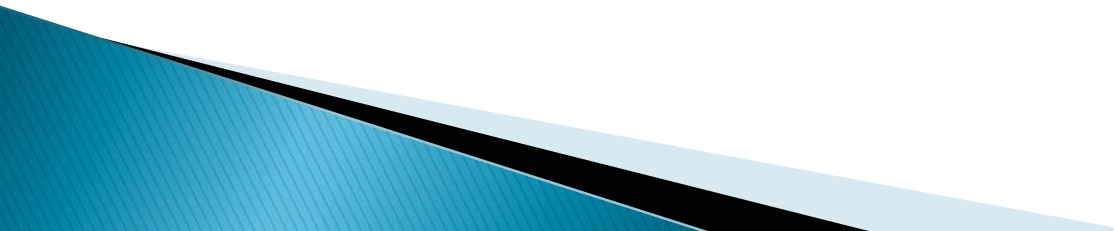


How to implement a carbohydrate restricted diet into your practice

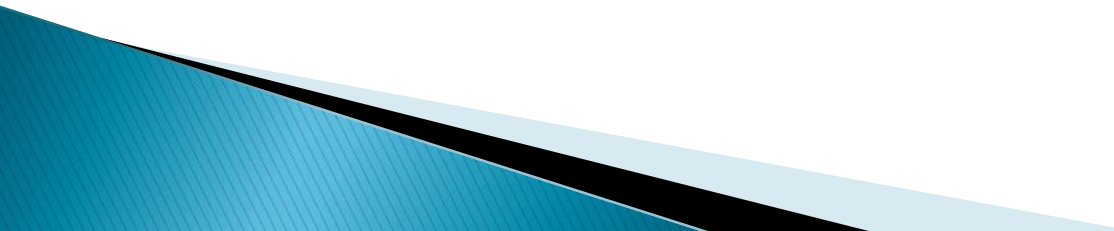
James R. Bailes Jr. MD.

Associate Professor of Pediatrics
Marshall University School of Medicine

Pediatric Obesity

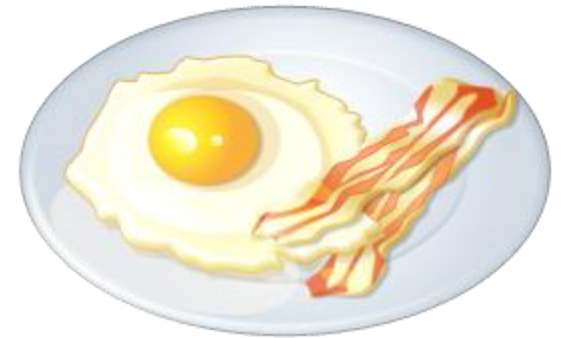
- ▶ Increasing in epidemic proportions
 - ▶ We MUST do something to REVERSE this trend or the healthcare system we have will crumble do to the added costs of diabetes
 - ▶ We MUST start now!!!
 - ▶ Who is a candidate for weight loss?.....
Any child with an elevated BMI for age
- 

Barriers we face in developing a successful weight loss program

- ▶ Education...
 - ▶ Lack of education?
 - ▶ Too much education?
 - ▶ **WRONG EDUCATION!!!**
- 

Barriers cont.

- ▶ Preconcieved ideas
calories vs. low-fat vs. low-carb



Barriers cont.

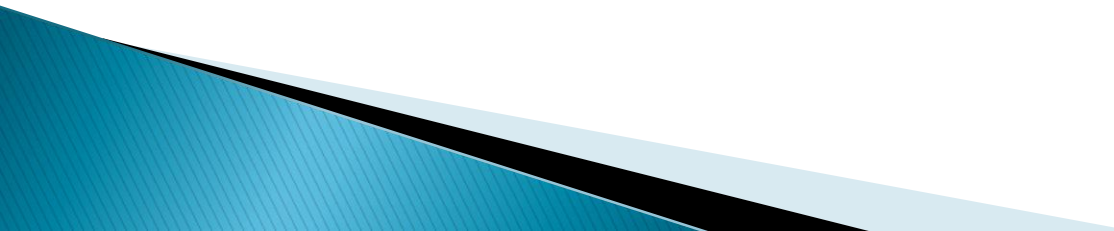
► Fat Free Fallacy



Barriers cont.



Barriers cont.

- ▶ 1973 American Heart Association statement
1988 US Surgeon General statement
 - ▶ If fat is bad then low-fat must be good
 - ▶ Americans went on a fat free binge and consumed more fat free foods in the 80's and 90's than the previous four decades combined
 - ▶ If fat was causing obesity then by eating less fat we should lose weight
- 

Barriers cont.

- ▶ Obesity Skyrocketed!!!
- ▶ Fat is not bad for you but being fat is!

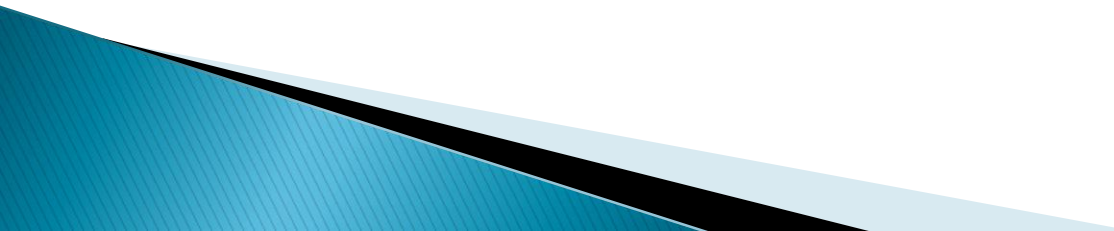


Barriers cont.

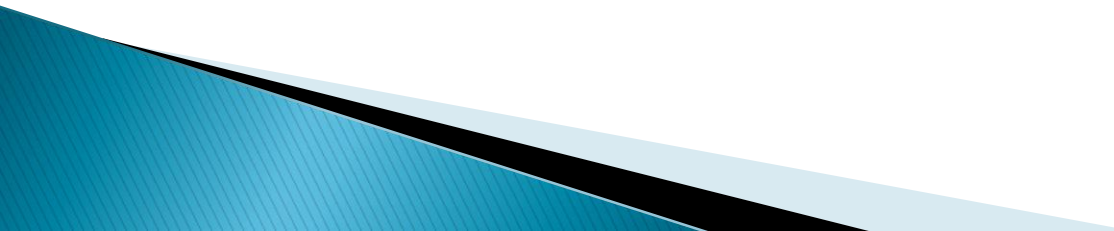
- ▶ Insulin stimulates fat storage
- ▶ We can lower our insulin secretion by lowering our carbohydrate intake
- ▶ This leads to fat breakdown and weight loss



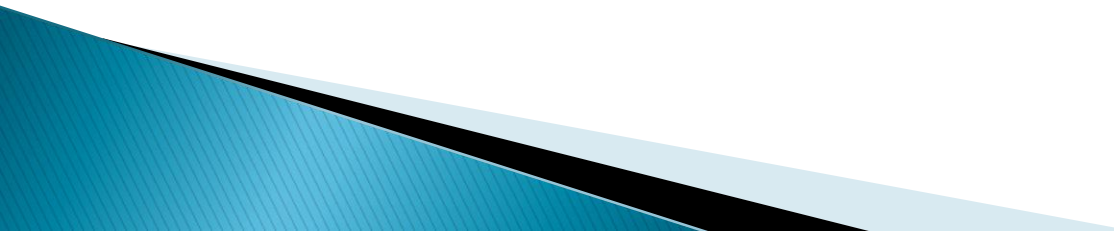
What is required?

- ▶ Program must be successful
 - ▶ Easy to explain
 - ▶ Easy to understand
 - ▶ Not too time consuming
- 

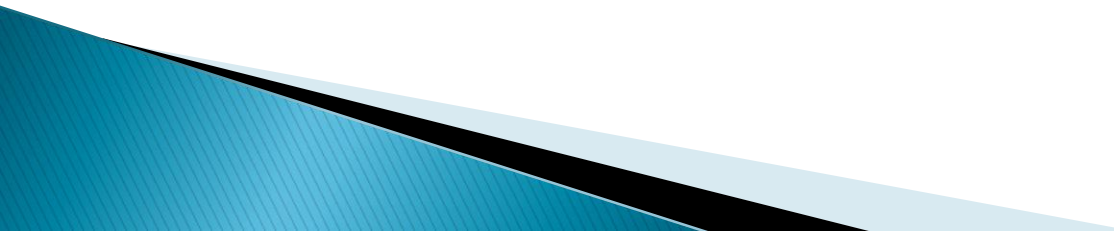
4 Simple Rules

- ▶ #1 KEEP TOTAL CARBS 30 g DAILY or LESS for WEIGHT LOSS
 - ▶ 60–80g daily younger kids or special circumstances
 - ▶ Carb counting book essential
 - ▶ Keep accurate food/carb diary... write down EVERYTHING
 - ▶ Unlimited protein and fat
 - ▶ Take a daily multivitamin
- 

4 Simple Rules cont.

- ▶ #2... DO NOT DRINK ANY CARBS
 - ▶ NO Milk, NO juice, NO sugar sweetened beverages
 - ▶ NO sports drinks unless ZERO carbs
 - ▶ What can we drink???..... WATER, sugar free drinks, diet sodas
- 

4 Simple Rules cont.

- ▶ #3 EAT WHEN HUNGRY BUT DO NOT EAT WHEN NOT HUNGRY
 - ▶ Movies
 - ▶ TV
 - ▶ Boredom
 - ▶ Parents must provide snack foods that are easy to grab and eat
- 

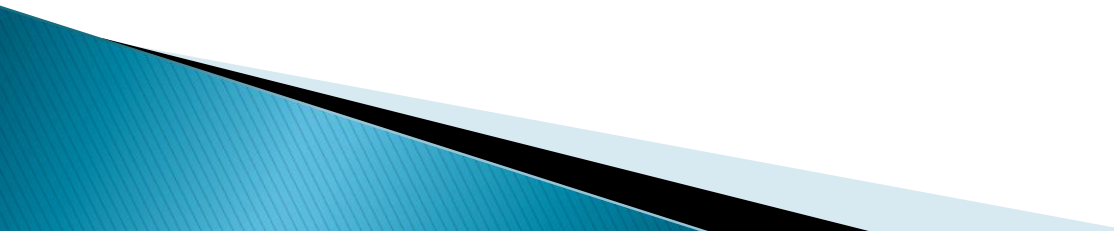
4 Simple Rules cont.

- ▶ EXERCISE DAILY!!!

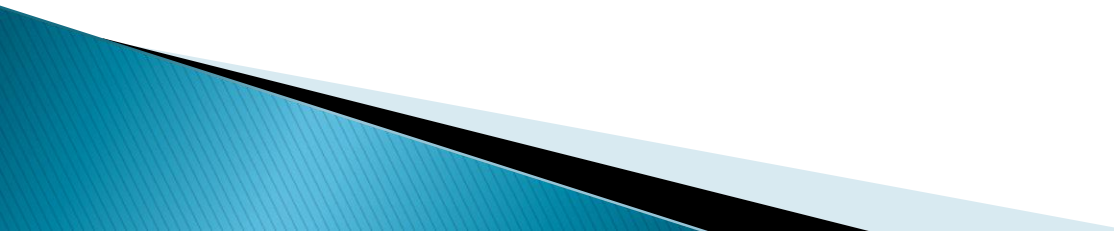


Team Approach Essential

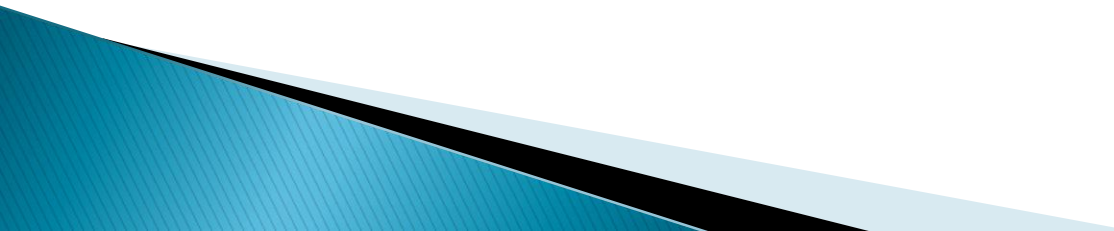
- ▶ EVERYONE MUST BE INVOLVED

- *Both parents -- Divorce
 - *Grandparents -- Sabotage
 - *Teachers -- Rewards
 - *Caretakers
 - *Friends
- 

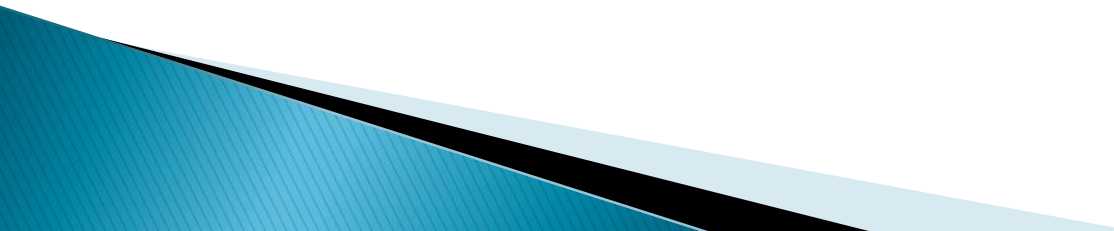
Follow-up mandatory

- ▶ Visits every 2 months
 - ▶ Look at results and praise if appropriate
 - ▶ Evaluate the plan
- First question addressed to child....What do you eat for breakfast? Lunch? school vs packed lunch?
- ▶ How many total carbs are you shooting for daily?
 - ▶ Are you keeping a journal?
- 

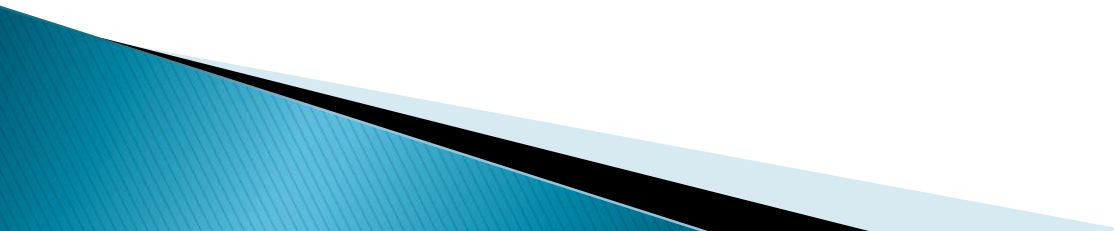
Follow up cont.

- ▶ Individualize each plan to foster compliance and stress long-term health
 - ▶ May need to increase total carbs to 60–80 g daily
 - ▶ 30 g may be unrealistic for some families
 - ▶ Overall much better compliance with a restricted carb diet compared to low-fat approach
- 

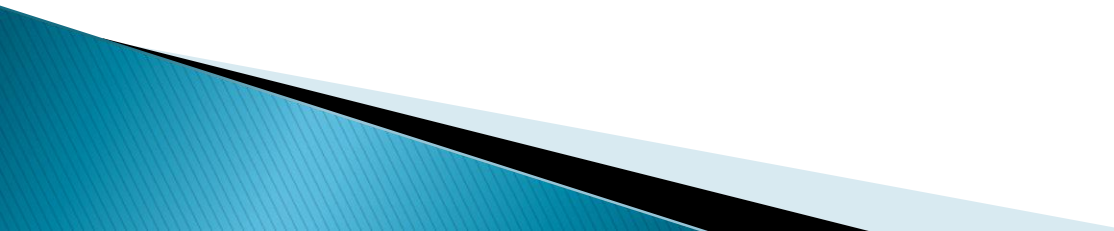
Follow up cont.

- ▶ If not losing weight then probably not compliant
 - ▶ Reinforce need for weight loss
 - ▶ Stress long-term health and preventing diabetes
 - ▶ Sugar alcohols?
 - ▶ Lack of understanding?
 - ▶ Honesty?
- 

Maintenance

- ▶ Individualize
 - ▶ Typically 60–100 g daily total carbs
 - ▶ May use 3 day increments
 - ▶ Keep journal
 - ▶ Very easy to lapse into old habits
 - ▶ Constant battle... need a plan
- 

Barriers we face in developing a successful weight loss program

- ▶ #1 TIME (most important) especially from the physician's standpoint
 - *needs to be 15–20 minutes or less
 - *includes time necessary to take a medical hx. and exclude endocrinologic causes of obesity ie. Cushing's disease, hypothyroidism
 - *includes time necessary to educate family
- 

Barriers cont.

▶ SCHOOLS

- *school lunch programs – very high carbohydrate content.... Tries to follow USDA food pyramid

- *parties... teachers often reward with candy

- *pop machines out 100% fruit juices in

Barriers cont.

- ▶ PICKY EATERS
definitely a challenge
autistic children
parents must be creative
kids won't starve to death

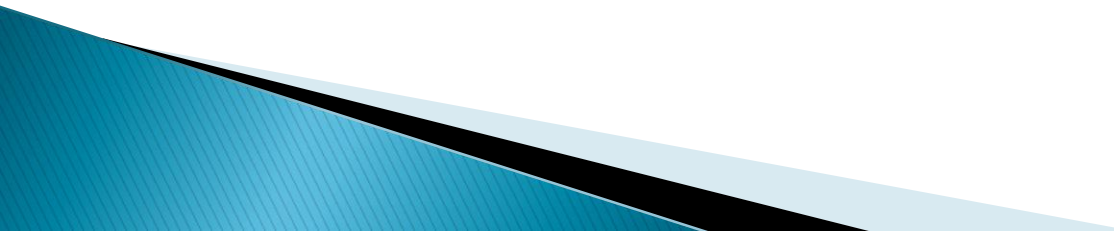
More barriers

- ▶ Not realizing child is overweight or falsely believing child will slim down with puberty
- ▶ 75 % of obese 10 –14 year olds will be obese in their twenties

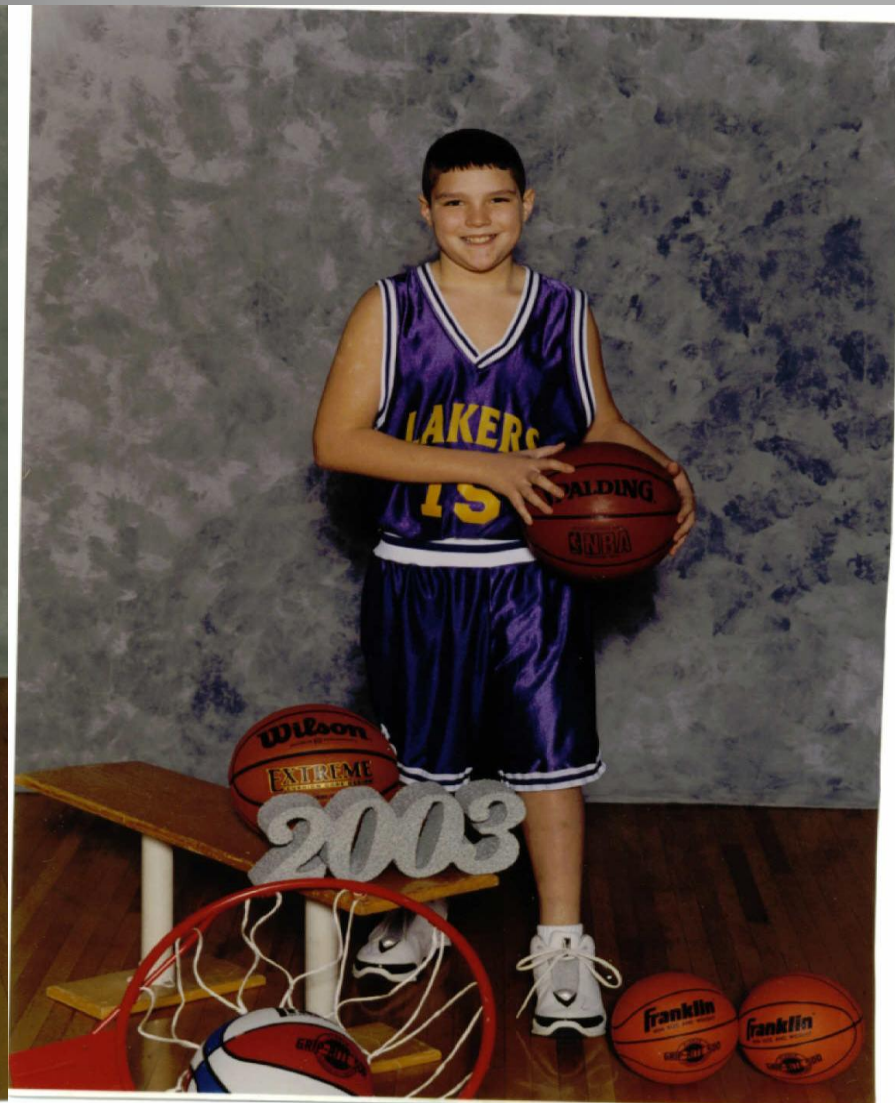
Barriers cont.

- ▶ EXPENSE

Bottom line

- ▶ It's easy to follow
 - ▶ It's easy to understand
 - ▶ It's safe
 - ▶ IT WORKS!!
- 

50 # over 6 months









PURPOSE

HYPOTHESIS

MATERIALS

DNA

MOLLY
LYON

HOW DOES DNA PROVE MY PARENTS ARE MY BIOLOGICAL PARENTS?



CO₂

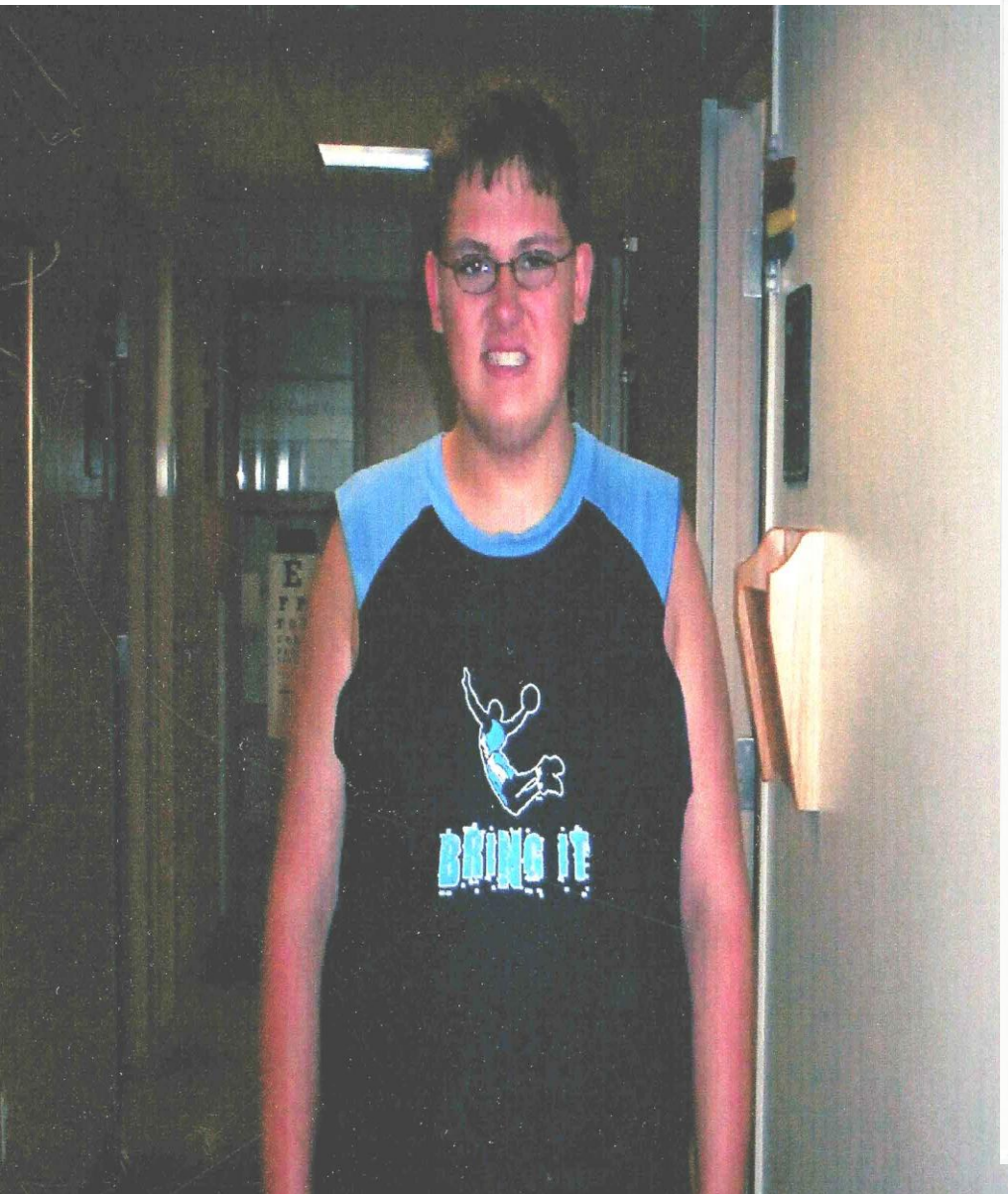
PURPOSE

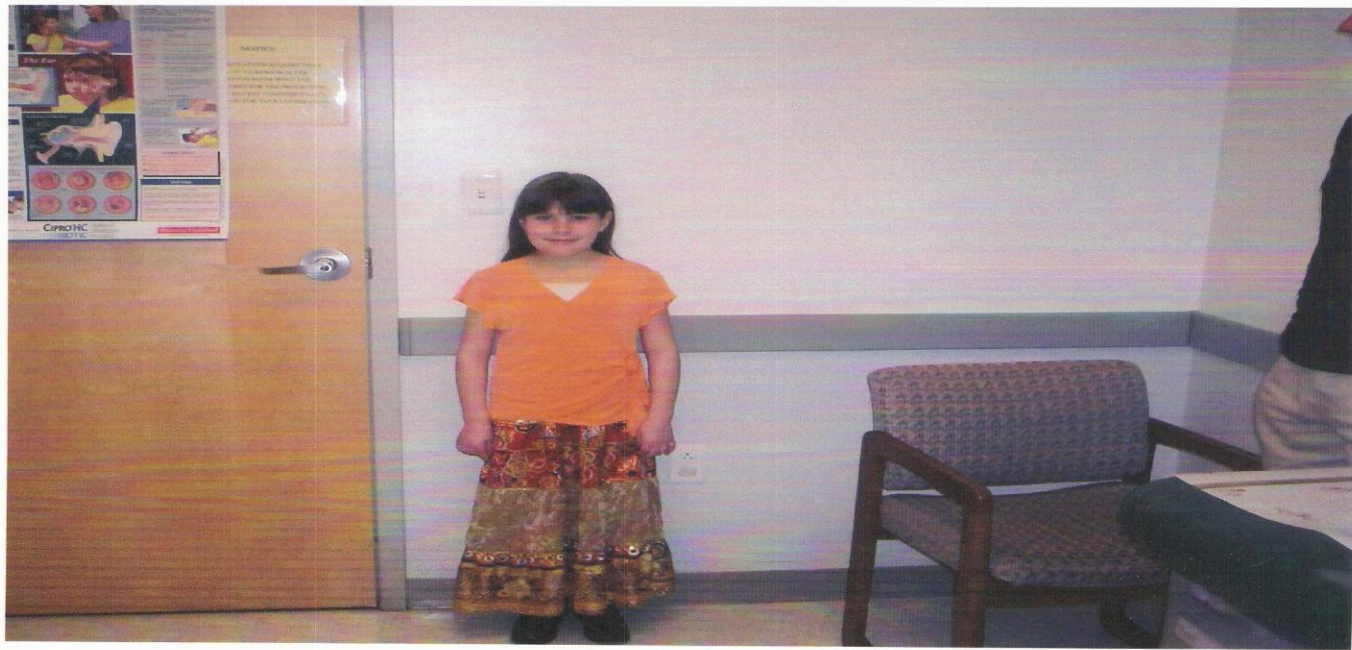
HYPOTHESIS

'03 4 10

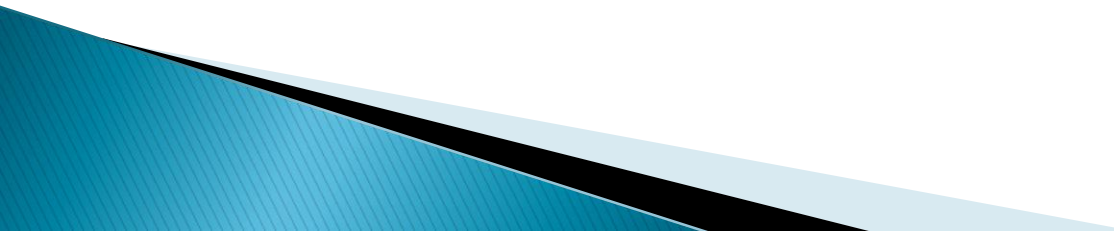




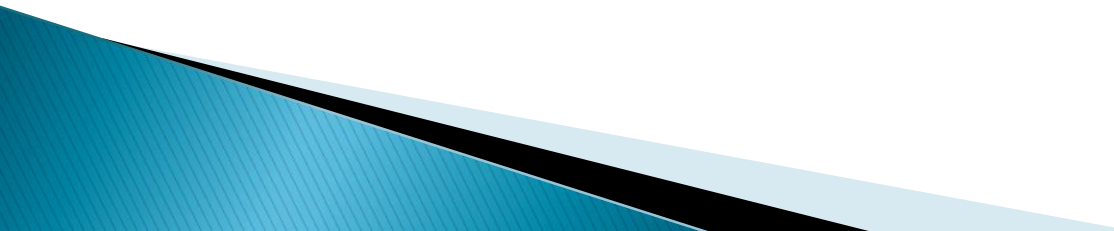




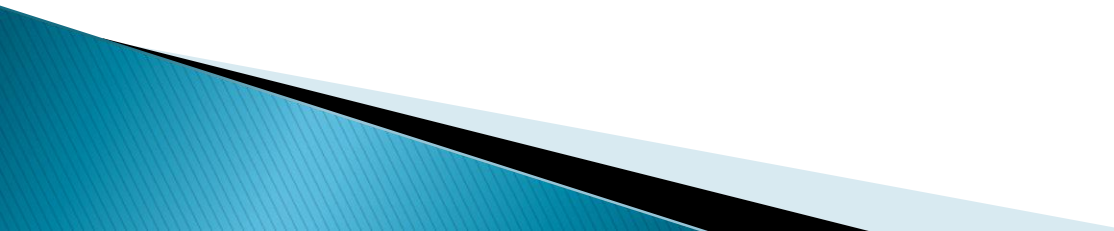
Case presentation

- ▶ 13 y.o. male evaluation of obesity
 - ▶ 5 ' 6" 288 # Acanthosis nigricans
 - ▶ BP 128/84 screening glucose 341
 - ▶ HgbA1c 9.8 dx. Diabetes type 2
 - ▶ Carb restrictions 30 g daily
- 

Case presentation

- ▶ 2 ½ months later
 - ▶ 24 # weight loss
 - ▶ BP 100/68
 - ▶ No glucose value over 105
 - ▶ A1c 5.8
 - ▶ Feels great!
- 

Case presentation

- ▶ 18 y.o. female with Down syndrome
 - ▶ 321# 4 ft 8 inches tall
 - ▶ right sided heart failure secondary to OSA
 - ▶ Carbohydrate restricted diet
- 

Case presentation

- ▶ To date has lost 135 #
- ▶ off all meds





THE END