Health at Every Size

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Outline for Today’s Discussion

• Navigating a changing nutrition landscape
• Adopting an individual approach for nutrition recommendations
• Principles of health at every size approach
Here’s What People are Saying

“I used to be able to eat anything I wanted”

“It was hard at first to adjust to my new body”

“I love my new curves”

“It bothers me that I have a lot of belly fat now”

“I’m trying not to obsess over the scale or develop unhealthy obsession with my new body”

“I feel strong when I look at myself in the mirror”

“I’m trying to accept that this is the size I was meant to be”
## Modulator Therapies in CF

<table>
<thead>
<tr>
<th>Modulator</th>
<th>Genotype</th>
<th>Age</th>
<th>FDA approval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kalydeco® (ivacaftor)</td>
<td>G551D/R117H (36 others)</td>
<td>6 months and older</td>
<td>2012</td>
</tr>
<tr>
<td>Orkambi® (lumicaftor, ivacaftor)</td>
<td>2 copies of delta-F508</td>
<td>2 years and older</td>
<td>2015</td>
</tr>
<tr>
<td>Symdeco® (tezacaftor, Ivacaftor)</td>
<td>2 copies of delta-F508 or 1 copy of 26 others</td>
<td>6 years and older</td>
<td>2018</td>
</tr>
<tr>
<td>Trikafta® (elexacaftor, tezacaftor, ivacaftor)</td>
<td>One copy of delta-F508 or a responsive mutation</td>
<td>6 years and older</td>
<td>2019</td>
</tr>
</tbody>
</table>
## BMI and Weight Gain

<table>
<thead>
<tr>
<th>First Author</th>
<th>Year</th>
<th>Age/N</th>
<th>Trial</th>
<th>Time period</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ramsey BW</td>
<td>2011</td>
<td>&gt; 12 yo N = 83</td>
<td>Kalydeco® Randomized double blind placebo controlled</td>
<td>48 weeks</td>
<td>Improved weight gain</td>
</tr>
<tr>
<td>Davies JC</td>
<td>2013</td>
<td>6-11 yo N = 26</td>
<td>Kalydeco® Randomized placebo control</td>
<td>26 weeks</td>
<td>Improved weight gain and BMI</td>
</tr>
<tr>
<td>Davies JC</td>
<td>2016</td>
<td>2-5 yo N = 34</td>
<td>Kalydeco® 2 part KIWI study</td>
<td>24 weeks</td>
<td>Improved weight gain and BMI expressed as z-scores</td>
</tr>
<tr>
<td>Stalvey MS</td>
<td>2016</td>
<td>6-11 yo N = 83</td>
<td>Kalydeco® Post-Hoc analysis of GOAL and ENVISION studies</td>
<td>6 mo</td>
<td>Improved ht and wt z-scores; Improved height velocity</td>
</tr>
</tbody>
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</tr>
</thead>
<tbody>
<tr>
<td>Konstan MW</td>
<td>2017</td>
<td>&gt;12 yo N = 176</td>
<td>Orkambi® Progress extension study</td>
<td>96 weeks</td>
<td><strong>Improved wt/age and BMI z scores</strong></td>
</tr>
<tr>
<td>Milla CE</td>
<td>2017</td>
<td>6-11 yo N = 58</td>
<td>Orkambi® open label phase III</td>
<td>24 weeks</td>
<td><strong>Improved BMI z scores</strong></td>
</tr>
<tr>
<td>Ratjen F</td>
<td>2017</td>
<td>6-11 yo N = 104</td>
<td>Orkambi® Randomized double blind placebo controlled</td>
<td>24 weeks</td>
<td>No significant increase in BMI from baseline</td>
</tr>
<tr>
<td>Peterson M</td>
<td>2021</td>
<td>Adults N = 134</td>
<td>Trikafta® Retrospective Observational</td>
<td>12 months</td>
<td>↑BMI = 1.47 kg/m²/year</td>
</tr>
<tr>
<td>Nichols P</td>
<td>2022</td>
<td>Adults N = 487</td>
<td>Trikafta® Prospective Observational</td>
<td>6 months</td>
<td>↑BMI = 1.4 kg/m² in 6 months</td>
</tr>
</tbody>
</table>
Comparison of Lung Function vs Body Mass Index in Children with Cystic Fibrosis

Stallings VA, et al.

FEV1 Percent Predicted vs. BMI Percentile in Children 6 to 19 Years

Goal
50th Percentile

Males
Females
Optimal Weight and Growth Status

Risks
None

Benefits
↑ Survival
↑ Immune Status
↑ Physical and Mental performance
↑ Transplant Readiness
↑ Pregnancy Readiness
Common Nutrition Interventions

What both approaches have in common: weight based with a secondary focus on health

Goal for increasing or maintaining weight (for children or adults with CF)

- “Legacy Diet”
- High calorie high protein diet
- Eat whatever you want mentality
- Use of calorie dense supplements/milk shakes or gastrostomy tube feedings

Goal for weight loss (for adolescents finished growing or adults with CF or people without CF)

- Watch portion sizes/diet/calorie deficit
- Eat “healthy/good foods”; don’t eat “bad foods”
- Exercise
Weight loss Myths

Myth 1: **Eating less and exercises more guarantees weight loss**
- While weight loss diets may work in the short term
- Most people end up regaining weight that was lost and sometimes more
- One meta-analysis looking at 29 long term weight loss studies, found that more than half of weight was regained in 2 years, 80% of weight was regained in 5 years (Anderson et al: Am J Clin Nutr 2001)

Myth 2: **Thin people are more healthy; heavier people are unhealthy**
- It’s true that obesity increases the risk of several chronic illnesses, including type 2 diabetes, heart disease, and some cancers
- However, plenty of people with obesity are metabolically healthy — and plenty of thin people have these same chronic diseases (Osama et al; Curr Diab Rev 2006)
Detrimental Effects of Diet Mentality

- Preoccupation with food
- Psychological and emotional distress

(Health at Every Size: The Surprising Truth about Your Weight by Linda Bacon PhD)
Determinants of Health

McGinnis, et. al. (2002)

- Genetics: 30%
- Social Status: 15%
- Environment: 5%
- Healthcare: 10%
- Behavior: 40%
What is Health at Every Size (HAES)®?

HAES® supports people in adopting health habits for the sake of health and well-being NOT for weight control/loss

HAES encourages:

• Eating in a flexible manner that values pleasure and honors internal cues of hunger, satiety, and appetite
• Finding joy in movement and becoming active and more physically vital
• Accepting and respecting the natural diversity of body sizes and shapes

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⚠️ HAES may not be an appropriate strategy for individuals struggling to gain weight
Research in Support of HAES®

6 Randomized Controlled Trials

HAES/non-diet groups experienced improvements in:
• physiological measures (e.g. blood pressure, blood lipids)
• health behaviors (e.g. physical activity, eating disorder pathology)
• psychosocial outcomes (e.g., mood, self-esteem, body image)

No studies found adverse findings in the HAES/non-diet groups

HAES® key components: How to put into practice

HAES is a weight neutral approach
• Takes the focus off of weight
• Trusts that a person’s weight will settle where it should when whole health habits are practiced
• Support people to feel good about themselves no matter the outcome

Engage in intuitive eating and exercise
• A focus on internal rather than external cues
External Vs Internal Cues for Eating

**External Cues**
- Calorie count
- Grams of fat, carbs, sugar etc
- Exchanges
- Portion sizes
- Pyramids, plates, guidelines
- Clock

**Internal Cues**
- Hunger
- Fullness
- Cravings
- Flavors, textures, colors, smells
- Emotional state
Intuitive Eating: Hunger and Fullness

Consider your hunger and fullness on a scale from 1 to 10

- What happens when you start eating a meal when you are **starving**? Where do you end up?
- What happens when you start eating a meal **gently hungry**? Where do you end up?
Emotional Eating

Sometimes we eat for reasons other than hunger

Emotional eating is a coping tool that works (or else you wouldn’t be choosing it)

What emotions lead us to eat when we’re not physically hungry?

Mindfulness is key: Notice how the food is helping (or not helping) you cope with your emotions
Intuitive Exercise

What happens when weight loss is the primary motivation for exercise?
We count calories burned
We only exercise on machines that count calories burned
We only exercise after we eat something high in calories
We avoid exercising at places where others appear more fit
We only continue to exercise IF we continue to lose weight
Intrinsic vs. extrinsic motivation for exercise

**Intrinsic motivation**
- Motivation comes from internal rewards
- Rewards are often experienced right away
  - Mood enhancement
  - Decreased stress
  - Enjoyment
  - Sleep better

**Extrinsic motivation**
- Motivation comes from external rewards
- Rewards are rarely immediate
  - Weight loss
  - Increased muscle tone
  - Money / gifts
Intuitive Exercise

Move your body in a way that feels good
Notice how you feel before, during and after physical activity

Make it happen by:
• Finding Pleasurable Activities
• Making it Fun – Music? Exercise partners?
• Mixing it up! VARIETY
• Listening to your body
• Making it fit in – everything counts
Bringing It All Together

- Let go of diet mentality and weight obsession
- Tune into hunger and fullness to determine meal timing and quantity
- Eat mindfully
- Regularly satisfy cravings
- Plan for eating (meals and snacks) throughout the day
- Engage in regular enjoyable movement
- Love and respect your body unconditionally
- Take responsibility for your physical and mental health, get regular medical care
Resources

Health At Every Size
Linda Bacon, PhD

Anti-Diet: Reclaim Your Time Money, and Happiness Through Intuitive Eating by Christy Harrison, MPH, RD

Mindful Eating by Jan Chozen Bay, MD

Intuitive Eating
Evelyn Tribole, MS, RDN, and Elyse Resch, MS, RDN