



FROM ROOTS TO SHOOTS: CULTIVATING LIFESTYLE AS MEDICINE IN YOUR PRACTICE

QTIP Learning Collaborative

August 1, 2026

Erin Brackbill, MD, FAAP, dipABLM, FACLM

Associate Professor of Pediatrics

University of South Carolina SOM Greenville

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

Objectives

- 1) Define the specialty of lifestyle medicine
- 2) Understand the importance of six evidence-based lifestyle interventions for preventing and treating common chronic diseases in children
- 3) Behavior Change Basics with Group Activities

Lifestyle Medicine is a medical specialty that uses therapeutic lifestyle interventions to prevent, manage and treat the ROOT CAUSES of chronic conditions. CPGs for most chronic disease.

- 6 high-quality, evidence-based therapeutic interventions
- Comprehensive approach that is patient and family centered
- Skillful prescribing of lifestyle using behavior change counseling



Addressing Health Disparities: The Patient-Centered Medical Home



Goal: The clinic acts as a "hub" for screening and connection to community programs^{1,2}



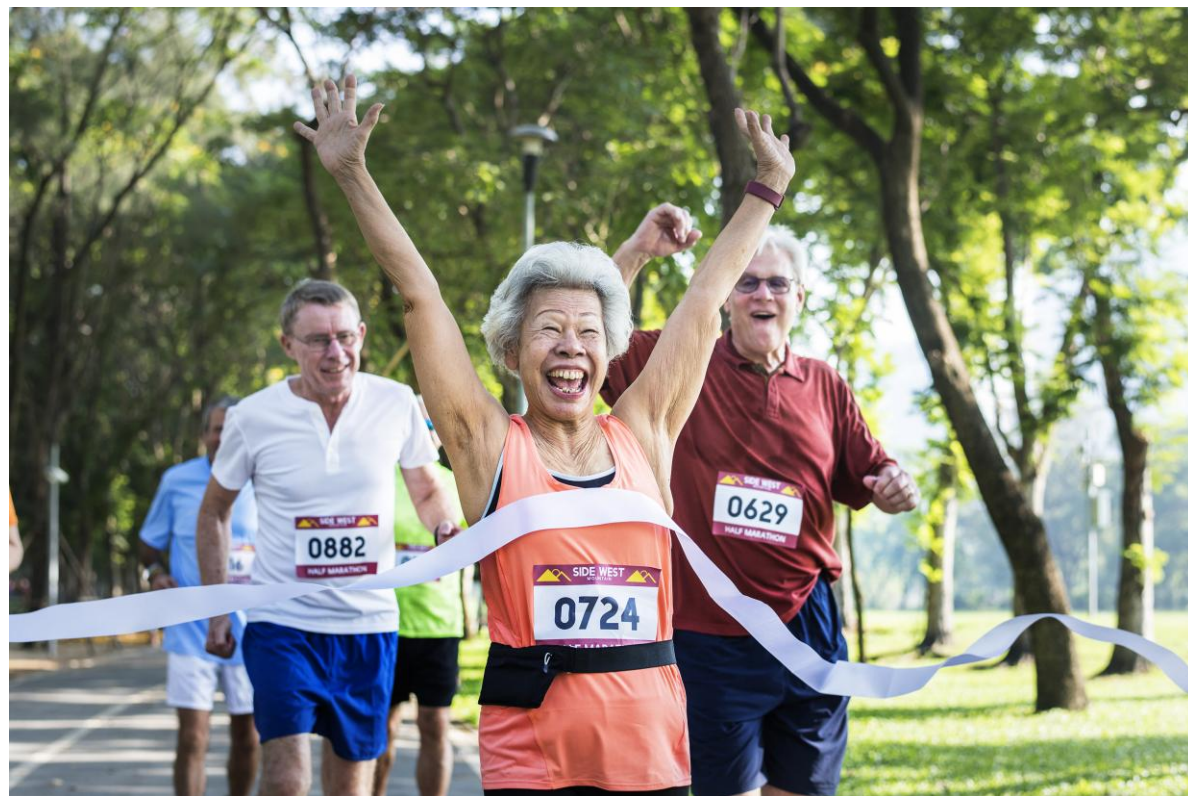
System Integration: Coordinating with community resources inside and outside the clinic walls



Cross-Sector Partnerships



Collaboration across the lifespan



ACLM Building Capacity to Address Chronic Disease^{3,4}



Chronic Disease Burden in Children^{5,6}

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: Obesity 21.1%, ADHD 10.8% and Asthma 7%

Mental Health Crisis: Nearly 1 in 5 children ages 3 to 17 (21%) are diagnosed with a mental, emotional, or behavioral health condition

This high chronic disease burden BEGS for us to change how we think about lifestyle

Starting at birth (and in pregnancy)

Not just for prevention and management of obesity

Consider lifestyle interventions early and often

One healthy habit builds on another



6 PILLARS: THE IMPORTANCE OF LIFESTYLE INTERVENTION

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

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

1. Whole Food, Plant-Predominant Nutrition

Nutrition and Chronic Disease⁷⁻⁹

Weight Management

Co-occurring Metabolic Conditions of Obesity

Cardiovascular Disease

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

Certain types of cancer – 2025 large metanalysis and systemic review confirmed that EOCRC is **causally linked** with elevated BMI in childhood. *

Unhealthy diet is linked to 38% of colorectal cancers, liver, pancreas, post-menopausal breast, mouth, esophageal, throat.

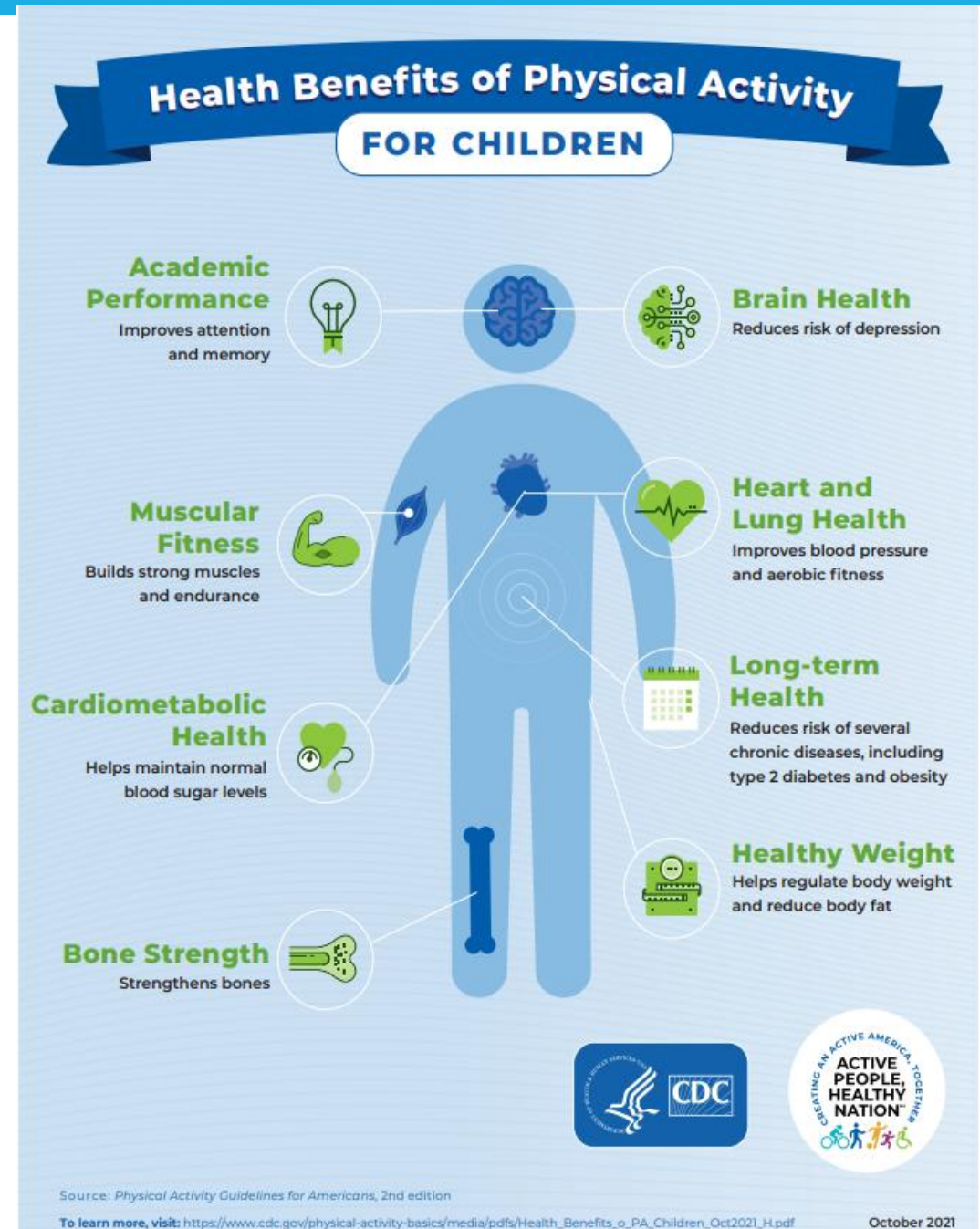


2. Physical Activity and Decreasing Sedentary Time

Only 1 in 4 school age children and adolescents in the US meet recommendations for physical activity¹⁰

Activity levels are lowest among

- Adolescent girls
- Children w special health care needs
- Racial/ethnic minorities





ANY amount of ANY activity is better than none

Soleus pushup anyone?

Exercise truly IS medicine: *How can we help our families increase activity in a way that works for them?*



3. Sleep: more than just a good feeling!

Inadequate sleep is strongly associated with:

- Increased risk of obesity in all age groups.¹¹⁻¹³
- Hypertension and nearly every metabolic marker of health.
- Adolescent depression.¹⁴



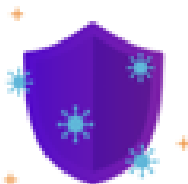
Nervous System

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



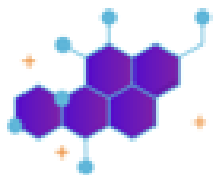
Cardiovascular System

high blood pressure,
heart disease, stroke



Immune System

autoimmune disease,
asthma,
recurrent infections



Endocrine System

Obesity, metabolic
disorder

4. Stress Management

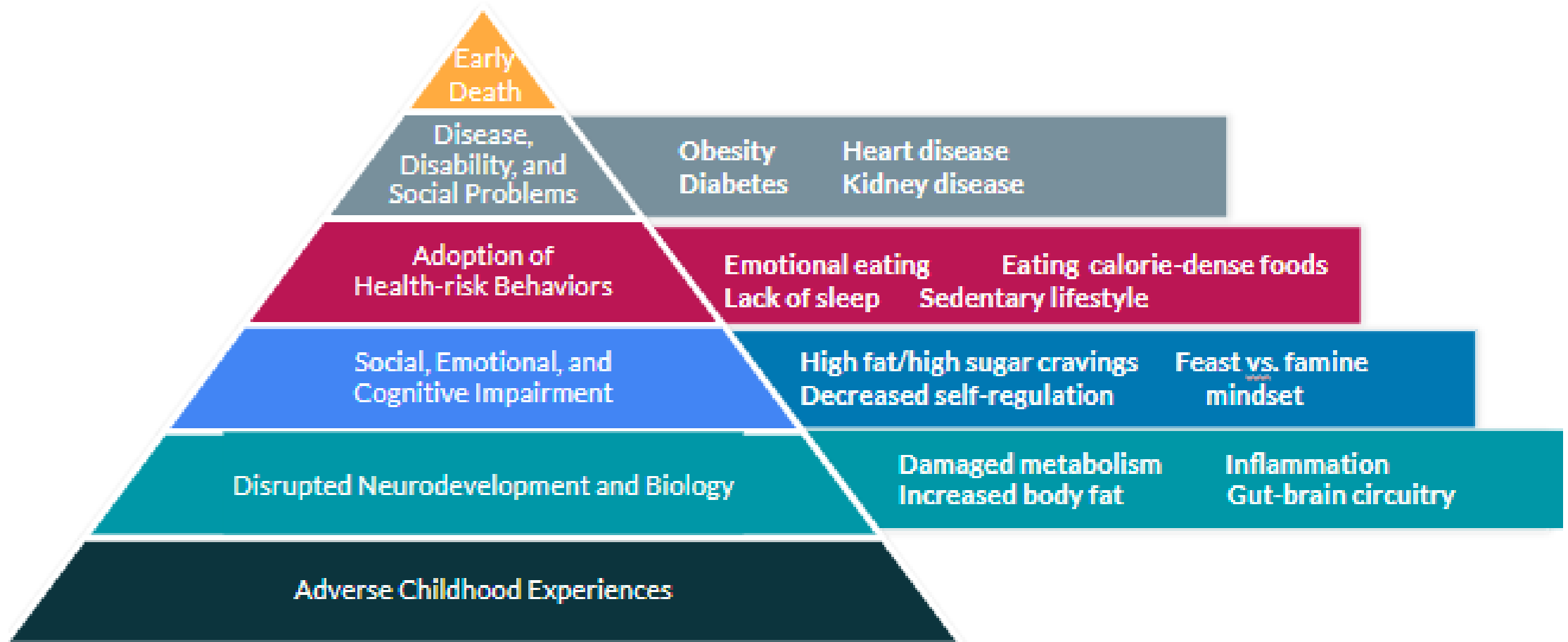
Stress impacts all other lifestyle domains

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

Research shows health and development are negatively impacted by **toxic stress**

75% of HS students report at least 1 ACE

The Biology of Chronic Disease in Poverty and Toxic Stress





5. Social Connection

Social connection is the single most important predictor of happiness and longevity.^{15,16}

2023 Surgeon General Report “Our Epidemic of Loneliness and Isolation”

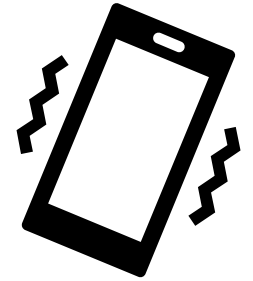
In teens, social isolation increases the risk of inflammation by the same magnitude as physical inactivity.^{17,18}

6. Avoiding Risky Habits

Substance Use Disorder (SUD): 15% of high school students report having ever used select illicit or injection drugs.¹⁹

Lifestyle interventions influence epigenetic and neuroplastic changes in those with SUD²⁰

Screentime ALSO ties into EVERY pillar



“7th unofficial”: Time in Nature

Americans spend 93% of our time indoors !

Benefits of outdoor time include:

- Nutrition through gardening
- Improves microbiome
- Beneficial for mental health , decreases cortisol levels
- Increases physical activity
- Improves sleep (recc 15 mins in AM)
- Role in decreasing development of myopia (Cochrane review 2024)





Lifestyle Medicine Summary

Lifestyle Medicine is a LENS to notice and address root causes

Lifestyle Medicine provides skilled counseling and prescribing for health behavior change

Start with what is important to the family

One healthy habit often builds on another

The same healthy habits address multiple conditions



Pediatric Healthy Lifestyles and Metabolic Syndrome Learning Collaborative



**Topic: Sleep, Hormones,
and Obesity**



Thursday, September 17th



12:15 pm EST



Scan the QR code
to register for
the September 17th
Session!

**CMEs and CEUs
available!**

South Carolina Chapter

INCORPORATED IN SOUTH CAROLINA

American Academy of Pediatrics
DEDICATED TO THE HEALTH OF ALL CHILDREN®



An independent licensee of the Blue Cross Blue Shield Association.



- Started in 2024.
- Collaboration between the Boeing Center for Child Wellness at MUSC and the SC AAP Healthy Lifestyles Subcommittee
- Free, offers 1.0 CME/CEU
- PLEASE JOIN US!

COUNSELING BEHAVIOR CHANGE

Part 2

Change Game

Participate with your table group

Here's your advice: *Today and tomorrow, I want each of you to hop on the treadmill for 30 minutes.*

- 1) What was your emotional response when you heard this goal?
- 2) What came to your mind about how you would accomplish this?
What are potential barriers?
- 3) If you wanted to add to your health today and tomorrow, what pillar would you choose and why?
- 4) Have you ever had well-intentioned, but unwelcome, advice offered to you?

*“People are generally better persuaded by the reasons
which they have themselves discovered, than by those
which have come into the minds of others.”*

Blaise Pascal (1600s)

Motivational Interviewing

Developed in the '80s - evidence-based supportive counseling style that is empathetic, supportive, flexible, and affirming.

Designed to help patients resolve their own ambivalence and strengthen their own reasons for change to support self-efficacy.

MI is evidence-based for vaccine hesitancy, sexual health, substance use disorder and lifestyle counseling with parents of young children and adolescents

MI Framework

ENGAGE the family – listen, gather information

FOCUS on a part of the problem - collaboratively set the agenda

*EVOKE reasons for change - *remember that the most important predictor of change is a pt discovering their OWN motivation and path*

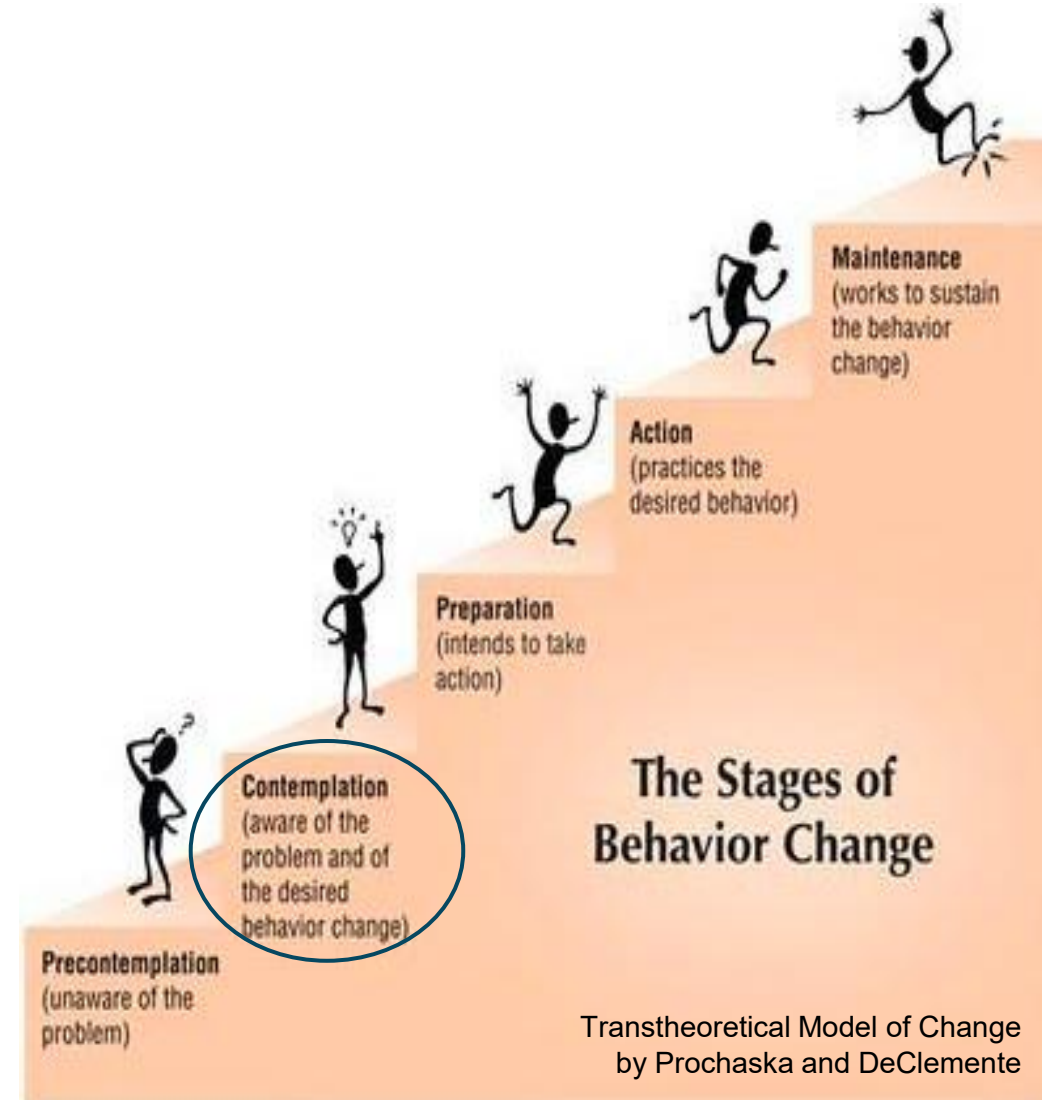
ASSESS readiness to change

“Meet Patients Where They Are”



Transtheoretical Model of Change
Prochaska & DiClemente

Image reference: <http://www.nobcanl/e-magazine/1339353455045/1339364504604>



Transtheoretical Model of Change
by Prochaska and DeClemente

Motivational Interviewing Quick Reference Sheet

On a scale from 0 to 10, how ready are you to _____ [behavior change]?



Building Relationships

Reflective listening to demonstrate understanding and acceptance
Affirmations to appreciate the patient

Reflect Resistance/ Demonstrate Acceptance

- It sounds like you are not ready to _____.
- This is pretty overwhelming

Affirm

- You are a thoughtful person.
- You want to consider all your options.

Explore reasons

- What would it take for you to move from X to X+1?

Provide information or advice with permission

- What do you already know about starting [BEHAVIOR]?
- May I give you some additional information about [BEHAVIOR]?
- May I tell you what some other people in your situation have done?
- What do you make of that?
- (or)
- Where does that leave you?

Do no harm

- That is, don't push so much you trigger resistance.
- End on a good note.
- Ask for permission to revisit at another meeting.

Building Relationships

Reflective listening to demonstrate understanding and acceptance
Affirmations to appreciate the patient

Elicit Motivation, Explore Ambivalence

- Why are you at X and not at 9 or 10?
- Tell me more. Reflect, reflect, summarize.
- What would need to happen for you to get from X to X+1?
- Tell me more. Reflect, reflect, summarize.
- If you decided to change, how confident are you that you would succeed?
- On a scale from 0 to 10, what number would you give yourself?

Strategic open questions

- What are the good things (or advantages) of not starting [BEHAVIOR] right now? Reflect, reflect, summarize.
- What are the not so good things about not starting [BEHAVIOR] right now? Reflect, reflect, summarize.
- Summarize both sides (On one hand..., On the other hand...)
- Where does this leave you?

Moving toward action with key question

- Summarize both sides focusing on change talk. Ask a key question: Where does this leave you now? What is the next step? What, if anything, are you willing to do at this point?

If they cannot come up with anything, you may ask permission to give advice

- Give menu of options (include status quo). Have them choose; "no change" should be an option.

Do no harm

- That is, don't push so much you trigger resistance. End on a good note. Ask for permission to revisit at another meeting.

Building Relationships

Reflective listening to demonstrate understanding and acceptance
Affirmations to appreciate the patient

Action Planning: SMART Goals

- **Specific:** What are you going to do? What would it look like?
- **Measurable:** How often? How much?
- **Attainable:** How confident are you that you can do this? What could help?
- **Realistic:** What barriers might make this tough? What can you do?
- **Timely:** What day and time of day are you going to do this?





- Rather than defending the need for change, we **roll with the resistance**
 - Acknowledge the patient's perspective and accept where they are
 - Switch to what IS important to them.
 - Build rapport and keep the door open for discussion



When you start to hear change talk, use core MI skills like **OARS** or **MI ruler** to amplify these positive statements and keep the change talk going!

Amplify Change Talk with OARS

Open Questions: “Tell me more” “What might this look like for you?”

Affirmations: Validate strengths to encourage self-efficacy and open-minded thinking

Reflective Listening: Simple or Double-Sided

Simple: *“Your schedule is very busy and this makes it hard for you to fit in exercise.”*

Double-Sided: *“On the one hand, (reason against change) your schedule makes it hard to fit in exercise **AND** on the other hand, (reason for change) you felt better in the past when you walked with friends in the AM”.*

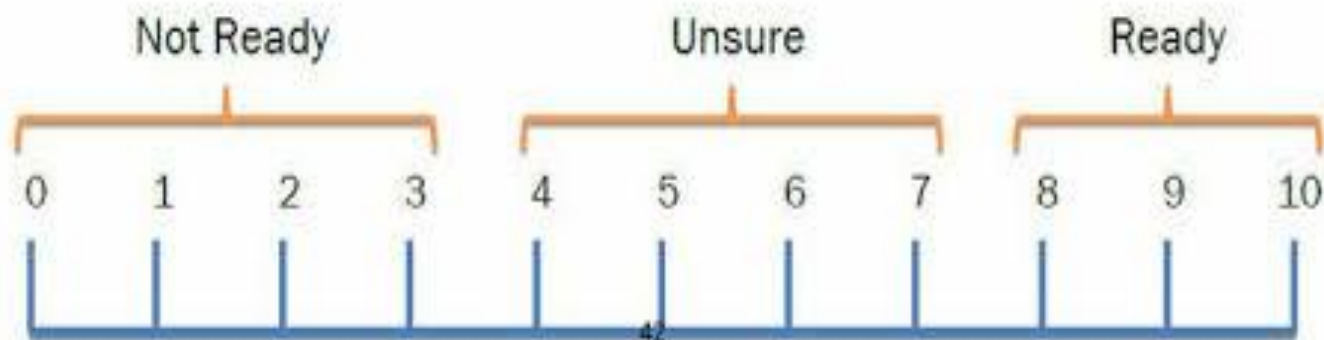
Summarizing: Binding the change-talk together and “handing it back” to the patient

Amplify change talk with an MI Ruler

"On a scale 0-10, how ready do you feel to make this change in your life?"

"What would it take to get you from a 3 to a 5?"

"Why a 5 and not a 3?"



16-Year-Old Alex

You are talking to Alex: “To help your headaches, I recommend turning off screens an hour before bed-time so you get better sleep.”

Alex responds: When I lose my phone privileges, I end up sleeping better and my headaches aren't as often, but playing video games at night helps me relax. I can't give that up.

You: Try using a **double-sided reflection**

Double-Sided: “One the one hand (reason against change) AND on the other hand (reason for change).

Continued ...

Alex responds to your double-sided reflection: Exactly. It's a trade off. I am sick of having these headaches and falling asleep at school, but I love playing games at night because it helps me chill out after school.

You: To keep him in the Green Chair, try an **open-ended question** to explore what a reduced-screen night would look like.

Open Ended Question: Show curiosity. Not a "Yes/No" or one word answer.

Wrapping Up ...

Alex responds : "I haven't really thought about that. I used to like reading before bed and that usually made me tired. I guess I could try picking up a book again. Maybe I could start my games a little earlier."

You: Reinforce this Green Chair momentum, use an **affirmation** of his creativity or reflection on past success.

Affirmation: Be as specific as possible

You: Now summarize the change talk

Summarize: Gather up the "change talk" you heard and any solutions they offered and hand back to them. *"Did I get everything?"*



Summary: MI Techniques

Put the patient/family in the driver's seat

Listen for change talk and readiness

“Roll with resistance” when precontemplative

Amplify change-talk using OARS, MI Ruler

Want to Learn More?

Any Resources by
Miller and Rollnick



ChangeTalk

Change Talk is a simulation where you learn motivational interviewing (MI) techniques and then practice them in simulated conversations with virtual parents and children. In these conversations, you play the role of a healthcare professional and... [Show All](#)

FOR **Healthcare professionals in pediatric settings**

LENGTH **3 episodes, 12 min each**



IN BRIEF

Motivational Interviewing: A Tool for Pediatricians

Nitin Vidyasagar, BS,¹ Karen Bernstein, MD, MPH,² Maria Alcocer Alkureishi, MD²

¹Pritzker School of Medicine, The University of Chicago, Chicago, Illinois

²Section of Academic Pediatrics, Department of Pediatrics, The University of Chicago, Chicago, Illinois

Thank you!

Erin Brackbill, MD, FAAP, dipABLM, FACLM

Erin.Brackbill@prismahealth.org



References

1. Russ, S. A., Hotez, E., Berghaus, M., Verbiest, S., Hoover, C., Schor, E. L., & Halfon, N. (2022). What Makes an Intervention a Life Course Intervention?. *Pediatrics*, 149(Suppl 5), e2021053509D. <https://doi.org/10.1542/peds.2021-053509D>
2. Liu, P. Y., Beck, A. F., Lindau, S. T., Holguin, M., Kahn, R. S., Fleegler, E., Henize, A. W., Halfon, N., & Schickedanz, A. (2022). A Framework for Cross-Sector Partnerships to Address Childhood Adversity and Improve Life Course Health. *Pediatrics*, 149(Suppl 5), e2021053509O. <https://doi.org/10.1542/peds.2021-053509O>
3. Frates B, Ortega HA, Freeman KJ, Co JPT, Bernstein M. Lifestyle Medicine in Medical Education: Maximizing Impact. *Mayo Clin Proc Innov Qual Outcomes*. 2024 Aug 24;8(5):451-474. doi: 10.1016/j.mayocpiqo.2024.07.003. PMID: 39263429; PMCID: PMC11387546.
4. Trilk, Jennifer, PhD, FACSM et al. Including Lifestyle Medicine in Medical Education: Rationale for American College of Preventive Medicine/AMA Resolution 959. *Topics in Education*. Vol 56, issue 5, E 169-175. May 2019.
5. CDC Fact Finder Accessed March 2026
6. Skinner A et al. Cardiometabolic Risks and Severity of Obesity in Children and Young Adults. *NEJM*. Oct 1, 2015. 373: 1307-1317
7. Desmond MA, Sobiecki J, Fewtrell M, Wells JCK. Plant-based diets for children as a means of improving adult cardiometabolic health. *Nutr Rev*. 2018 Apr 1;76(4):260-273. doi: 10.1093/nutrit/nux079. PMID: 29506219. W Enos et al *JAMA* 1953 .
8. WHO, American Cancer Society, American Institute of Cancer Research: Accessed 2/2026. .
9. Van Zutphen M, Verkaar AJCF, van Duijnhoven FJB, et al. Early-life anthropometry and colorectal cancer risk in adulthood: Global Cancer Update Programme (CUP Global) systematic literature review and meta-analysis of prospective studies. *Int J Cancer*. 2025; 157(6): 1094-1109. doi:10.1002/ijc.35461
10. CDC. (2022, January 12). *Benefits of Physical Activity for Children*. Centers for Disease Control and Prevention. <https://www.cdc.gov/physicalactivity/basics/adults/health-benefits-of-physical-activity-for-children.html>
11. Baron KG, Reid KJ, Kern AS, Zee PC (2011). Role of sleep timing in caloric intake and BMI. *Obesity (Silver Spring)* 19(7): 1374–1381

12. Glaser N and Styne D (2020). Thoughts on the Association Between Sleep and Obesity. *Pediatrics* 145(3):e20193676
13. Anderson S, Andridge R and Whitaker R (2016). Bedtime in Preschool-Aged Children and Risk for Adolescent Obesity. *J of Pediatrics* 176: 17-22.
<https://doi.org/10.1016/j.jpeds.2016.06.005>
14. Marino C, Andrade B, Montplaisir J, et al. Testing Bidirectional, Longitudinal Associations Between Disturbed Sleep and Depressive Symptoms in Children and Adolescents Using Cross-Lagged Models. *JAMA Netw Open*. 2022;5(8):e2227119. doi:10.1001/jamanetworkopen.2022.2711
15. Mineo, L (2017). Good genes are nice, but joy is better. *The Harvard Gazette*. <https://news.harvard.edu/gazette/story/2017/04/over-nearly-80-years-harvard-study-has-been-showing-how-to-live-a-healthy-and-happy-life/>
16. Vaillant, G, McArthur C and Bock A (2022). Grant Study of Adult Development, 1938-2000. <https://doi.org/10.7910/DVN/48WRX9>
17. Yang C, Boen C, Gerken K et al (2016). Social relationships and physiological determinants of longevity across the human life span. *PNAS* 113(3): 578–583
<https://doi.org/10.1073/pnas.1511085112>
18. Bahr DB, Browning RC, Wyatt HR, Hill JO. (2009) Exploiting social networks to mitigate the obesity epidemic. *Obesity (Silver Spring)* 17(4):723-8. doi: 10.1038/oby.2008.615. Epub 2009 Jan 15. PMID: 19148124.
19. <https://www.cdc.gov/healthyyouth/substance-use/index.htm> Reviewed Sept 29, 2022
20. Nakaishi, L., Sugden, S. G., & Merlo, G. (2022). Primary Care at the Intersection of Lifestyle Interventions and Unhealthy Substance Use. *American journal of lifestyle medicine*, 17(4), 494–501. <https://doi.org/10.1177/15598276221111047>