

Disclaimer: These notes were taken by Ruth Dameron at the LMBBS Conference in Houston, June 17, 2006. There has been no attempt to verify accuracy. Do not quote the speakers based on these notes!

Kathleen Motil, M.D., Ph.D., Assoc Professor of pediatrics, USDA/ARS Children's Nutrition Research Center – has HANDOUT

Obesity

The new social epidemic

Most common and costly health problem in the U.S.

22% of U.S. 6-18 years old are obese

38% of Texan children (RHD note: apparently everything really IS bigger in Texas!)

Growth and Weight

Higher prevalence of obesity in BBS: 52% in BBS vs 20% in general population

obesity is defined as BMI greater than 30 kg/m² (BMI is Body Mass Index; kg is weight in kilograms; m is the square of the person's height in meters)

Obesity is associated with other issues that can shorten lifespan such as

- diabetes,
- high blood pressure.
- Hyperfibrinogenemia – tendency to blood clotting
- heart disease.

Leads to poor quality of life.

Cause in BBS – see slide – we don't really know

For the general population and many with BBS, they eat more than they should. Excessive intake of food in absence of good level of activity – gain weight. (This is not true of certain cases in BBS – babies in particular where weight gain is inexplicable)

BMR – basal metabolic rate – everything your body does to make it work

- expend energy to process the food we eat
- physical activity expends energy
- growth expends energy

The big players are dietary intake and physical activity.

One study she found re how BBS people burn their energy:

See Slide on Energy Balance in BBS

1500 to 1600 calories of food a day is not so much. But when people write down what they eat, they cheat. Still, this is a pretty low reported intake.

When we measure the resting metabolic rate – it's pretty normal. People with BBS are not victims of a low metabolic rate.

Physical activity of people with BBS was, however, lower than normal. If you keep up less activity, you end up with more body fat. (RHD note: the afternoon panel on personal experiences with weight management emphasized the value of exercise as well as eating meals that are high in nutrition, high in volume so you feel full, but low in calories – yes, that's possible.)

Intake and output have to balance better.

See slide on Energy Balance in BBS (the one after the table)

How do we develop good habits?

Check the BMI

Follow MyPyramid (see tool on the web)

How maintain physical activity – see exercise pyramid.

Calculating BMI

varies with age and gender; measures proportionality of height and weight

There is a formula

BMI = see equation on slide.

(Risk for overweight are kids in 85 to 95 th percentile of the ratio of their weight to their age. This is not BMI.)

MyPyramid

Servings for a 1400 calorie diet

www.usda.gov

Pull up MyPyramid which is an interactive tool

5 basic food groups and a good calorie range diet

Probably is also a hypothalamus issue for some. (RHD note: Dr. Nico said we still don't know if cilia have messed up the hypothalamus, if cilia have messed up the body in a way that the BBS patient does not sense the energy expended in consumption or the energy produced by the food. Clearly, something prevents the sensation of satisfaction – not sure what yet. This is why Vickie Weir recommends the Joanna Lund Healthy Exchanges recipes for *large* portions of food that taste good but have relatively few calories. This is one of the toughest areas for parents – children who are crazily persistent to find food when they clearly do not need it; babies who are not eating but are still gaining weight excessively; etc.)

Walking is a very important component of exercise.