

A PRESCRIPTION FOR WELLNESS: PEDIATRIC LIFESTYLE MEDICINE IN THE CLINIC AND COMMUNITY



Primary Children's Hospital Pediatric Grand Rounds

March 26, 2026

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**I HAVE NO RELEVANT FINANCIAL RELATIONSHIPS
WITH ANY INELIGIBLE COMPANIES TO DISCLOSE**

Objectives

- 1) Define the specialty of lifestyle medicine
- 2) Understand the six evidence-based pillars of lifestyle medicine and how they work synergistically to address chronic disease in children

- 6 evidence-based, therapeutic lifestyle interventions
- Robust training in MI and positive psychology
- Patient and family centered approach
- Culturally responsive
- Health Equity in Lifestyle Medicine



Kaiser Permanente Launches Pediatric Lifestyle Medicine Program

October 13, 2025



Welcome to the **Rica Salud "Rich Health"** Club!

"It is health that is real wealth and not pieces of gold and silver." Mahatma Gandhi

Raising Healthy Hearts

Our goal is to help children and families who are facing challenges and health conditions related to weight or abnormal cholesterol levels or who have a family history of heart disease.

THE TEEN LIFESTYLE MEDICINE HANDBOOK

The Power of Healthy Living



BETH FRATES, MD
BRITTANY PLAVEN, PhD

BETH WATTS, MD
NEETA B. AGARWAL, MD

MICHELLE DALAL, MD
KATLYN TOLLEFSON

The
**tiny
beet**
LIFESTYLE MEDICINE
PEDIATRICS



Lifestyle Medicine Approach to Pediatric Subspecialty Care


HoneyBee
PEDIATRICS



Collaboration across the
lifespan to improve our
health span



ACLM BUILDING CAPACITY TO ADDRESS CHRONIC DISEASE^{1,2}



Chronic Disease Burden in Children³⁻⁴

The prevalence of pediatric chronic disease has risen to nearly 30% in the past 20 years

25 million 5-25 yr olds live with chronic disease

The top 3 chronic disease in childhood:
Asthma 7%, ADHD 10.8% and Obesity 21.1%

DIETARY SPECTRUM



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.

WHOLE FOOD PLANT-BASED EATING PLAN

1. Whole Food, Plant-Predominant Nutrition

“SAD”

WHAT AMERICA EATS



*Food items are not to scale

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

Poor nutrition is the leading cause of death globally.

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

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



*Food items are not to scale

ADD HERBS & SPICES

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

Chronic disease treatment and potential reversal



TIPS FOR IMPROVED NUTRITION AND HEALTH

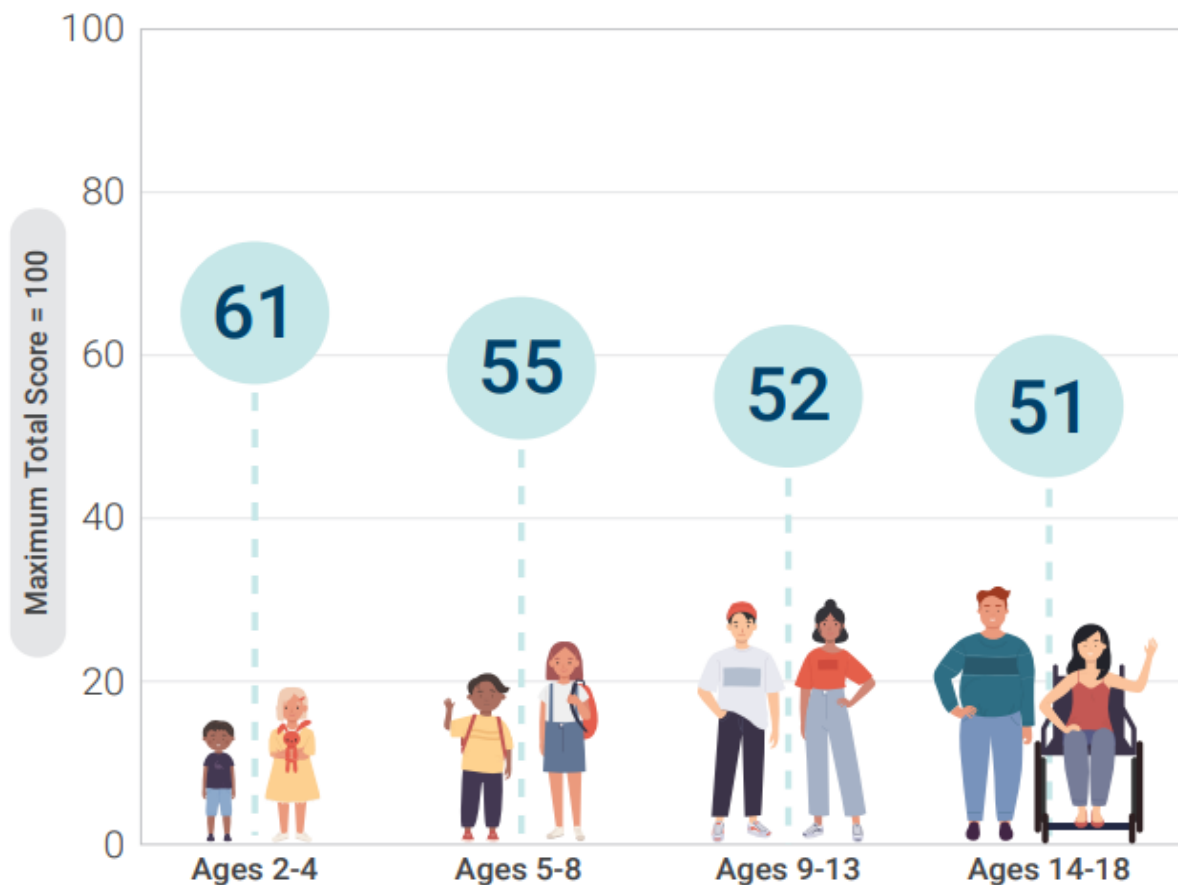
- Any movement toward WFPB eating is positive
- More movement toward a WFPB eating plan increases impact
- Tailored and sustainable approaches are recommended

What We Eat in America (WWEIA) Food Category analyses for the 2015 Dietary Guidelines Advisory Committee. Estimates based on day 1 dietary recalls from WWEIA, NHANES 2009-2010.

Tuso PJ, Ismail MH, Ha BP, Bartolotto C. Nutritional update for physicians: plant-based diets. Perm J. 2013;17(2):61-66.

Food Planet Health. Eatforum.org. Published 2020. Accessed June 4, 2020

Healthy Eating Index Scores Across Childhood and Adolescence



Data Source: Analysis of What We Eat in America, NHANES 2015-2016, ages 2 through 18, day 1 dietary intake, weighted.

— Dietary Guidelines for Americans, 2020-2025



Figure 1-6

Dietary Intakes Compared to Recommendations: Percent of the U.S. Population Ages 1 and Older Who Are Below and At or Above Each Dietary Goal



***NOTE:** Recommended daily intake of whole grains is to be at least half of total grain consumption, and the limit for refined grains is to be no more than half of total grain consumption.

Data Source: Analysis of What We Eat in America, NHANES 2013-2016, ages 1 and older, 2 days dietary intake data, weighted. *Recommended Intake Ranges:* Healthy U.S.-Style Dietary Patterns (see [Appendix 3](#)).

Nutrition and Prevention⁵⁻⁷

Weight Management

Metabolic Health

Cardiovascular Disease

Mental Health and Cognitive Function – MIND diet, Finish study in Pediatrics

Certain types of cancer – Unhealthy diet is linked to 38% of colorectal cancers*, liver, pancreas, post-menopausal breast, mouth, esophageal, throat. 2025 GCRU metanalysis confirmed that EOCRC is causally linked with elevated BMI in childhood.



Nutrition Strategies in the Clinic

- Trauma-informed food/nutrition security screening and education
- Address the fiber gap
- Support cultural heritage eating patterns
- Equipoise “With what?” “Instead of what?”
- Provide parenting resources
 - Parenting classes, Ellyn Satter: Division of Responsibility, Dr Yum Project





dr.yumproject

super soup maker

Make a hearty soup in your favorite style with the ingredients you have on hand. Soup is fast, easy and forgiving, and everyone will be asking for more!

choose a style

BASIC SOUP

MEXICAN

THAI

CURRY

Choose your ingredients below to make 6-8 servings.

soup base

The Basic soup base includes olive oil, onion, garlic, carrots, and celery.

protein

Choose One



LENTILS



BEANS



PORK



BEEF



CHICKEN



ROTISSERIE CHICKEN



SAUSAGE

Nutrition Community Resources



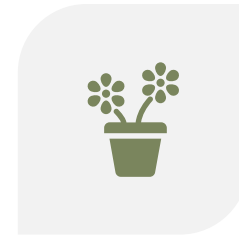
**MENTAL HEALTH
SERVICES**



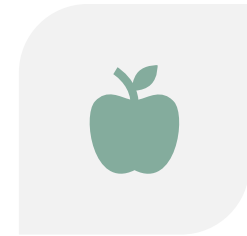
**SNAP, WIC
FOOD NAVIGATING**



**CULINARY
MEDICINE
PROGRAMS**



**COMMUNITY
GARDENS**



**SCHOOL NUTRITION
SYSTEMS**

2. Physical Activity

Only 1 in 4 school age children and adolescents in the US meet recommendations⁸

Family-based interventions^{9,10}

Accumulated daily PA can be just as beneficial as continuous.¹¹



Reducing Sedentary Time and Screen Time

FITT SCRIPT (PA or Play)

Frequency, Intensity, Time, Type

Promote Preschool Play

3 hrs/day (structured and unstructured)

Not sedentary for > 1 hour unless sleeping

Time in Nature – 93% of time spent indoors!



Measuring Physical Activity Intensity | Physical Activity | CDC. (2022, June 3). <https://www.cdc.gov/physicalactivity/basics/measuring/index.html>

Physical Activity Community Resources

- Recommend affordable after-school programming with PA
- Indoors Ideas (free apps, exergaming, active play)
- Provide list of local parks and play spaces by zipcode
- Physical therapy



3. Sleep

More than just a good feeling!

Inadequate sleep is strongly associated with increased risk of obesity in all age groups.¹²⁻¹⁴

Adolescent depression is associated with inadequate sleep, disruption of sleep patterns and irregular sleep wake cycles.¹⁵



Sleepscription

School age children need 9 to 12 hours of sleep per day.

(Example 9 pm to 6 am or 8 pm to 8 am)

Sleep helps your body and mind grow strong!

Directions: Keep track of how many hours you sleep for one week.

Name: _____ Week: _____

Day of Week	Number of Hours I Slept
Sunday	_____
Monday	_____
Tuesday	_____
Wednesday	_____
Thursday	_____
Friday	_____
Saturday	_____

Credit: Michelle Dalal, MD, FAAP and Neeta Agarwal, MD, FAAP
Recommended for use with school age children.

Were you able to sleep for 9 to 12 hours every night?

If yes, HIGH FIVE!!

If no, choose one thing you could do to improve your sleep:

- Turn off all screens at least one hour before bedtime.
- Keep your bedtime and the time you wake up the same every day.
- Keep active and exercise or play for one hour everyday during daylight hours.
- Keep screens out of the bedroom - Make your bedroom calm, cool, quiet and dark.
- Cut out caffeine, including soda, coffee/tea, and energy drinks.
- _____

Sleep Strategies

Environmental Risk Reduction

CBT –I (Free)

CBT-I Coach: Teens and Adults.

Sleep Ninja: Ages 10-Adolescents

‘Social Jet Lag’- circadian rhythm

‘Screen Curfew’ - Deep Sleep  25%



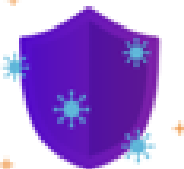
Nervous System

cognitive impairment,
self-regulation, memory
and attention problems,
anxiety, depression



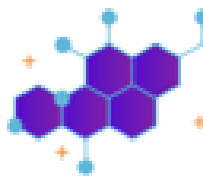
Cardiovascular System

high blood pressure,
heart disease, stroke



Immune System

autoimmune disease,
asthma,
recurrent infections



Endocrine System

Obesity, metabolic
disorder

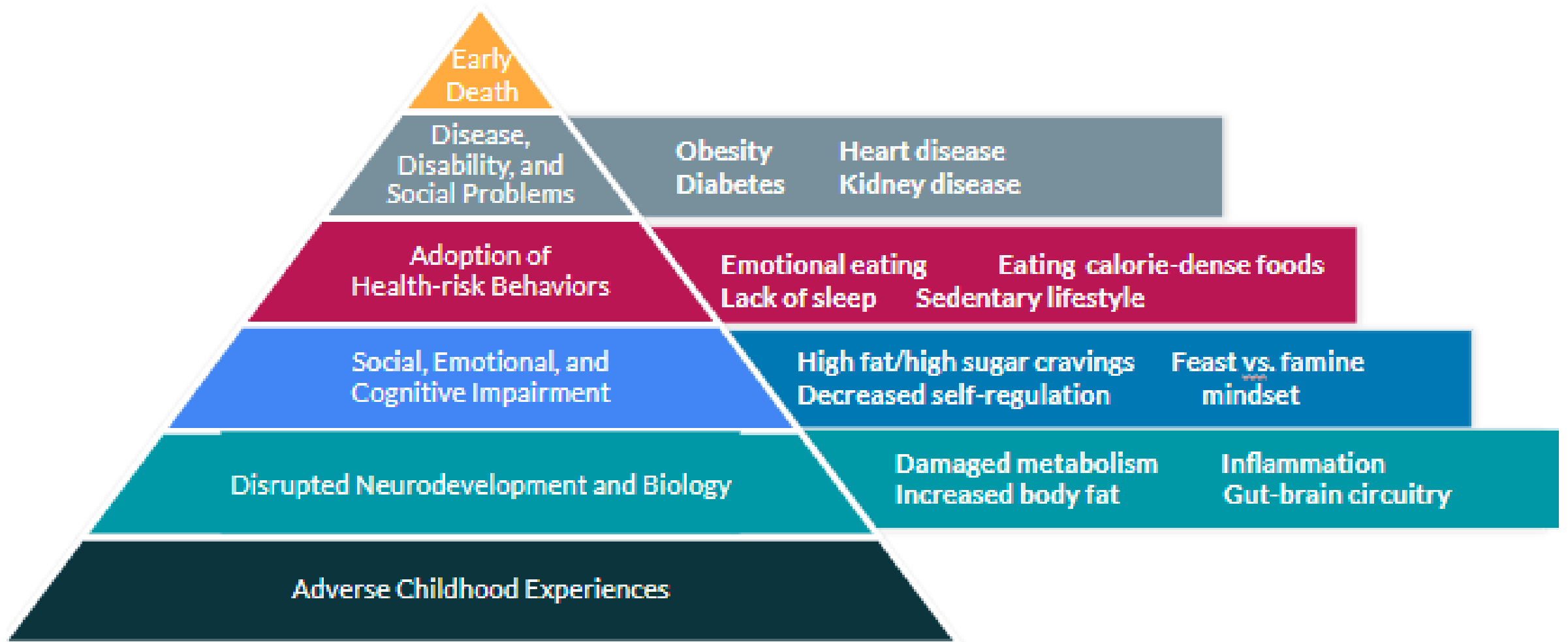
4. Stress Management

Stress impacts all other lifestyle domains

50-80% of illness has a stress-related component

Toxic stress

75% of HS students report at least 1 ACE



Stress Management Strategies and Resources



MENTAL HEALTH
REFERRALS, SCHOOL
BASED HEALTH



FREE CBT-BASED APPS
EX: MINDSHIFT. BREATHE,
THINK, DO WITH SESAME



AAP, ACLM 0-5 AND ADOL
MENTAL HEALTH TOOLKITS



SOCIAL PRESCRIBING
EARLY RELATIONAL
HEALTH



5. Social Connection

Social connection is the single most important predictor of happiness and longevity.^{16,17}

2023 Surgeon General Report "*Our Epidemic of Loneliness and Isolation*"

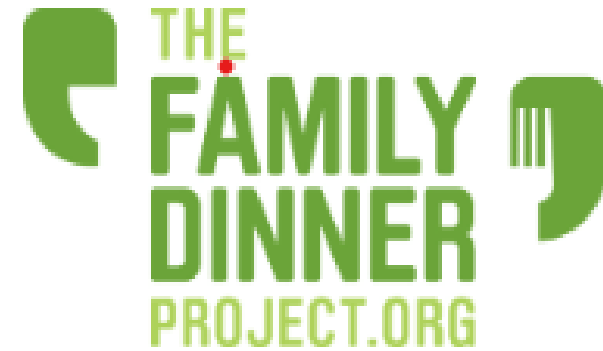
Increased risk of CVD, dementia, stroke, depression, anxiety and premature death.

mortality impact = 15 cigarettes/day!

In teens social isolation increases the risk of inflammation by the same magnitude as physical inactivity.^{18,19}

Social Connection Strategies

- **Ask**
- **Counseling**
- **Social prescribing**
- **Family mealtimes^{20,21}**
Associated with improved academic performance, resilience and self-esteem, lower rates of substance abuse, teen pregnancy, eating disorders and depression





6. Avoiding Risky Substances

- 2015-2019: 2 million children lived with a parent who had SUD²²
- 15% of high school students report having ever used select illicit or injection drugs.²³
- Disparities exist in both screening and access to treatment for racial/ethnic minority youth.²⁴
- **Lifestyle is underutilized in SUD treatment. Lifestyle interventions influence epigenetic and neuroplastic changes in those with SUD.**²⁵



The Synergy of Lifestyle Interventions

Rosa is a 15-year-old girl here for her WCC. Her last check up was 3 years ago. Her caregiver's primary concern is Rosa's mental health.

Data: BMI increased from the 75thile to now 120% of the 95thile. They are assessed as "pre-contemplative" stage of change regarding the obesity. PHQ-9 is moderately elevated.

Exam Findings: Flat-affect, acanthosis nigricans, elevated BP, recently healed linear scars on her forearms

Regarding depression, evidence-based lifestyle interventions can be utilized:

- ✓ As part of a comprehensive plan that includes medication and therapy
- ✓ Independently for those who would benefit from meds and therapy but are not ready
- ✓ Independently for patients with mild-moderate depression. ²⁶



Our LM Approach to Pediatric Obesity



IMPROVE
QUALITY AND
CONSISTENCY



OPTIMIZE
READINESS
AND MI



UTILIZE ALL 6
LIFESTYLE
PILLARS



Welcome to the **Rica Salud "Rich Health" Club!**

"It is health that is real wealth and not pieces of gold and silver." Mahatma Gandhi

We want to support your healthiest life! Join us for 7 months of coaching and support at the Center for Pediatric Medicine.

Sample Schedule (Combination of in-person and telehealth appointments)

Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7
Physician Intake	Registered Dietician	Registered Dietician	Physician	Registered Dietician	Registered Dietician	Maintenance Planning With Physician

- ✦ Eat foods that treat and prevent illness
- ✦ Learn to read labels and plan healthy meals
- ✦ Move more for your brain and body
- ✦ Reduce Stress
- ✦ Sleep Well
- ✦ Connect with your community



LIFESTYLE MEDICINE

Lifestyle medicine is an evidence-based approach to preventing, treating and even reversing diseases by replacing unhealthy behaviors with positive ones — such as eating healthfully, being physically active, managing stress, avoiding risky substance abuse, adequate sleep and having a strong support system.



Weight-Neutral Approach³⁰⁻³¹

Do no harm

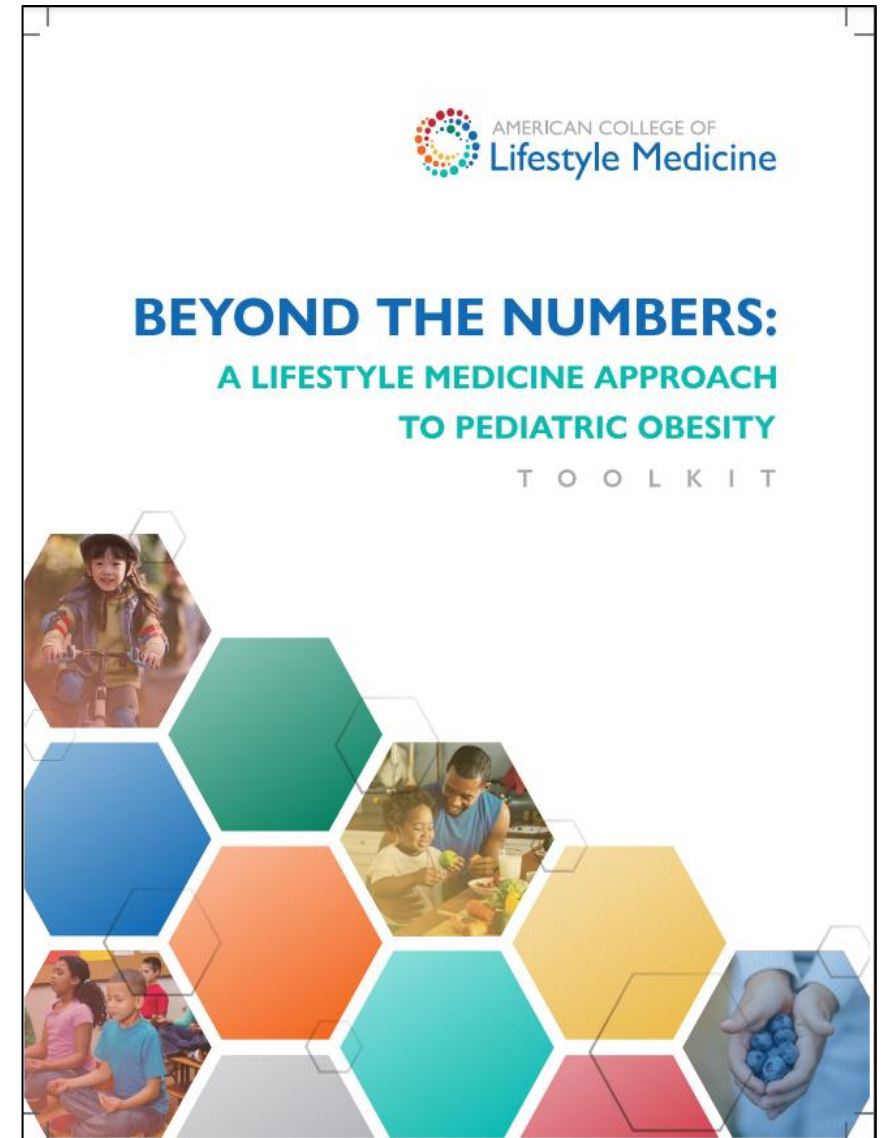
respectful terminology, recognize stigma,
screen for disordered eating

Whole child/family approach

intake visit with comprehensive screeners
family involvement

Reframing

abundance not restriction, habits not
numbers, marathon not a sprint



ACLM Toolkit "Beyond the Numbers: A Lifestyle Medicine Approach to Pediatric Obesity." 2023

Statewide Learning Collaborative

- Started 2024
- Focus: Healthy Lifestyles and Metabolic Syndrome
- Collaboration between the Boeing Center for Child Wellness at MUSC and the SC AAP Healthy Lifestyles Subcommittee
- Quarterly, Virtual, CME. Every county participating!



Lifestyle Medicine in Our Community



Who We Are ▾ Our Work ▾ Resources ▾ Learn More ▾

DONATE



Because everyone deserves the chance to live a healthy, connected life

We believe health shouldn't depend on your ZIP code.

LiveWell Greenville is a trusted backbone organization, working for nearly 15 years to build a stronger, more connected Greenville County.

We're shifting the conditions that shape health—through collaborative partnerships, stronger systems, and smarter policies.

After School Programs
Children's Museum
Summer Programs

Clemson University
Furman University
USC SOM Greenville



About Us ▾ What We Do ▾ Get Involved ▾ News

A World Where All Neighborhoods, People, and Nature Thrive.

Sustaining Way uses education, collaboration, and advocacy to create sustainable, caring, and equitable communities for current and future generations.

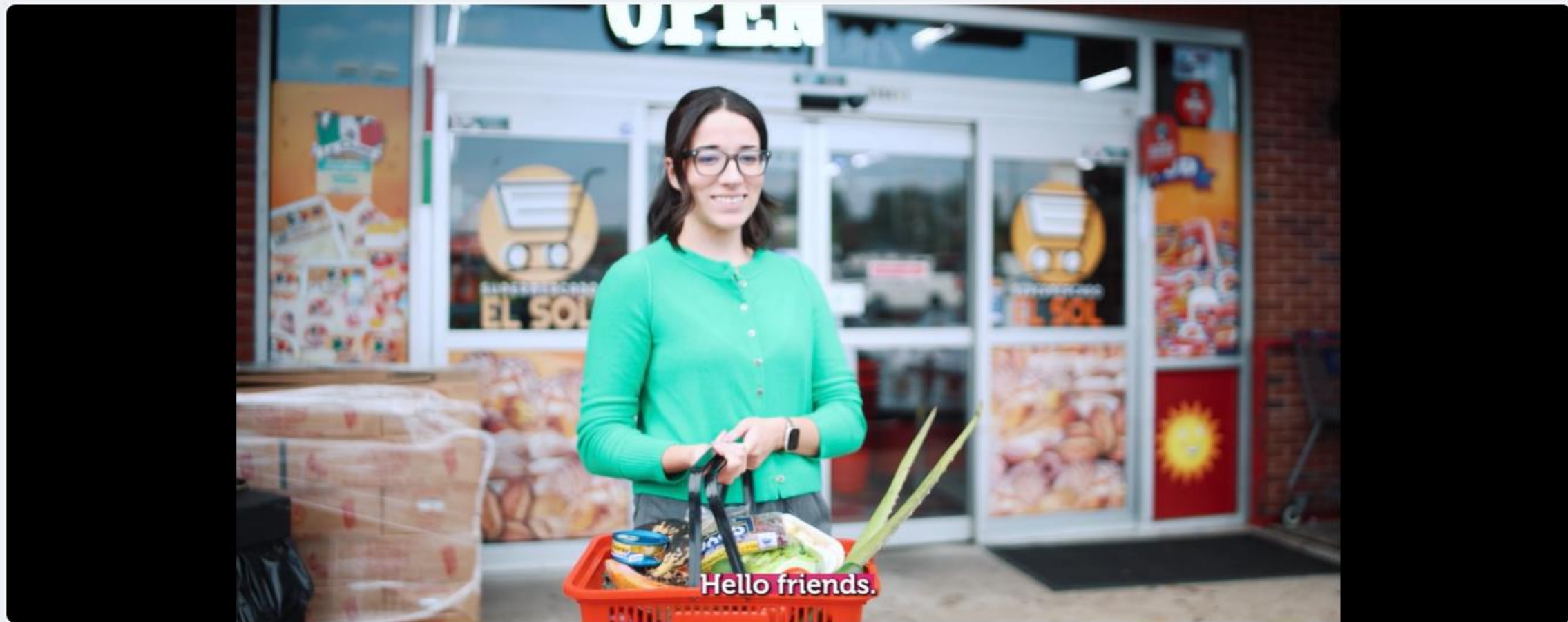
GARDEN & FOOD EDUCATION FOODSHARE YOUTH



MILL VILLAGE — FARMS —

GROW FOOD. NOURISH PEOPLE.

2025 NASPHGAN Grant: Addressing MASLD in our Hispanic Community



Hello friends.



0:06 / 13:32



1x

Auto



“Good Vibes, Health Lives”

Community Curriculum for School-Aged Children and Families



**Lesson 1 -
Screen
Time:**
Power Up to
Power Down



**Lesson 2 -
Worry
Happens:**
Tackle it with
a Toolkit



**Lesson 3 -
Mission
Move:**
Train Like a
Secret Agent



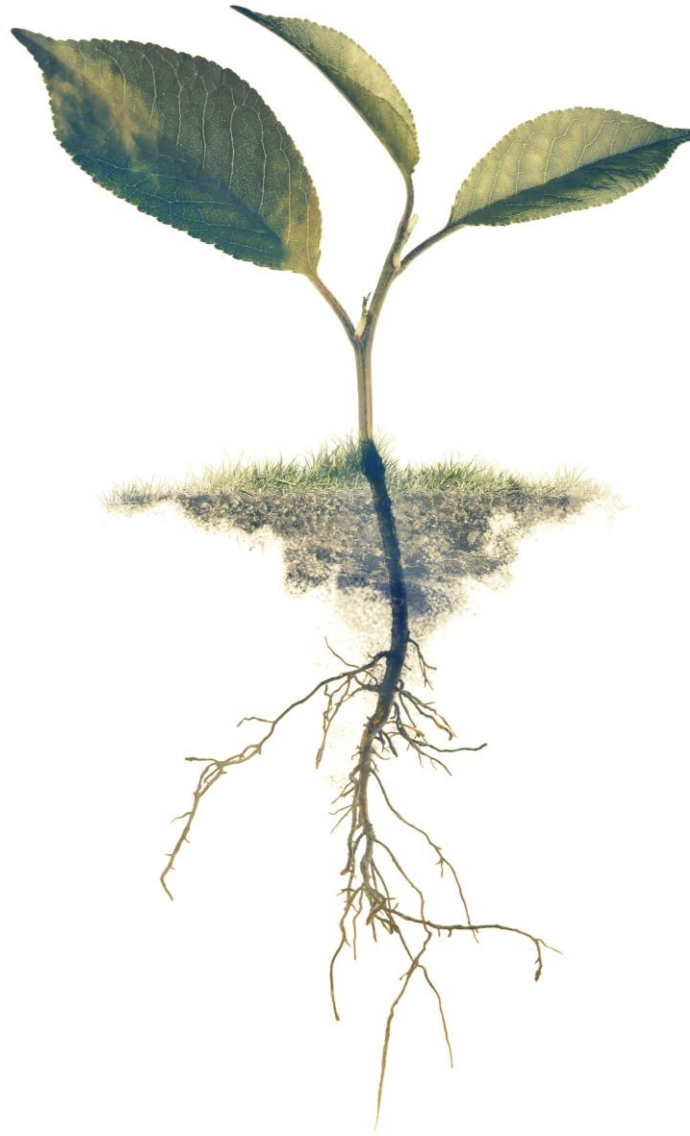
**Lesson 4 -
Smart Cart:
Nutrition
Ninjas Unite**



**Lesson 5 -
Dreamland
Express:**
The Ticket to
Good Sleep



**Lesson 6 -
Connection
Quest:**
The Power
of Teamwork



“Awareness can breed despair
but
action brings hope.”

Thank you!

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