Time for the Talk: Prescribing Exercise & Diet for Your Patients

May 19th, 2017
Tanya M. Halliday, PhD, RD

Disclosure
Nothing to disclose

Learning Objectives

Participants will be able to...

• Evaluate patients’ current physical activity and nutrition habits.

• Integrate physical activity and nutrition counseling into standard clinician-patient interactions.

• Formulate exam-room dialogues that promote behavior change in patients.

• Implement a referral system in the primary care setting to connect patients with exercise and nutrition professionals.
Physical Activity Guidelines for Adults

<table>
<thead>
<tr>
<th>Activity</th>
<th>Substantial Health Benefits</th>
<th>Additional Health Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aerobic Exercise</td>
<td>150 min/week moderate-intensity, or 75 min/week vigorous-intensity</td>
<td>300 min/week moderate-intensity, or 150 min/week vigorous-intensity</td>
</tr>
<tr>
<td>Muscle Strengthening Activities</td>
<td>All major muscle groups 2+ days/week at moderate-to-high intensity</td>
<td></td>
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</tbody>
</table>

Additional Details:
- Spread throughout week
- Aerobic exercise in bouts of at least 10 min
- Older adults should follow guidelines above, if possible
- If can’t meet above, “be as physically active as possible”


Prevalence of Insufficient Physical Activity

Adapted from World Health Organization data, 2010
Current Dietary Guidelines

Healthy Eating Index (HEI)-2010

Score Ranges 0 – 100
Average American: ~50 (Poor)
“The modern world makes it very easy to out-eat exercise & nearly impossible to out-exercise excessive eating.”

– Dr. David Katz

Katz DL. Int J Obes. 2011
What Influence Could I Possibly Have?

If patients hear from a physician or other healthcare professional that they are overweight, they are…

- 2.5x more likely to attempt weight loss
- ~6x more likely to perceive themselves as overweight

In this study…

- 45.2% of individuals with BMI ≥ 25 had been told they were overweight
- 66.4% of individuals with BMI ≥ 30 had been told they were overweight

SMARTER Trial: Step Monitoring to Improve ARTERial Health

- Physician-delivered pedometer-based program to their patient’s with T2DM or HTN
- Short, simple, and easily integrated into clinic visits
- Step Count Prescription vs. Standard Care
- Goal: 3,000 step/d increase over 1 year above participant baseline
  ~30 min/d walking at moderate pace

SMARTER Trial:

- Patient's seen 3-4x over 12 months
  - Consistent with DM and HTN follow-up interval recommendations
- Individually-tailored written step count prescription

SMARTER Trial Results

20% increase in steps/d in active vs. control group

Active: +1,220 steps/d
Control: +30 steps/d

SMARTER Trial Results

Decreases in A1c and HOMA-IR in active vs. Control group

“Every step you take is an AMPK activator”
- Ralph LaForge

Evaluate Physical Activity and Dietary Habits

Incorporate Weight, Exercise, and Diet History Into Standard Paperwork

Incorporate Assessment of Current Habits Into Standard Paperwork

**Physical Activity Screeners:**

The Physical Activity Vital Sign

1. On average, how many days per week do you engage in moderate to strenuous exercise (like a brisk walk)? __________ days
2. On average, how many minutes do you engage in exercise at this level? __________ minutes
3. Total minutes per week (multiple #1 by #2) __________ minutes per week

How many days a week do you perform muscle strengthening exercises, such as bodyweight exercises or resistance training? __________ days

Incorporate Assessment of Current Habits Into Standard Paperwork

**Diet Screeners:**
- Participant kept food records
- 24-hour recalls
- Food-frequency Questionnaire (on-line options)
  - Options, but likely not the most practical in primary care setting to administer & analyze

**SERVE Acronym**
- Sugar-sweetened beverages & other liquid calories
- Exercise habits
- Regularity of meals and Restaurant use
- Vegetable and fruit intake
- Eating portion awareness

[Preparticipation Health Screening Diagram]

[Image of SERVE Acronym Table]

Stages of Change

Pre-contemplation
Unawareness of the problem

Contemplation
Thinking of change in the next 6 months

Preparation
Making plans to change now

Action
Implementation of change

Relapse
Restart of unfavorable behavior

Make the Waiting Room an Extension of Your Advice…

Getting the Conversation Going – The “5 As” of Obesity Counseling
5A's – Adapted to be Exercise and Diet Specific

**Ask**
- Ask for permission to discuss diet and exercise.
- Explore readiness for change.

**Assess**
- Assess exercise and eating habits and history.
- Success and failures of prior attempts to alter behavior and perceived barriers for making changes.

**Advise**
- Advise the patient about the health risks of inactivity and poor dietary habits, the benefits of changes, the need for long-term strategy, and treatment options.

**Agree**
- Agree on realistic expectations, targets, behavioral changes, and specific details of the treatment plan.

**Arrange/Assist**
- Assist in identifying and addressing barriers; provide resources; assist in finding and consulting with appropriate providers; arrange regular follow-up.

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**ASK: Helpful Phrases**

- “Can we discuss your exercise and diet habits?”
- “Is it OK if we spend a little bit of time discussing your weight, exercise, and dietary habits?”
- “How do you feel about your exercise and diet habits?”
- “Do you think your activity and eating habits might be contributing to the <medical problem> that you’re having?”
- “On a scale of 1 to 10, how important is it for you to change these behaviors?”
- “ready are you to change?”
- “confident are you in your ability to change?”

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**ASSESS:**

- Use intake forms as starting point for further probing
- Inquire about success/failure of previous efforts to change behaviors as well as perceived barriers to current changes
- **Exercise:**
  - What types of exercise or activities do you enjoy?
  - Background with sports/exercise?
  - Access to locations amenable to physical activity/exercise
- **Diet:**
  - Location of consumption (home, work, TV, etc)
  - Access to food; nutrition literacy; cooking skills
  - Eating-related triggers (stress, social, etc)
ADVISE:

• "May I offer you suggestions based on what you’ve told me?"

• "These measurements indicate that your diet/exercise/weight is likely contributing to your current <medical problem> and increasing your risk for <DM, HTN, CA, CVD...>. The good news is that increased activity/improved diet/weight loss can substantially <reduce risk of dz, improve dz>.

• "If you’re interested, we can work together to create a plan of action to increase activity/improve diet/lose weight”

AGREE:
Talk About the Big Picture & Create 1st Steps

• "Given all we have discussed what specific changes in your activity and diet habits would you like to make?"

• Discuss realistic expectations:
  – E.g. – Dream Weights ~35% weight loss
  – Unsustainable dietary/PA changes

• If not ready to change:
  – "It sounds like now is not the best time for you to make changes"
  – "You seem to be saying that you have life events that keep you from making changes, so what do you think is the best way for us to move forward at this time?"

Motivational Interviewing: Principles

Express empathy

Develop discrepancy

Support self-efficacy

Avoid argumentation

Resolve ambivalence
If “Exercise is Medicine” we need to prescribe it like a medicine.

Be Descriptive & Specific

Frequency of Exercise (FITT-VP)

• ≥ 5 days/week to maximize caloric expenditure

My Workout Schedule
Intensity of Exercise (FITT-VP)

• Moderate-to-vigorous intensity aerobic activity should be encouraged.

• Initial exercise training intensity should be moderate (i.e., 40%–<60% VO$_2$R or HRR).

• Eventual progression to more vigorous exercise intensity (i.e., ≥60% VO$_2$R or HRR) may result in further health/fitness benefits.

Time [Duration] & Volume (FITT-VP)

• Minimum: 30 min/d (i.e. 150 min/week) progressing to 60 min/d (i.e. 300 min/week)

• 2009 Position Stand & ACSM Guidelines:
  – 150 – 250 min/week to prevent weight gain
  – >250 min/week to cause clinically significant weight loss and maintain weight loss

• Multiple intermittent bouts (10 min) okay
  – Especially if beginning program

Type of Exercise (FITT-VP)

• Aerobic
  – Lifestyle PA or Structured Exercise Program both okay

• Resistance Training
  – To help maintain lean mass during weight loss

• Try to limit orthopedic stress
  – Swimming, elliptical, biking, etc.
Progression of Exercise (FITT-VP)

- Gradual and as tolerated
- Likely need to increase intensity/duration at a slower rate than more conditioned individuals.

Special Considerations

- **Heat burden**
  - Encourage breathable clothing
  - Environmental considerations
  - Hydration
- **Balance**
- **Embarrassment**
- **CVD and DM Risk Factors & Medications**
- **Orthopedic/Functional Limitations Common**
**Diet Prescription:**

*Therapeutic Lifestyle Changes (TLC) Diet*

- Component of ATP III Guidelines
  - REAP Questionnaire targets nutrients in this diet
- Weight loss of 5-10% in 6 months - 1 year

<table>
<thead>
<tr>
<th>Nutrient</th>
<th>Recommended Intake</th>
</tr>
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<tbody>
<tr>
<td>Saturated Fat</td>
<td>&lt;7% total kcals</td>
</tr>
<tr>
<td>Polyunsaturated Fat</td>
<td>Up to 10% total kcals</td>
</tr>
<tr>
<td>Monounsaturated Fat</td>
<td>Up to 20% total kcals</td>
</tr>
<tr>
<td>Total Fat</td>
<td>25-35% total kcals</td>
</tr>
<tr>
<td>Cholesterol</td>
<td>&lt;200 mg/d</td>
</tr>
<tr>
<td>Carbohydrate</td>
<td>50-60% total kcals</td>
</tr>
<tr>
<td>Fiber</td>
<td>20-30 g/d</td>
</tr>
<tr>
<td>Protein</td>
<td>~15% total kcals</td>
</tr>
<tr>
<td>Sodium</td>
<td>&lt;2400 mg/d</td>
</tr>
<tr>
<td>Stanol esters</td>
<td>3-4 g/d</td>
</tr>
</tbody>
</table>

*Put In To Food Terms…*

<table>
<thead>
<tr>
<th>More of These</th>
<th>Less of These</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breads &amp; Cereals</td>
<td></td>
</tr>
<tr>
<td>+6 svgs/d</td>
<td>Whole grain options, rice, potatoes, beans and peas</td>
</tr>
<tr>
<td></td>
<td>Bakery products &amp; grain-based snacks</td>
</tr>
<tr>
<td>Vegetables</td>
<td></td>
</tr>
<tr>
<td>3-5 svgs/d</td>
<td>Fresh, frozen, canned, without added fat</td>
</tr>
<tr>
<td></td>
<td>Fried, prepared w/ butter, cheese, cream sauce</td>
</tr>
<tr>
<td>Fruits</td>
<td></td>
</tr>
<tr>
<td>2-3 svgs/d</td>
<td>Fresh, frozen, canned, dried</td>
</tr>
<tr>
<td></td>
<td>Fried or served with fat</td>
</tr>
<tr>
<td>Dairy Products</td>
<td></td>
</tr>
<tr>
<td>2-3 svgs/d</td>
<td>Fat-free/low-fat milk, yogurt, cheese</td>
</tr>
<tr>
<td></td>
<td>Full-fat milk, yogurt, ice cream, cheese</td>
</tr>
<tr>
<td>Eggs</td>
<td></td>
</tr>
<tr>
<td>≤2 yolks/wk</td>
<td>Egg whites, substitutes</td>
</tr>
<tr>
<td></td>
<td>Fried eggs w/fat added</td>
</tr>
<tr>
<td>Meat, Fish, Poultry</td>
<td></td>
</tr>
<tr>
<td>≤5 oz/d</td>
<td>Lean cuts (loin, leg, skinless poultry, fish)</td>
</tr>
<tr>
<td></td>
<td>Higher-fat cuts (ribs, bacon, fried items)</td>
</tr>
<tr>
<td>Fats &amp; Oils</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Unsaturated oils, seeds &amp; nuts</td>
</tr>
<tr>
<td></td>
<td>Saturated fats</td>
</tr>
</tbody>
</table>

*Unique Prescription Examples*

- [Outdoors Rx logo]
- [Double Up Food Bucks logo]
Referring Patients to Exercise and Nutrition Professionals

Connect w/Local Providers: Exercise

- **Contact Local Fitness Facilities**
  - Discounted membership rates
  - Special introduction packages

- **ACSM-certified Exercise Specialists**
  - Disease-specific certifications

- **Exercise Physiologist in Office**

Connect w/Local Providers: Nutrition

- **Contact College Nutrition Programs**
  - Specific projects for UG and GRAD students
  - Experience for students w/faculty oversight

- **Rotation Site for Dietetic Interns**

- **Office Space for Private Practice RD**
  - Denver Dietetic Association, Colorado Academy of Nutrition and Dietetics.
  - Certified Diabetes Educators, Lipid Specialist Certifications, etc.
Commercial Program Considerations

- Portion control—calorie counting, meal replacements, limiting certain food groups
- Regular, moderate intensity PA
- Self-monitoring—weight and food intake
- Behavioral support—individual and group sessions (online support?)
- Option for long-term participation or weight maintenance support

Efficacious Commercial Programs
2015 Systematic Review¹ & 2017 RCT²

<table>
<thead>
<tr>
<th>Program</th>
<th>Monthly Cost¹</th>
<th>12-wk Wt. Loss²</th>
<th>Wt. Loss vs. control/education¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight Watchers</td>
<td>$43</td>
<td>4.3 kg</td>
<td>+2.6% at 12 months</td>
</tr>
<tr>
<td>Jenny Craig</td>
<td>$570</td>
<td>5.3 kg</td>
<td>+4.9% at 12 months</td>
</tr>
<tr>
<td>Nutrisystem</td>
<td>$280</td>
<td>5.0 kg</td>
<td>+3.8% at 3 months</td>
</tr>
</tbody>
</table>

¹. Gudzne KA, Ann Int Med, 2015

Anschutz Health & Wellness Center Programs

<table>
<thead>
<tr>
<th>Program</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>My New Weigh</td>
<td>24 weeks; Weekly group classes; Meal replacement; lifestyle intervention; MD supervised; RD coach</td>
</tr>
<tr>
<td>State of Slim</td>
<td>16 weeks; Group or 1-on-1 options; lifestyle intervention</td>
</tr>
<tr>
<td>STRIDE</td>
<td>8 weeks; weight loss maintenance focused; RD coach</td>
</tr>
<tr>
<td>Individual MD or RD interventions</td>
<td>Tailored as needed to individual</td>
</tr>
</tbody>
</table>

http://anschutzwellness.com
5A's Done…Now What?

Document in Patient’s Chart....
& Follow-Up at Subsequent Visits

Would you prescribe an anti-HTN prescription at one dose and then never revisit it?

Key Summary

• Primary care is an important setting for obesity-related lifestyle change
• Minimal intervention strategies such as the 5 As can guide the process of counseling a patient about behavior change.
• Strategies can be implemented in busy practice settings
RESOURCES

- 2013 AHA/ACC/TOS Guideline for the Management of Overweight and Obesity in Adults
- Talking w/Patients About Weight Loss – Tips for Primary Care Clinicians
- Obesity Medicine Algorithm
  https://obesitymedicine.org/obesity-algorithm/download-now/
- Rethink Obesity http://www.rethinkobesity.com/
- Strategies to Overcome and Prevent (STOP) Obesity:
  http://stopobesityalliance.org/wp-content/themes/stopobesityalliance/pdfs/STOP-Provider-Discussion-Tool.pdf#page=12

RESOURCES – Physical Activity

- Walking – A Step in the Right Direction
- Exercise is Medicine http://exerciseismedicine.org/
- Everybody Walk everybodywalk.org

RESOURCES - Nutrition

- MyPlate – Health Professionals Site: https://www.choosemyplate.gov/health-professionals
- Just Enough for You – Portions: https://www.niddk.nih.gov/health-information/health-topics/weight-control/just-enough/Pages/just-enough-for-you.aspx
- Certified Culinary Medicine Specialist
- REAP (Rapid Eating Assessment for Participants)