1177/1559827617696296>

Cara, K. C., Goldman, D. M., Kollman, B. K., Amato, S. S., Tull, M. D., & Karlsen, M. C. (2023). Commonalities among Dietary Recommendations from 2010 to 2021 Clinical Practice Guidelines: A Meta-Epidemiological Study from the American College of Lifestyle Medicine. *Advances in Nutrition*, 14(3), 500–515. <https://doi.org/10.1016/j.advnut.2023.03.007>

Cash, R. E., Beverly Hery, C. M., Panchal, A. R., & Bower, J. K. (2020). Association Between Sleep Duration and Ideal Cardiovascular Health Among US Adults, National Health and Nutrition Examination Survey, 2013–2016. *Preventing Chronic Disease*, 17, E43. <https://doi.org/10.5888/pcd17.190424>

References (continued)

Decision Memo for Intensive Cardiac Rehabilitation (ICR) Program - Pritikin Program (CAG-00418N). (n.d.). Retrieved January 27, 2021, from <https://www.cms.gov/medicare-coverage-database/details/nca-decision-memo.aspx?NCAId=239&bc=AiAAAAAAAgAAAA%3D%3D&>

Fadnes, L. T., Økland, J.-M., Haaland, Ø. A., & Johansson, K. A. (2022). Estimating impact of food choices on life expectancy: A modeling study. *PLoS Medicine*, 19(2), e1003889. <https://doi.org/10.1371/journal.pmed.1003889>

Ford, E. S., Bergmann, M. M., Kröger, J., Schienkiewitz, A., Weikert, C., & Boeing, H. (2009). Healthy living is the best revenge: findings from the European Prospective Investigation Into Cancer and Nutrition-Potsdam study. *Archives of Internal Medicine*, 169(15), 1355–1362. <https://doi.org/10.1001/archinternmed.2009.237>

Freeman, K., & Bidwell, J. (2022). Lifestyle Medicine: Shared Medical Appointments. *The Journal of Family Practice*, 71(Suppl 1 Lifestyle), S62–S65. <https://doi.org/10.12788/jfp.0278>

Gould, K. L., Ornish, D., Kirkeeide, R., Brown, S., Stuart, Y., Buchi, M., Billings, J., Armstrong, W., Ports, T., & Scherwitz, L. (1992). Improved stenosis geometry by quantitative coronary arteriography after vigorous risk factor modification. *The American Journal of Cardiology*, 69(9), 845–853. [https://doi.org/10.1016/0002-9149\(92\)90781-s](https://doi.org/10.1016/0002-9149(92)90781-s)

Gregg, E. W., Chen, H., Wagenknecht, L. E., Clark, J. M., Delahanty, L. M., Bantle, J., Pownall, H. J., Johnson, K. C., Safford, M. M., Kitabchi, A. E., Pi-Sunyer, F. X., Wing, R. R., Bertoni, A. G., & Look AHEAD Research Group. (2012). Association of an intensive lifestyle intervention with remission of type 2 diabetes. *JAMA: The Journal of the American Medical Association*, 308(23), 2489–2496. <https://doi.org/10.1001/jama.2012.67929>

Gunja, M. Z., Gumas, E. D., & Williams, R. D., II. (2023). U.S. health care from a global perspective, 2022: Accelerating spending, worsening outcomes. *Commonwealth Fund*. <https://doi.org/10.26099/8EJY-YC74>

References (continued)

Katzmarzyk, P. T., Powell, K. E., Jakicic, J. M., Troiano, R. P., Piercy, K., Tennant, B., & 2018 PHYSICAL ACTIVITY GUIDELINES ADVISORY COMMITTEE*. (2019). Sedentary Behavior and Health: Update from the 2018 Physical Activity Guidelines Advisory Committee. *Medicine and Science in Sports and Exercise*, 51(6), 1227–1241. <https://doi.org/10.1249/MSS.0000000000001935>

Kelly, J., Karlsen, M., & Steinke, G. (2020). Type 2 Diabetes Remission and Lifestyle Medicine: A Position Statement From the American College of Lifestyle Medicine. *American Journal of Lifestyle Medicine*, 14(4), 406–419. <https://doi.org/10.1177/1559827620930962>

Lianov, L. S., Adamson, K., Kelly, J. H., Matthews, S., Palma, M., & Rea, B. L. (2022). Lifestyle Medicine Core Competencies: 2022 Update. *American Journal of Lifestyle Medicine*, 16(6), 734–739. <https://doi.org/10.1177/15598276221121580>

Loprinzi, P. D., Branscum, A., Hanks, J., & Smit, E. (2016). Healthy Lifestyle Characteristics and Their Joint Association With Cardiovascular Disease Biomarkers in US Adults. *Mayo Clinic Proceedings*. Mayo Clinic, 91(4), 432–442. <https://doi.org/10.1016/j.mayocp.2016.01.009>

Martínez Steele E, Baraldi LG, Louzada ML da C, Moubarac JC, Mozaffarian D, Monteiro CA. Ultra-processed foods and added sugars in the US diet: evidence from a nationally representative cross-sectional study. *BMJ Open*. 2016;6(3):e009892. doi:10.1136/bmjopen-2015-009892

Medina, N. M. (2023, September 7). How do you prescribe exercise in primary prevention? Medscape. <https://www.medscape.com/viewarticle/996208>

Murray, C. J. L., Atkinson, C., Bhalla, K., Birbeck, G., Burstein, R., Chou, D., Dellavalle, R., Danaei, G., Ezzati, M., Fahimi, A., Flaxman, D., Foreman, Gabriel, S., Gakidou, E., Kassebaum, N., Khatibzadeh, S., Lim, S., Lipshultz, S. E., London, S., ... U.S. Burden of Disease Collaborators. (2013). The state of US health, 1990-2010: burden of diseases, injuries, and risk factors. *JAMA: The Journal of the American Medical Association*, 310(6), 591–608. <https://doi.org/10.1001/jama.2013.13805>

References (continued)

Ornish, D., Brown, S. E., Scherwitz, L. W., Billings, J. H., Armstrong, W. T., Ports, T. A., McLanahan, S. M., Kirkeeide, R. L., Brand, R. J., & Gould, K. L. (1990). Can lifestyle changes reverse coronary heart disease? The Lifestyle Heart Trial. *The Lancet*, 336(8708), 129–133. [https://doi.org/10.1016/0140-6736\(90\)91656-u](https://doi.org/10.1016/0140-6736(90)91656-u)

Panigrahi, G., Goodwin, S. M., Staffier, K. L., & Karlsen, M. (2023). Remission of Type 2 Diabetes After Treatment With a High-Fiber, Low-Fat, Plant-Predominant Diet Intervention: A Case Series. *American Journal of Lifestyle Medicine*, 15598276231181574. <https://doi.org/10.1177/15598276231181574>

Rosenfeld, R. M., Kelly, J. H., Agarwal, M., Aspary, K., Barnett, T., Davis, B. C., Fields, D., Gaillard, T., Gulati, M., Guthrie, G. E., Moore, D. J., Panigrahi, G., Rothberg, A., Sannidhi, D. V., Weatherspoon, L., Pauly, K., & Karlsen, M. C. (2022). Dietary Interventions to Treat Type 2 Diabetes in Adults with a Goal of Remission: An Expert Consensus Statement from the American College of Lifestyle Medicine. *American Journal of Lifestyle Medicine*, 16(3), 342–362. <https://doi.org/10.1177/15598276221087624>

US Burden of Disease Collaborators, Mokdad, A. H., Ballestros, K., Echko, M., Glenn, S., Olsen, H. E., Mullany, E., Lee, A., Khan, A. R., Ahmadi, A., Ferrari, A. J., Kasaeian, A., Werdecker, A., Carter, A., Zipkin, B., Sartorius, B., Serdar, B., Sykes, B. L., Troeger, C., ... Murray, C. J. L. (2018). The State of US Health, 1990-2016: Burden of Diseases, Injuries, and Risk Factors Among US States. *JAMA: The Journal of the American Medical Association*, 319(14), 1444–1472. <https://doi.org/10.1001/jama.2018.0158>

Virani, S. S., Newby, L. K., Arnold, S. V., Bittner, V., Brewer, L. C., Demeter, S. H., Dixon, D. L., Fearon, W. F., Hess, B., Johnson, H. M., Kazi, D. S., Kolte, D., Kumbhani, D. J., LoFaso, J., Mahtta, D., Mark, D. B., Minissian, M., Navar, A. M., Patel, A. R., ... Williams, M. S. (2023). 2023 AHA/ACC/ACCP/ASPC/NLA/PCNA Guideline for the Management of Patients With Chronic Coronary Disease: A Report of the American Heart Association/American College of Cardiology Joint Committee on Clinical Practice Guidelines. *Circulation*, 148(9), e9–e119. <https://doi.org/10.1161/CIR.0000000000001168>

References (continued)

Vodovotz, Y., Barnard, N., Hu, F. B., Jakicic, J., Lianov, L., Loveland, D., Buysse, D., Szigethy, E., Finkel, T., Sowa, G., Verschure, P., Williams, K., Sanchez, E., Dysinger, W., Maizes, V., Junker, C., Phillips, E., Katz, D., Drant, S., ... Parkinson, M. D. (2020). Prioritized Research for the Prevention, Treatment, and Reversal of Chronic Disease: Recommendations From the Lifestyle Medicine Research Summit. *Frontiers in Medicine*, 7, 959. <https://doi.org/10.3389/fmed.2020.585744>

Yin, J., Jin, X., Shan, Z., Li, S., Huang, H., Li, P., Peng, X., Peng, Z., Yu, K., Bao, W., Yang, W., Chen, X., & Liu, L. (n.d.). Relationship of Sleep Duration With All-Cause Mortality and Cardiovascular Events: A Systematic Review and Dose-Response Meta-Analysis of Prospective Cohort Studies. *Journal of the American Heart Association*, 6(9), e005947. <https://doi.org/10.1161/JAHA.117.005947>

Wang, C., Bangdiwala, S. I., Rangarajan, S., Lear, S. A., AlHabib, K. F., Mohan, V., Teo, K., Poirier, P., Tse, L. A., Liu, Z., Rosengren, A., Kumar, R., Lopez-Jaramillo, P., Yusuf, K., Monsef, N., Krishnapillai, V., Ismail, N., Seron, P., Dans, A. L., ... Yusuf, S. (2019). Association of estimated sleep duration and naps with mortality and cardiovascular events: a study of 116 632 people from 21 countries. *European Heart Journal*, 40(20), 1620–1629. <https://doi.org/10.1093/eurheartj/ehy695>

Waters, B. Y. H., & Graf, M. (n.d.). The costs of chronic disease in the U.S. Retrieved January 15, 2023, from https://milkeninstitute.org/sites/default/files/reports-pdf/ChronicDiseases-HighRes-FINAL_0_1.pdf

Zhang, Y., & Han, B. (2016). Positive affect and mortality risk in older adults: A meta-analysis. *PsyCh Journal*, 5(2), 125–138. <https://doi.org/10.1002/pchj.129>

Continuing Education Credit Details

- Villanova University M. Louise Fitzpatrick College of Nursing is accredited as a provider of nursing continuing professional development by the American Nurses Credentialing Center's Commission on Accreditation.
- Villanova University M. Louise Fitzpatrick College of Nursing MacDonald Center for Nutrition Education and Research is a Continuing Professional Education (CPE) Accredited Provider with the Commission on Dietetic Registration (CDR). CDR Credentialed Practitioners will receive 1 Continuing Professional Education Unit (CPEU) for completion of this activity.

Continuing Education Credit Details

- This activity has been approved for 1.0 CH or 1.0 CPEU for nurses and dietitians.
- To receive CE credit, you must attend the entire program.
- All nurses must complete an evaluation following the program.
- Level 2
- Suggested CDR Performance Indicators: 8.1.1, 9.6.7, 10.3.4, 10.3.9

To Receive Your CE Certificate

- Look for an email from Villanova MCNER containing a link to an evaluation. The email will be sent to the email address you used to register for the webinar.
If you do not see the evaluation, look in your spam folder.
- Complete the evaluation soon after receiving it. It will expire after 3 weeks.
- Nurses must complete the evaluation before receiving the CE certificate. RDs must at the minimum provide CDR number on evaluation.
- Certificate will be sent to you upon completion of the evaluation.

MCNER Upcoming Events

Webinar Series:

10/4/23 12-1 PM ET. Using Trauma Informed Care When Discussing Weight in Clinical Practice

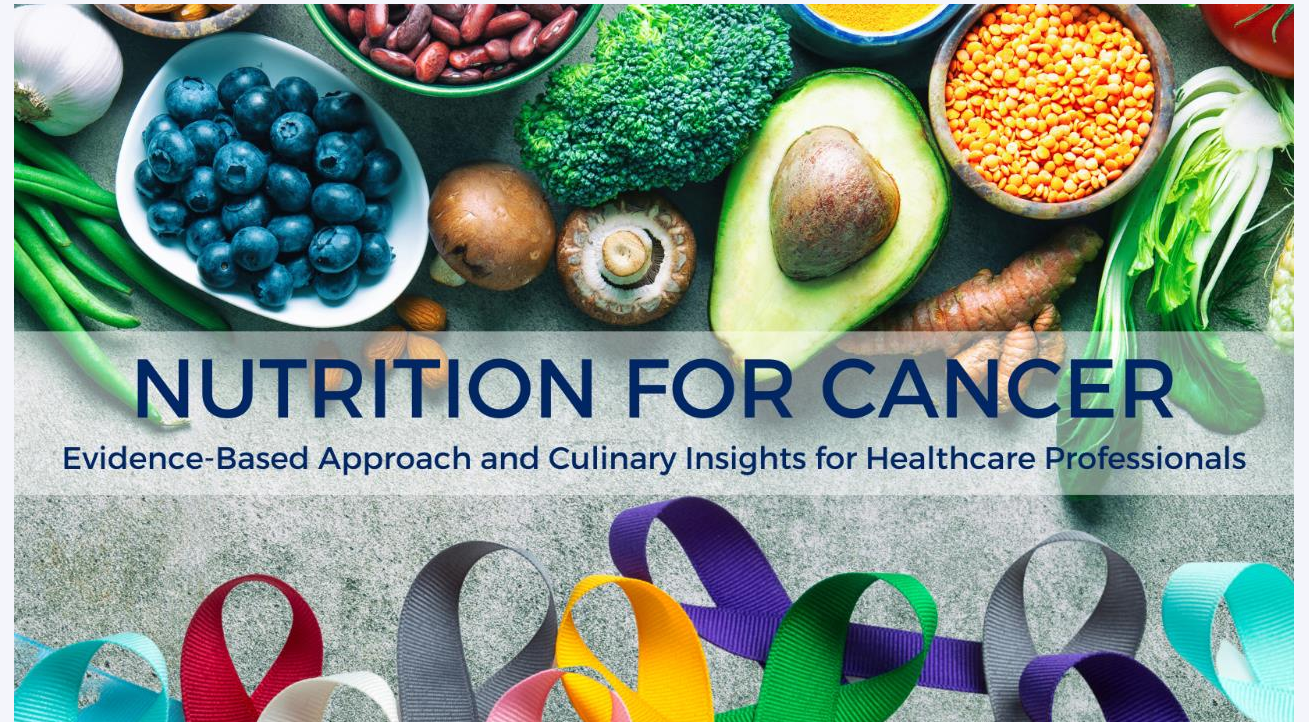
11/15/23. 1-2 PM ET. Understanding the Connection Between Food Insecurity and Diabetes: Implications for Practice

MCNER Upcoming Events

Session 1: Evidence-based Nutritional Care During Cancer Treatment
Wednesday, October 25
5:30-7 PM ET

Session 2: Evidence-based Nutritional Health During Cancer Survivorship
Monday, November 13
5:30-7 PM

To register:
<https://bit.ly/NutritionCancerCare>



Q&A



Moderator:
Lisa Diewald, MS, RDN, LDN
mcner@villanova.edu

⁸⁷
*If you are an RD or RDN and have any questions or concerns about this continuing education activity,
you may contact CDR directly at QualityCPE@eatright.org.*