CHILDHOOD OBESITY: THE PROBLEM, ITS CONSEQUENCES & SOLUTIONS

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Objectives

At the end of the session, participants will be able to:

- Identify at least three interventions to help prevent overweight
- Identify at least three individuals and community-based health promotion and prevention strategies to help overweight
- Identify three areas in participant’s life where one can advocate on behalf of children and families for more comprehensive and integrated community-based services to help prevent and ameliorate overweight
Background of the Overweight Problem

- Rapid rate of increase of overweight over the last two decades
- Risk of overweight children becoming an over to adulthood
- Rise in co-morbidities
- Economic Burden
- Lack of training among primary care providers
Overweight* Children in the U.S.

(*BMI > 95th percentiles)

Source: Ogden CL, Flegal KM, Carroll MD, Johnson CL JAMA, 2002;288:1728-1732
Role of Health Care Providers

- Prevent
- Detect
- Manage
- Refer
AAP Recommendation

“Prevention of **overweight** is critical, because long-term outcome data for successful treatment approaches are limited.”

From: Prevention of Pediatric Overweight and Obesity. Policy statement from the Committee on Nutrition PEDIATRICS Vol. 112 No. 2 August 2003, pp. 424-430
Prevention of Overweight

- Provider Readiness for Change
- Risk Assessment
- Accurate Measurements
- Education and Support
Educational and Supportive Steps to Prevent Overweight in the Primary Care Setting
Education and Support

- Optimal breastfeeding practices
- Timing of introduction of solid foods
- Reduction of inactive time
- Increasing active time for children and families
- Increasing to 5 fruit and vegetable servings per day
- Education and modification of portion sizes
- Cultural sensitivity
Promotion of optimal breastfeeding practices

Key points of contact
- Prenatal
- Newborn
- 3-5 days old
- One month
- Back to work

Resource
- www.cdc.gov/breastfeeding

AAP Recommendation

Infant Should:
- Breastfeed within the first hour of life
- Breastfeed on demand
- Be fed no supplements
- Receive appropriate follow-up after birth
- Continue to breastfeed/breast milk feed if mother and infant separated
- Exclusively breastfeed for the first 6 months of life and continue to breastfeed for one or more years

Breastfeeding Decreases Obesity Prevalence in 5-6 Year Olds

<table>
<thead>
<tr>
<th>BREASTFEEDING DURATION</th>
<th>PREVALENCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never breastfed</td>
<td>4.5%</td>
</tr>
<tr>
<td>Two months exclusively</td>
<td>3.8%</td>
</tr>
<tr>
<td>Three-five months</td>
<td>2.3%</td>
</tr>
<tr>
<td>Six-twelve months</td>
<td>1.7%</td>
</tr>
<tr>
<td>More than twelve months</td>
<td>0.8%</td>
</tr>
</tbody>
</table>

Instruction regarding appropriate timing of introduction of solid foods

- Key points of contact:
  - 2 months
  - Every WCC visit to 12 months

- Resource
  - [www.who.org](http://www.who.org)

Around 6 months of age depending on developmental readiness

Reduction of inactive time

Key points of contact
- At every well child visit

Strategies
- Choose as a family 1-2 hours of television shows to watch and then turn off the TV when desired shows are finished
- Remove television and/or computer from child’s bedroom

From:
- Prevention of Pediatric Overweight and Obesity. Policy statement from the Committee on Nutrition PEDIATRICS Vol. 112 No. 2 August 2003, pp. 424-430
AAP Recommendation

- 0-2 years old: no television
- >2 years old: <2 hours/day of TV and other entertainment media

From: Children, Adolescents, and Television (RE0043), Committee on Public Education
www.aap.org/policy/re0043.html
Television viewing and risk of overweight

- 10-15 year olds were 4.6 times more likely to be overweight if they watched 5 or more hours of television compared to 0-2 hours per day.
Percent of Overweight with Television in the Bedroom in >=1 and <5 years old. From: Dennison BA, Erb TA and Jenkins PL (2002)
Increasing active time for children and families

CDC Recommendation
- 30-60 minutes of moderate exercise per day

Key points of contact
- Every WCC visit after 2 years

From:
- [www.cdc.gov/nccdphp/dnpa/physicalactivity.htm](http://www.cdc.gov/nccdphp/dnpa/physicalactivity.htm)
- [www.cdc.gov/nccdphp/dnpa/recommendations.htm](http://www.cdc.gov/nccdphp/dnpa/recommendations.htm)
Increasing active time for children and families

**Strategies**

- Incorporate physical activity into daily activities

From:
- [www.cdc.gov/nccdphp/dnpa/physicalactivity.htm](http://www.cdc.gov/nccdphp/dnpa/physicalactivity.htm)
- [www.cdc.gov/nccdphp/dnpa/recommendations.htm](http://www.cdc.gov/nccdphp/dnpa/recommendations.htm)
Increasing fruit and vegetable intake to at least 5 fruit and vegetable servings per day

NCI Recommendation
- Consume at least five fruit and vegetable servings per day

Key points of contact
- Every WCC visit after 2 years

From: www.cdc.gov/nccdphp/dnпа/5ADay/index.htm
Increasing fruit and vegetable intake to at least 5 fruit and vegetable servings per day

- Offer healthy choices at school, home, and team sporting events
- Model healthy eating behaviors
  - Practice eating family meals
  - Parent offers healthy choices and lets infant/child choose

From: www.cdc.gov/nccdphp/dnpa/5ADay/index.htm
Adolescent Fruit and Vegetable Servings by Frequency of Family Meals

Mean Total Fruit and Vegetable Serving Frequencies in One Day Pre and Post Salad Bar Intervention in three LAUSD Elementary Schools

![Bar chart showing mean servings pre and post salad bar intervention, with p<0.001 significance.]
Mean % of Kcal From Fat in One Day Pre and Post Salad Bar Intervention in three LAUSD Elementary Schools

Mean of Kcal is Fat p=.03

1998, Pre-Salad Bar Intervention
2000. Post Salad Bar Intervention
Education and modification of portion sizes

- USDA My Pyramid
- See mypyramid.gov

Focus on 1-2 changes/visit
- Modification of fruit juice and sugary drink consumption
  - Eliminate soda
  - Limit juice to one cup per day
- Reducing milk to 1% fat after 2 years old
- Limit high fat food
- Review portion size

From: www.cdc.gov/nccdphp/dnпа/heal_eat.htm
Cultural Sensitivity

Key points of contact

- Every WCC visit

From: Prevention of Pediatric Overweight and Obesity. Policy statement from the Committee on Nutrition PEDIATRICS Vol. 112 No. 2 August 2003, pp. 424-430
Cultural Sensitivity

- Parenting Skills
  - Remove temptations
  - Be a role model
  - Be consistent

- Strategies
  - Follow the ABCs of counseling
    - Active listening
    - Body language (no barriers)
    - Caring and open mind


SUMMARY
Prevention of Overweight

- Provider Readiness for Change
- Risk Assessment
  - Physical Activity
  - Physical inactivity
  - Diet
  - Parental Attitudes Towards Health and Nutrition
- Accurate Measurements
  - Height
  - Weight
- Education and Support
  - Optimal breastfeeding practices
  - Timing of introduction of solid foods
  - Reduction of inactive time
  - Increasing active time for children and families
  - Increasing to 5 fruit and vegetable servings per day
  - Education and modification of portion sizes
  - Cultural sensitivity
## Nutrition During the Life Course

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Optimal</th>
<th>Compromised</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Prenatal</strong></td>
<td>• Breastfeeding education</td>
<td>• No breastfeeding education</td>
</tr>
<tr>
<td><strong>Infant</strong></td>
<td>• Introduce solid foods at 6 months</td>
<td>• Introduce solid foods at 4 months or younger</td>
</tr>
<tr>
<td></td>
<td>• Continues to Breastfeed &gt;= 1 year</td>
<td>• No breastfeeding</td>
</tr>
<tr>
<td><strong>Toddler</strong></td>
<td>• Change to 1% milk</td>
<td>• Continues to drink whole milk</td>
</tr>
<tr>
<td></td>
<td>• TV watching &lt; 2 hours per day</td>
<td>• TV watching &gt; 2 hours per day</td>
</tr>
<tr>
<td><strong>Preschool</strong> (2-5)</td>
<td>• Drinks 1 cup of juice per day</td>
<td>• Drinks &lt; 1 cup of juice per day</td>
</tr>
<tr>
<td></td>
<td>• Physical activity ≥ 30 minutes per day</td>
<td>• Physical activity ≤ 30 minutes per day</td>
</tr>
<tr>
<td><strong>Elementary</strong> (6-12)</td>
<td>• Infrequent soda consumption</td>
<td>• Drinks 1 or more sodas per day</td>
</tr>
<tr>
<td></td>
<td>• Frequent family meals</td>
<td>• Infrequent family meals</td>
</tr>
<tr>
<td><strong>Middle &amp; High School</strong> (13-18)</td>
<td>• Infrequent fast food meals</td>
<td>• Frequent fast food meals</td>
</tr>
</tbody>
</table>
Community Goals

- Suggested activities within your community
  - Partner with WIC
  - Partner with the local school district
  - Advocate for healthier work, school, and leisure environments
    (example: LAUSD Nutrition Network)
Personal Goals

- Become a role model
  - Provide support for healthier environments for your employees and colleagues
  - Exercise regularly
Fruit comes from flowers

Fruit is very good to eat

I like to eat fruit
This presentation was done as development for a CME program for Bluecross of California and its affiliated entities.

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Professional colleagues who are unable to attend this CME activity, the material will be available for CME in a web based presentation.