

A Clinician's Perspective on Early Life Obesity Prevention 0-5 Years



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Overview

- Clinic based interventions ages 2-5 years
- The realities of clinical care ages 2-5 years
- Emerging opportunities in clinical care 0-5 years
- Potential partners for clinicians 0-5 years



Clinic-based interventions ages 2-5 years

- Virtually no solely clinic-based prevention interventions
- Some focus on treatment for overweight young children with motivational interviewing as a key component (Taveras et al., Arch Ped Adolesc Med, 2011; Resnicow et al., Pediatrics, 2015)

TABLE 4 Two-Year BMI Percentile and BMI Percentile Change by Study Group

Study Group	<i>n</i>	Year 2 BMI Percentile ^a (SE)	BMI Percentile Difference ^{a,b} (SE)
Group 1 - Usual Care	158	90.3 ^c (0.94)	1.8 ^c (0.98)
Group 2 - PCP	145	88.1 (0.94)	3.8 (0.96)
Group 3 - PCP + RD	154	87.1 ^c (0.92)	4.9 ^c (0.99)





The Role of the Pediatrician in Primary Prevention of Obesity

Stephen R. Daniels, MD, PhD, FAAP, Sandra G. Hassink, MD, FAAP, COMMITTEE ON NUTRITION

DOI: 10.1542/peds.2015-1558

- “Pediatricians should use a longitudinal, developmentally appropriate life-course approach to help identify children early on the path to obesity and base prevention efforts on family dynamics and reduction in high-risk dietary and activity behaviors.”



AAP Recommendations

- Identify Children at Risk – growth charts, prenatal, child, and behavioral risk factors
- Educate – screen for knowledge about:
 - Healthy diet (and where to find it), portion sizes
 - Risk of sedentary behaviors
 - WIC and SNAP
 - Online resources, e.g. ChooseMyPlate.gov
- Manage Food and Activity Environment
 - Suggest healthy alternatives
- Self Monitoring
- Family Focused



Realities - Opportunities

- High access to children and parents/guardians
- Trusted source of health information
- Can link families to community resources



Realities of clinical care - Barriers

- Time and space constraints – availability of clinic rooms, short length of appointments
- Extra travel for families if more visits
- Physician care is relatively expensive, reimbursement for obesity-related care is poor
- Lack of knowledge, experience in preventing obesity for young children
- Providers often believe parents aren't concerned about high weight for infants & toddlers



Realities of clinical care – other priorities

- Bright Futures, 3rd edition, 2 year well child visit

PRIORITIES FOR THE VISIT

The first priority is to attend to the concerns of the parents. In addition, the Bright Futures Early Childhood Expert Panel has given priority to the following topics for discussion in this visit:

- Assessment of language development (how child communicates, expectations for language)
- Temperament and behavior (sensitivity, approachability, adaptability, intensity)
- Toilet training (what have parents tried, techniques, personal hygiene)
- Television viewing (limits on viewing, promotion of reading, promotion of physical activity and safe play)
- Safety (car safety seats, parental use of safety belts, bike helmets, outdoor safety, guns)

- None of the visits 2 through 4 years list diet or nutrition as a priority!



Bright Futures 2 Year Visit



Bright Futures Previsit Questionnaire 2 Year Visit

For us to provide you and your child with the best possible health care, we would like to know how things are going. Please answer all of the questions. Thank you.

What would you like to talk about today?

Do you have any concerns, questions, or problems that you would like to discuss today?

We are interested in answering your questions. Please check off the boxes for the topics you would like to discuss the most today.

Your Talking Child	<input type="checkbox"/> How your child talks	<input type="checkbox"/> Reading together
How Your Child Behaves	<input type="checkbox"/> Praising your child	<input type="checkbox"/> Helping your child express feelings
	<input type="checkbox"/> Playing with others	<input type="checkbox"/> Helping your child follow directions
Toilet Training	<input type="checkbox"/> Signs your child is ready to potty train	<input type="checkbox"/> Helping your child potty train
Your Child and TV	<input type="checkbox"/> How much TV is too much TV	<input type="checkbox"/> Learning activities other than TV
Safety	<input type="checkbox"/> Car safety seats	<input type="checkbox"/> Bike helmets
	<input type="checkbox"/> Being safe outside	<input type="checkbox"/> Gun safety

Questions About Your Child

Have any of your child's relatives developed new medical problems since your last visit? If yes, please describe: ☐ Yes ☐ No ☐ Unsure

Hearing	Do you have concerns about how your child hears?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Unsure
	Do you have concerns about how your child speaks?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Unsure
	Do you have concerns about how your child sees?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Unsure
Vision	Does your child hold objects close when trying to focus?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Unsure
	Do your child's eyes appear unusual or seem to cross, drift, or be lazy?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Unsure
	Do your child's eyelids droop or does one eyelid tend to close?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Unsure
Lead	Have your child's eyes ever been injured?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Unsure
	Does your child have a sibling or playmate who has or had lead poisoning?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Unsure
	Does your child live in or regularly visit a house or child care facility built before 1978 that is being or has recently been (within the past 6 months) renovated or remodeled?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Unsure
Tuberculosis	Does your child live in or regularly visit a house or child care facility built before 1950?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Unsure
	Was your child born in a country at high risk for tuberculosis (countries other than the United States, Canada, Australia, New Zealand, or Western Europe)?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Unsure
	Has your child traveled (had contact with resident populations) for longer than 1 week to a country at high risk for tuberculosis?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Unsure
Dyslipidemia	Has a family member or contact had tuberculosis or a positive tuberculin skin test?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Unsure
	Is your child infected with HIV?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Unsure
	Does your child have parents or grandparents who have had a stroke or heart problem before age 55?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Unsure
Anemia	Does your child have a parent with elevated blood cholesterol (240 mg/dL or higher) or who is taking cholesterol medication?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Unsure
	Do you ever struggle to put food on the table?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Unsure
	Does your child's diet include iron-rich foods such as meat, eggs, iron-fortified cereals, or beans?	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input type="checkbox"/> Unsure
Oral Health	Does your child have a dentist?	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input type="checkbox"/> Unsure
	Does your child's primary water source contain fluoride?	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input type="checkbox"/> Unsure

Does your child have any special health care needs? ☐ No ☐ Yes, describe:

Have there been any major changes in your family lately? ☐ Move ☐ Job change ☐ Separation ☐ Divorce ☐ Death in the family ☐ Any other changes?

Does your child live with anyone who uses tobacco or spend time in any place where people smoke? ☐ No ☐ Yes



Bright Futures Previsit Questionnaire 2 Year Visit

Your Growing and Developing Child

Do you have specific concerns about your child's development, learning, or behavior? ☐ No ☐ Yes, describe:

Check off each of the tasks that your child is able to do.

<input type="checkbox"/> Stacks 5 or 6 small blocks	<input type="checkbox"/> Throws a ball overhand	<input type="checkbox"/> When talking, puts 2 words together, like "my book"
<input type="checkbox"/> Kicks a ball	<input type="checkbox"/> Names 1 picture such as a cat, dog, or ball	<input type="checkbox"/> Turns book pages 1 at a time
<input type="checkbox"/> Walks up and down stairs 1 step at a time alone while holding wall or railing	<input type="checkbox"/> Jumps up	<input type="checkbox"/> Plays pretend
<input type="checkbox"/> Can point to at least 2 pictures that you name when reading a book	<input type="checkbox"/> Copies things that you do	<input type="checkbox"/> Plays alongside other children
	<input type="checkbox"/> Follows 2-step command	



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Bright Futures 2 Year Visit

ACCOMPANIED BY/INFORMANT		PREFERRED LANGUAGE	DATE/TIME	Name
DRUG ALLERGIES		CURRENT MEDICATIONS		
WEIGHT (%)	HEIGHT (%)	HEAD CIRC (%)	BMI (%)	TEMPERATURE
BIRTH DATE		AGE		

History

☐ Previsit Questionnaire reviewed

☐ Child has a dental home

Concerns and questions ☐ None ☐ Addressed (see other side)

Follow-up on previous concerns ☐ None ☐ Addressed (see other side)

Interval history ☐ None ☐ Addressed (see other side)

☐ Medication Record reviewed and updated

Physical Examination

☐ EYES (red reflex, corneal/retrocorneal test)

☐ TEETH (caries, white spots, staining)

☐ NEUROLOGIC (coordination, language, socialization)

☐ HEART

☐ ABDOMEN

☐ GENITALIA

☐ MOUTH AND THROAT

☐ NECK

☐ LUNGS

☐ HEAD/FONTANELLE

☐ EARS/APPEARS TO HEAR

☐ NOSE

☐ MALE/TESTES down

☐ FEMALE

☐ EXTREMITIES/hips

☐ BACK

☐ SKIN

Abnormal findings and comments

Social/Family History

See Initial History Questionnaire. ☐ No interval change

Family situation

Parents working outside home: ☐ Mother ☐ Father

Child care: ☐ Yes ☐ No Type _____

Changes since last visit _____

Review of Systems

See Initial History Questionnaire and Problem List.

☐ No interval change

Changes since last visit _____

Nutrition

Elimination: ☐ Yes ☐ No

Toilet training: ☐ Yes ☐ In process

Sleep: ☐ NL

Behavior/Temperament: ☐ NL

Physical activity

Play time (60 min/d) ☐ Yes ☐ No

Screen time (<2 h/d) ☐ Yes ☐ No

Development

☐ Autism-specific screen ☐ NL Tool _____

Developmental Surveillance (if not reviewed in Previsit Questionnaire)

☐ SOCIAL-EMOTIONAL

☐ COMMUNICATIVE

☐ PHYSICAL DEVELOPMENT

☐ COGNITIVE

• Copies things that you do

• Plays pretend

• Plays alongside other children

• When talking, puts 2 words together (eg, "toy book")

• Walks up and down stairs

• Names 1 picture (eg, cat, dog, ball)

• Follows 3-step commands

• Stacks small blocks (5-6)

• Kicks a ball

• 1 step at a time alone while holding wall or railing

• Throws a ball overhand

• Turns book pages 1 at a time

Assessment

☐ Well child

Anticipatory Guidance

☐ Discussed and/or handout given

☐ ASSESSMENT OF LANGUAGE DEVELOPMENT

• Model appropriate language

• Daily reading

• Following 1-3-step commands

• Listen and respond to child

☐ TOILET TRAINING

• When child is ready

• Plan for frequent toilet breaks

• Personal hygiene

☐ TV VIEWING

• Limit TV viewing to no more than 1-2 hours/day

• TV alternatives: reading, games, singing

• Encourage physical activity

☐ SAFETY

• Car safety seat

• Bike helmet

• Supervise outside

• Guns

Plan

Immunizations (See Vaccine Administration Record.)

Laboratory/Screening results: ☐ Lead _____

☐ Referral to _____

Follow-up/Next visit _____

☐ See other side

Print Name

Signature

PROVIDER 1

PROVIDER 2



Bright Futures Parent Handout 2 Year Visit

Here are some suggestions from Bright Futures experts that may be of value to your family.

Your Talking Child

- Talk about and describe pictures in books and the things you see and hear together.
- Parent-child play, where the child leads, is the best way to help toddlers learn to talk.
- Read to your child every day.
- Your child may love hearing the same story over and over.
- Ask your child to point to things as you read.
- Stop a story to let your child make an animal sound or finish a part of the story.
- Use correct language; be a good model for your child.
- Talk slowly and remember that it may take a while for your child to respond.

Your Child and TV

- It is better for toddlers to play than watch TV.
- Limit TV to 1-2 hours or less each day.
- Watch TV together and discuss what you see and think.
- Be careful about the programs and advertising your young child sees.
- Do other activities with your child such as reading, playing games, and singing.
- Be active together as a family. Make sure your child is active at home, at child care, and with sitters.

Safety

- Be sure your child's car safety seat is correctly installed in the back seat of all vehicles.
- All children 2 years or older, or those younger than 2 years who have outgrown the rear-facing weight or height limit for their car safety seat, should use a forward-facing car safety seat with a harness for as long as possible, up to the highest weight or height allowed by their car safety seat's manufacturer.

- Everyone should wear a seat belt in the car. Do not start the vehicle until everyone is buckled up.
- Never leave your child alone in your home or yard, especially near cars, without a mature adult in charge.
- When backing out of the garage or driving in the driveway, have another adult hold your child a safe distance away so he is not run over.
- Keep your child away from moving machines, lawn mowers, streets, moving garage doors, and driveways.
- Have your child wear a good-fitting helmet on bikes and trikes.
- Never have a gun in the home. If you must have a gun, store it unloaded and locked with the ammunition locked separately from the gun.

Toilet Training

- Signs of being ready for toilet training
 - Dry for 2 hours
 - Knows if she is wet or dry
 - Can pull pants down and up
 - Wants to learn
 - Can tell you if she is going to have a bowel movement
- Plan for toilet breaks often. Children use the toilet as many as 10 times each day.
- Help your child wash her hands after toileting and diaper changes and before meals.
- Clean potty chairs after every use.
- Teach your child to cough or sneeze into her shoulder. Use a tissue to wipe her nose.
- Take the child to choose underwear when she feels ready to do so.

How Your Child Behaves

- Praise your child for behaving well.
- It is normal for your child to protest being away from you or meeting new people.
- Listen to your child and treat him with respect. Expect others to do well.
- Play with your child each day, joining in things the child likes to do.
- Hug and hold your child often.
- Give your child choices between 2 good things in snacks, books, or toys.
- Help your child express his feelings and name them.
- Help your child play with other children, but do not expect sharing.
- Never make fun of the child's fears or allow others to scare your child.
- Watch how your child responds to new people or situations.

What to Expect at Your Child's 2½ Year Visit

We will talk about

- Your talking child
- Getting ready for preschool
- Family activities
- Home and car safety
- Getting along with other children

Poison Help: 1-800-222-1222

Child safety seat inspection:
1-866-SEATCHECK; seatcheck.org



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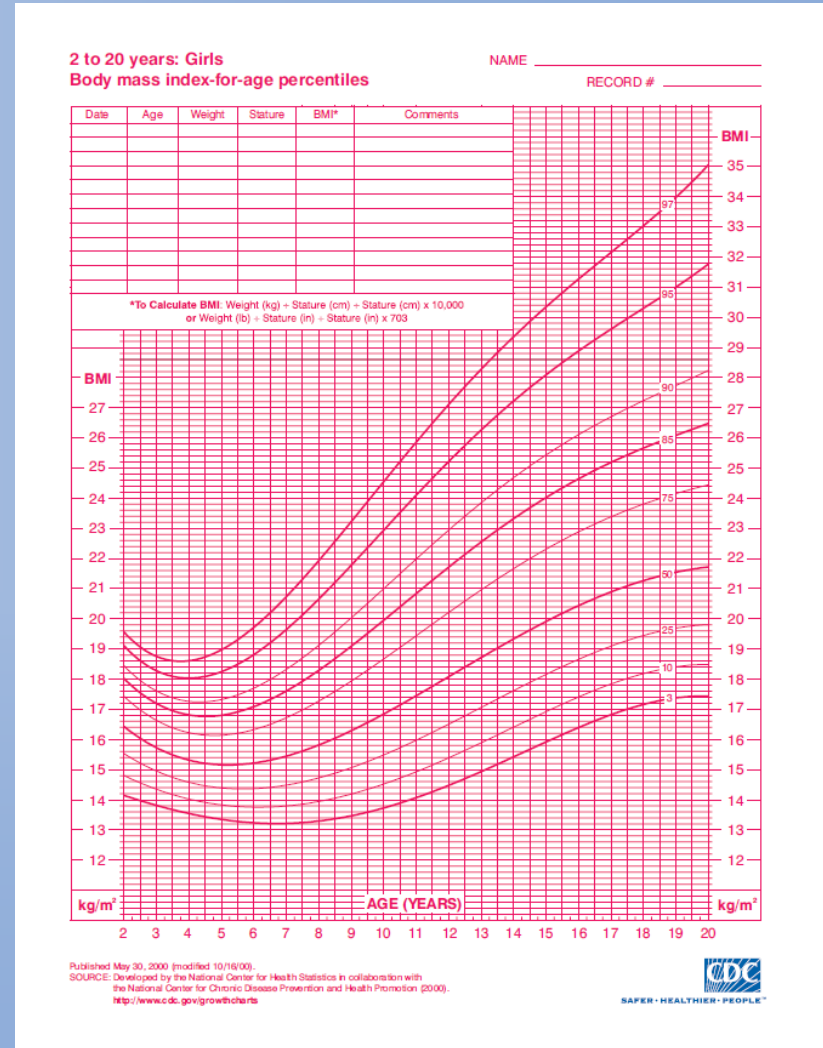
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WELL CHILD/2 years



Growth Charts

- Plotting BMI percentile on growth charts inconsistent in Pediatrics historically, but appears to be increasing. (Perrin EM, J Pediatrics, 2004; Hillman JB, Public Health Rep 2009)
- Weight-for-length chart <2 years infrequently used though AAP policy statement noted 95th percentile defines “overweight”.



BUT, there is hope! – Quality Improvement

- Quality improvement (QI) – “systematic and continuous actions that lead to measurable improvement in health care services and the health status of targeted patient groups.”
 - QI “movement” was initially more focused on the inpatient environment.
 - Electronic Health Records (EHR) have often been viewed negatively by primary care physicians, but optimally they can improve efficiency and quality of care.



Quality Improvement for Obesity Prevention

- High weight-for-length, high BMI could display as alarm values
 - Rapid infant weight gain too?
- Pre-visit or waiting room surveys could be automatically data entered to identify obesogenic behaviors, minimizing clinician assessment times
 - Early introduction of solids
 - Prolonged bottle use
 - Fruit juice, Sugar-sweetened beverage consumption
 - Lack of fruits and vegetables
 - TV time



Changing the Paradigm? Centering Care

- Model of group healthcare with 3 main components:
 - Assessment
 - Education
 - Support
- Has been disseminated predominantly for prenatal care, but has moved into the pediatric well child care area though limited pediatric research ...



Centering Care

- Typical session 90-120 minutes, 8-9 sessions first year after birth, 6-7 parent-baby dyads
 - Brief individual assessment with provider
 - Self-care activities
 - Self-assessment tools to examine relevant topics
 - Informal discussion with other participants
 - Facilitated discussion by care provider on health topics



Centering Care

- High patient Satisfaction, forms support network
- Adaptation of this being tested at NYU with low-income Latino participants, groups led by Nutritionist / Child Developmental specialist



Partnering

- WIC – can communication be improved?
- Dietitians – early intervention?
- Community resources
 - Farmer's markets
- Obstetricians/Childbirth Education
 - Breastfeeding discussion during pregnancy
 - Promote appropriate gestational weight gain, smoking cessation
- Communication with childcare on dietary recommendations (e.g. beverages, snacks)



Partnering – Example

- NET-Works trial: RCT with intervention that integrates home, community, primary care, and neighborhood strategies (Sherwood et al, Contemporary Clinical Trials 2013)
 - Goal to promote healthful eating, activity patterns, and body weight among low-income, racially/ethnically diverse preschool-age children
 - Brochure helps primary care providers communicate about BMI percentile, healthful eating, activity
 - PCP role as trusted resource is to reinforce education from others involved in intervention

