Confronting the Challenges in Pediatric Weight Management: Cultural and family considerations

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Objectives

By the end of the seminar the participants will:

1. Be able to describe strategies of dealing with families who are not ready to make changes to assist in the weight management of their young obese child.
2. Be able to describe possible approaches to an obese teen whose parents are also very obese.

Childhood Obesity: Paradigm shift for families

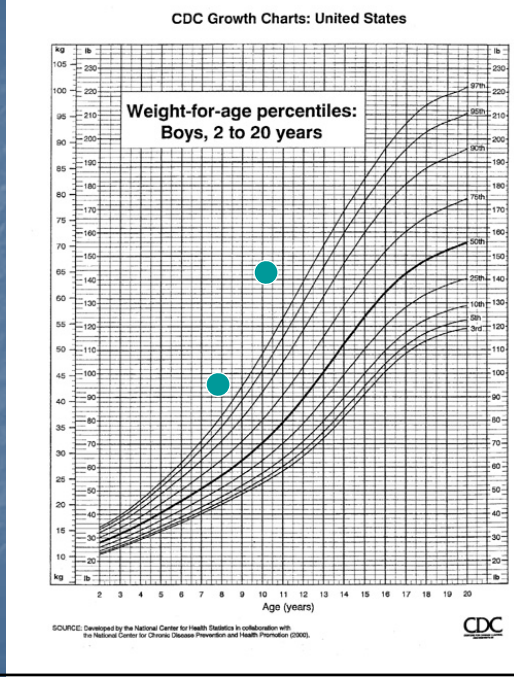
- Baby fat
- "He will grow out of it"
- We are all "big boned" in the family
- She's only a child
- "But he's hungry"
- He's going to play football
- "I just don't think he can ever lose weight"
- I feel guilty when I say "no"
- Her grandmother feeds her

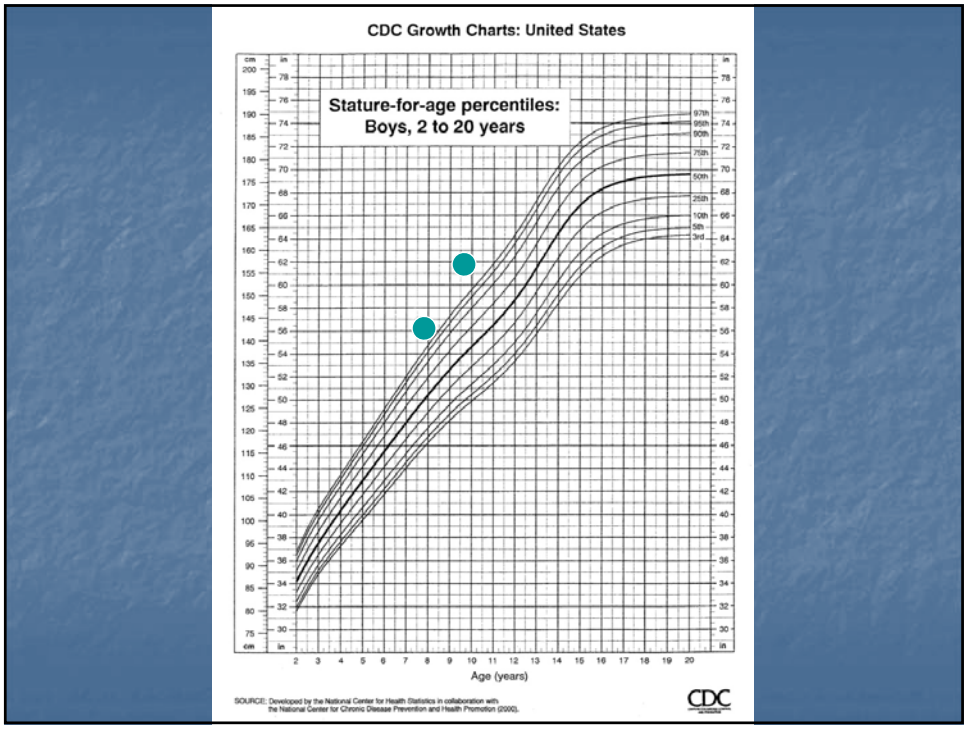
Childhood Obesity: Paradigm shift for families

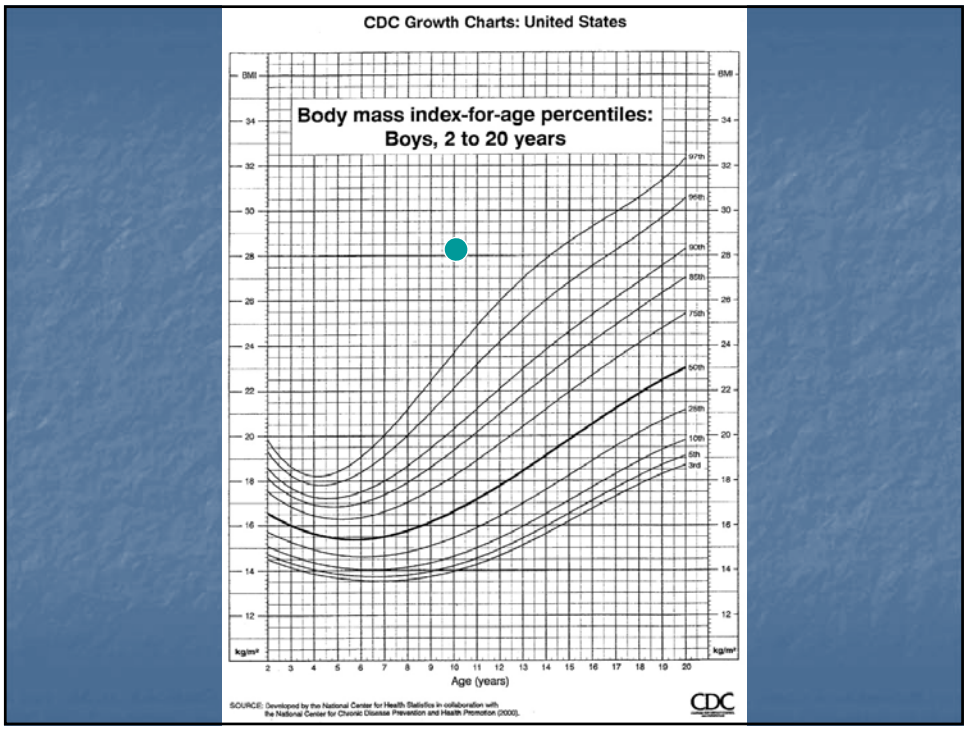
- Obesity is a chronic disease that will shorten our children's lifespan
- Diseases of adulthood are now affecting young children
- Obesity in childhood leads to obesity in adulthood
- Obesity in childhood has significant medical and psychosocial risks

Case

- M B is an 10 year old male in your office for a well check
- Weight 60 kg (132lbs) >95%
- Height 152cm (60")>95%
- BMI 26.4




CDC Growth Charts: United States
Stature-for-age percentiles:
Boys, 2 to 20 years
Age (years)
SOURCE: Developed by the National Center for Health Statistics in collaboration with the National Center for Chronic Disease Prevention and Health Promotion (2000).
CDC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CDC

Now What?
Scenario 1

- You ask mom if she has any concerns about N.B.'s weight
  - She says "we are all "big boned" in our family and he has always been healthy.

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- You could, show Mom the growth charts and express your concern that children at elevated BMI's have increased risk for health problems now and in the future and ask if mother would like more information on this.

Now What ?
Scenario 2

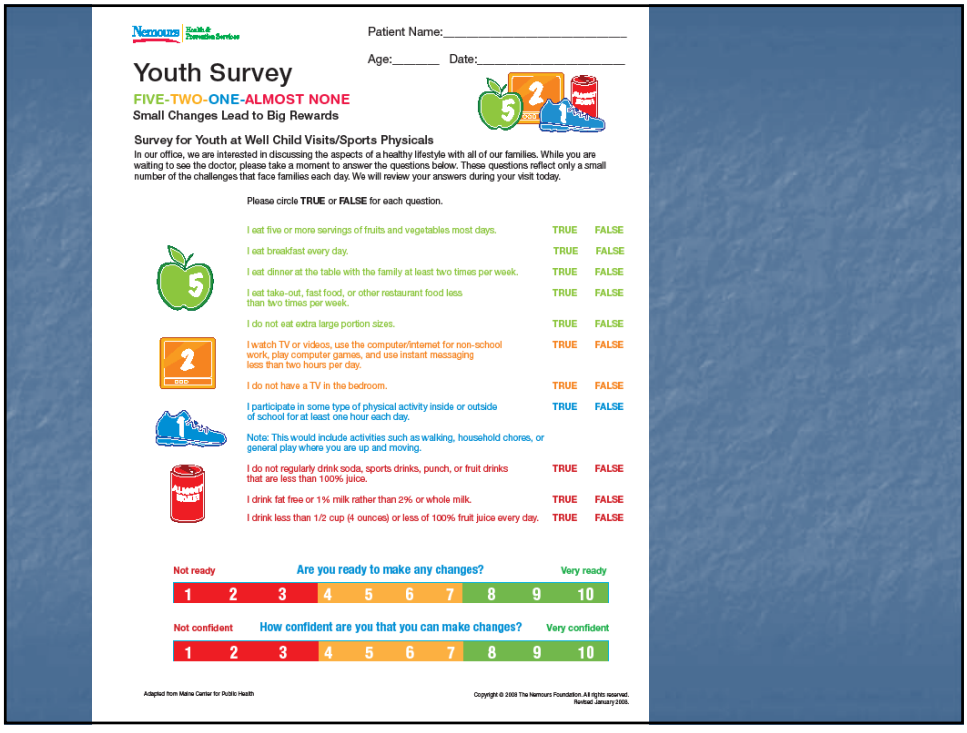
- Knowing the BMI, you move on to take the family history
  - Mother has diabetes, father has hypertension, 2 grandparents have heart disease
- Reviewing the family history, you ask mother if she is concerned about M B's health risk.
- Mom says "yes I worry about the heart disease"

"yes I worry about the heart disease"

- You could go over risk factors and the growth charts, the links between BMI and cardiac disease.
- You ask if she would like any information about how to reduce M B's risk

Now what? Scenario 3

- You have decided to implement the Expert guidelines by surveying all your patients about their healthy lifestyle behaviors at well checks.



Nemours | Health & Preventive Services

Patient Name:_____

Age:_____ Date:_____

Youth Survey

FIVE-TWO-ONE-ALMOST NONE

Small Changes Lead to Big Rewards

Survey for Youth at Well Child Visits/Sports Physicals

In our office, we are interested in discussing the aspects of a healthy lifestyle with all of our families. While you are waiting to see the doctor, please take a moment to answer the questions below. These questions reflect only a small number of the challenges that face families each day. We will review your answers during your visit today.

Please circle **TRUE** or **FALSE** for each question.

I eat five or more servings of fruits and vegetables most days.	TRUE	FALSE
I eat breakfast every day.	TRUE	FALSE
I eat dinner at the table with the family at least two times per week.	TRUE	FALSE
I eat take-out, fast food, or other restaurant food less than two times per week.	TRUE	FALSE
I do not eat extra large portion sizes.	TRUE	FALSE
I watch TV or videos, use the computer/internet for non-school work, play computer games, and use instant messaging less than two hours per day.	TRUE	FALSE
I do not have a TV in the bedroom.	TRUE	FALSE
I participate in some type of physical activity inside or outside of school for at least one hour each day.	TRUE	FALSE
Note: This would include activities such as walking, household chores, or general play where you are up and moving.		
I do not regularly drink soda, sports drinks, punch, or fruit drinks that are less than 100% juice.	TRUE	FALSE
I drink fat free or 1% milk rather than 2% or whole milk.	TRUE	FALSE
I drink less than 1/2 cup (4 ounces) or less of 100% fruit juice every day.	TRUE	FALSE

Not ready — **Are you ready to make any changes?** — Very ready

1 2 3 4 5 6 7 8 9 10

Not confident — **How confident are you that you can make changes?** — Very confident

1 2 3 4 5 6 7 8 9 10

Adapted from Maine Center for Public Health

Scenario 3

- Mother answered False to the questions
  - I eat breakfast every day
  - I participate is some physical activity inside or outside of school for at least one hour every day
- Mother answered True to
  - I do not regularly drink soda

Scenario 3

- You congratulate Mom on eliminating sugared beverages
- You ask her if you can share some information about eating breakfast or daily physical activity

Adolescent Case

Chief Complaint

- 15 year old boy accompanied by his parents and older brother
  - C/O decreased energy
  - Diagnosed with depression and treated with Prozac for past 2 months.
  - Mother has Diabetes and has recently begun on insulin.
  - Weight 106.2 kg Height 174.8 cm BMI 35.6

Family Weight History

- Mother
  - Weight 245lb, Height 5'1" BMI 46.5
  - Diabetes, Hypertension
- Father
  - Weight 205 lb, Height 5'7" BMI 32.1
  - Back problems
- 4 Brothers BMI range 28-34.5

Family Medical History

- Diabetes in paternal grandmother
- Cardiovascular disease in paternal grandfather
- Hypertension in maternal great aunts and great uncles
- Hypercholesterolemia in maternal grandfather, maternal great uncle

Family Psychological History

- Attention Deficit Disorder in brother
- Depression in maternal grandmother and maternal great aunt
- Obsessive compulsive disorder in brother, maternal grandmother and maternal great aunt

Diet History

- Nutrition History
  - Breakfast - none
  - Lunch - School bought lunch
  - Dinner - 1-2 portions
  - Drinking “a lot” in between meals- juice, soda
  - Snacking at night

Diet History

- Eating Behavior
  - Rapid eating
  - Night hunger and eating
  - Eating beyond satiety
  - Drinking “a lot”

Activity History

- Homework time
  - “Not doing any”
- Television and Computer
  - “All the time” when at home
- Extracurricular Activities (Busy not active)
  - Yearbook editor
  - Student Council
  - Orchestra
  - Student newspaper

Family report of Behavior

- Argues a lot
- Day dreams
- Demands a lot of attention
- Easily jealous
- Low self esteem
- Stubborn

School

- Sophomore in High School
  - Declining school performance, on academic probation
  - Not bringing homework home, if brings it home doesn't do it
  - Failing English, Writing, Spelling,
  - Below average in History and Math
  - Above average in Spanish and Chorus

Past Medical History

- Headaches
  - Seen by neurologist exam normal
  - Parents question if visual integration problems
- Asthma
  - Inhaler use as needed

Physical Examination

- Height 174.8, Weight 106.2 BMI 35.6
- Blood pressure 125/70mmHg
- Triceps skinfold 52mm
- Tanner 5
- Abdominal striae
- Slight shoulder tilt

Laboratory Values

- Fasting cholesterol 193 mg/dl
- Triglyceride 44 mg/dl
- HDL cholesterol 57 mg/dl
- TSH 2.36 mcIU/ml, T4 6.1 mcg/dl
  T3 135 ng/dl
- AST 22 U/l, ALT 37 U/l, GGT 25 U/l
- Glucose 88 mg/dl, Insulin 15.9 mcU/ml
  HbgA1C 5.1%. Cortisol 8.8 mcg/dl

Assessment - Family

- Parents feel weight gain primarily due to inactivity and genetics, very little to do with diet.
- Patient feels that Prozac has helped him feel less hungry and decrease his nighttime eating.

Assessment

- What do you think is the etiology of his weight gain?
- What medical factors are significant?
- What psycho/social factors are significant?
- What family-environmental factors are significant

Assessment- Medical

- Medically he is at risk for obesity, cardiovascular disease and diabetes based on family history.
  - This worries him, especially the fact that his mother recently started insulin therapy.
- He already has elevated cholesterol.
  - This worries his parents (mother especially) since maternal grandfather just diagnosed with heart failure.

Assessment- Psychosocial

- Recent decline in school performance
- Intensity of school work markedly increased in Sophomore year.
- Not finishing homework, trouble concentrating, can pay attention to what interests him.
- Family history of ADD
- Treated for depression

Assessment - Family/Environment

- Mother thinks she has ADD
  - Notes trouble with structure and scheduling
- As school concerns increased extracurricular activities decreased.

How would you begin to intervene.

- Do you need to provide more:
  - Information
  - Motivation
  - Reframe the problem
  - Externalize the problem
  - Adjust goal setting

Intervention- Setting the stage

- Explain multiple factors influencing weight gain
  - Positive family history
    - Family history of obesity and cardiovascular disease
    - History provides context and in this case motivation for change.

Intervention-Setting the stage

- **Lack of structure**
  - **Mother thinks she has trouble providing structure because she may have ADD, encouraged to explore this diagnosis.**

Intervention-Setting the stage

- **Lack of timed meals and snacks, consistency across time and dysregulated eating work against weight loss.**
- **Father supportive of trying to increase structure, He wants Mom to do it.**

Intervention- Setting the stage

- Inactivity
  - Relationship to time management
  - Create study schedule to allow time to be active
- Depression
  - Important to continue in counseling while trying to make behavior change

Intervention- Setting the stage

- New information
  - Based on history of declining school performance, difficulty with concentration and attention, time management, eating pattern, strong family history of ADD, suggest that patient may have ADD as well.

Intervention- Setting the stage

- **Not unusual to have depression as component of untreated ADD based on feelings of low self esteem, failure and dissonance between how smart patient feels and how they perform.**

Targeted change- Questions

- **What specific changes would you ask the family to make?**
- **Where is there resistence?**
- **Will someone be the "spoiler"**
- **How much change can the patient make at this time?**

Intervention - Targeted change

- Overall Goal - Weight stabilization
- Method - Family based change
- Structure - Small change in areas of nutrition, activity, and inactivity
- Remove any obstacles to weight control
  - Medical, psycho/social, family environmental

Intervention

- Diet/Nutrition
  - Structured eating
    - Standard meal times
    - 3 meals and 1 snack
  - Portion control
  - Eliminate calorie containing beverages between meals
  - Could not give up school lunch

Intervention

- **Activity/Exercise**
  - **Study schedule to create increased opportunities for activity.**
  - **Begin walking program 5 minutes/day add 1 minute/day with identified family member.**
  - **Could not yet limit TV/Computer time.**

Interim History - Follow up

- **Patient did see a psychiatrist for evaluation of possible ADD. Diagnosis made and he was started on Adderall - XR 40 mg /d and 10 mg regular Adderall in the afternoon. Still taking Prozac, now 40 mg/d.**

Response to Intervention

- Reports he has cut back drastically on regular soda consumption.
- Trying to make good choices when eats at restaurants.
- Trying to find safe place to walk. Mother concerned about busy streets.
- Mood is stable, continues in counseling.

Results of First Intervention

- 8 weeks
  - Weight 100.4 kg decreased 5.8 kg (12.7lb)
  - Height 174.8 cm
  - BMI 33.4 decreased 2.2
  - Triceps skinfold 36 mm decreased 16mm
  - Waist decreased 2 inches.

Second Intervention

- **Continue changes already made**
  - **Emphasize walking**
  - **Higher fiber diet**
  - **Time spent discussing grief at grandfather's death**
  - **Limit setting with friends who view him as a confidante i.e.. not taking on more than he can handle.**

Follow up

- **12 weeks**
  - **Orthopedic follow up of Left shoulder tilt, book bag strain. Pass to keep books in locker.**
  - **School continues to be stressful, school concerned about medical incompletes, wants him to go to day program.**

Follow up

- Medications changed to Concerta 54 mg in am with optional dose of Focalin 18 mg in the afternoon. Prozac continues at 40 mg/d. Wellbutrin 150mg/d added.
- Reports mood much improved with this treatment, interest in activities and school has returned.

Follow up

- 16 weeks
- Weight 98.4 kg decrease 2.1kg (17.8 lbs total)
  - BMI 32.3 decrease 1.1 (3.3 total)
  - Triceps skinfold 33mm decrease 3 mm
  - Hips decreased 1.5 inches
  - Cholesterol 184 mg/dl decrease 9 mg/dl

Intervention

- Continue changes which have been made.
- Plans to increase walking
- Met with nutritionist to discuss further dietary changes to help cholesterol.
- Continue in counseling and in follow up with psychiatrist.