

NYCNEN- Planting the Seed for Health: The Science, Practice and Policy of Infant Nutrition

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Pediatric Nutrition, dispelling common myths and current recommendations

- Maternal diet & Fetal development: prenatal vitamin, choline, EPA/DHA, maternal lead exposure
 - Choline: strong research that related to neurologic development of the fetus.
 - AI for choline 425 mg/day for women aged 19 and older.
 - AI for pregnant is 450 mg/d; 550 mg/d for lactating women
 - Allergens: unless the mother has known allergy, no evidence to avoid common allergens during breastfeeding or lactating
 - Maternal diet: affected most by pungent foods; curry, garlic, etc. Tastes affect the amniotic fluid, if sweet the fetus takes in my fluid to prepare for breast milk
 - 3rd trimester: fetus taking 500mL-1L of amniotic fluid per day
 - Taste buds develop around 13-15 weeks
 - Want mother's diet to match their cultural diet to prepare the babies for typical meals
- Microbiome
 - Vaginal delivery – normal development of immunity, via C-section abnormal delivery
 - If swabbed with vaginal secretion intervention, might have more normal and healthful microbiome.
- Breastfeeding
 - No restrictions; only alcohol – don't have to avoid, just timed
 - Focus should be on variety in diet –NOT restriction
 - Produce breast milk and still have a nourished body
 - Energy needs are even higher during lactation than third trimester
 - Lactation phase--- higher micronutrient, calorie and protein needs
 - Mammary glands draw from diet and stores, so if diet is inadequate, the mother is at nutrition risk
 - FA profile has major effect on breast milk – recommend varied fat diet
 - Vitamin D levels affect
- Infant Diet
 - Supplements—found in most infant formulas
 - DHA
 - Probiotics
 - Recommend cycling probiotic, take probiotic 6-8 weeks and then change it. Target the strain to the population
 - Probiotics won't work if prebiotics are not in the diet
 - Breastfed has both, so typically do not recommend supplement unless indication such as antibiotic use, etc
- Introduction to solids

- AAP: 6 months introduction
- Early introduction can cause myriad of problems; aspiration, food aversion, too much/not enough calories, increase risk of obesity, GI issues
- No benefit in solids earlier, sleeping longer hours
- Strong tongue thrust --- indication not ready for solids
- Important to understand culturally preferences and practices
- Try to prolong clients, recommend without insisting
- #1 goal: KEEP CHILD SAFE
- Breastfed vs. Formula fed
 - Maternal stores of iron depleted by 6 mos, so needed from diet if breast fed
 - Baby food does not need to be bland food—introduce culturally relevant foods
- Introduction to solids
 - Traditional purees
 - More work and more bland
 - Less potential for self-regulation
 - Baby led weaning: skip purees, infant led, handheld food, developmentally ready
 - Can be slower process at state, since baby is self-feeding
 - Chewing may not be developmentally appropriate
 - Family shared mealtimes and foods
 - Risk of gagging, some is natural (gag-reflex is developed enough)
 - Recommends parents to take CPR prior to introduction to solids
 - More varied
 - Helps foster family meal times
 - Less research
 - Assess family and culture before recommendation
 - Best solution is combination:
 - Focus: variety, consistency, flavor
 - Recommended open water cup
 - Meal time
 - Food rest will help keep body up right
 - Not recommended removing them from the table
 - Under 1 y.o feed on demand
 - Toddler: routine and set meal times
 - Common issues
 - Do not advance consistency of texture from thinner to thicker to more chewable
 - Ex: pouches are not good, can't see what eating
 - Lack of variety
 - Food neophobia
 - Talk about food outside of meal
 - Appropriate vocabulary around food – only positivity
 - Might need to guide parents
- CONCLUSION: do not judge the parent you're working with, a victory is not them following complete recommendation. It is follow-up, asking questions, etc.
 - Flexibility is extremely important
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Christina McGeough MPH, RD, CDN, CDE, CLC: Lactation Coach/Nutritionist at Forest Hills Wellness, Nutritionist at Maternal Fetal Medicine Associates

Prenatal and Infant Feeding: Recommendations in Action to Help Mom and Baby Bloom

- Often times, pre-conception care is not a focus
 - Intergenerational effect and genetics play a big role and influence maternal health
- Practical Guidelines (Promote Optimal Nutrition in Pregnancy)
 - BMI not focused on during pregnancy, BMR can be helpful for individualized nutrition counseling
 - Connect physiology and nutrition with physical appearance
 - Utilizing visuals, such as grocery list or even going to store with client
 - Healthy plate is useful for person who might have health literacy issues – helpful starting point
 - Connecting calories and protein to THEIR needs – individualize needs
 - Important time to anchor population for future
 - Weigh status and risk
 - BMI only tells part of the story
 - Understanding their body—no one size fits all
 - Establish what they want in these sessions
 - Growth scans can be useful, emphasis does not have to be on weight charts
 - Explanation on where that weight goes, use education as a tool
 - Calorie Needs by Trimester and PPW status
 - Do not want to promote ketosis in pregnancy even with gestational diabetes
 - Not evidence based
 - Recommendations should always be culturally appropriate
- Common Ailments
- Baby is here.. How do I feed my baby?
 - Look at baby—are they comfortable, agitated?
 - Look for wet diapers
 - Give client what they're acting for – show what normalcy is for either breastfeeding or formula feeding
 - Highly recommends CLC source by

Ali Hard, MS, RD: Senior Associate for Federal Government Affairs at National WIC Association

The Politics & Policy of the 2020 Dietary Guidelines: Pregnancy & birth through 24 months

- 2020-2025: TBA, coming soon – will address this population
- Center for Nutrition Policy & Promotion: basis is educational messages for the public, make sure all messaging is aligned with dietary guidelines from any agency
- 2020 Dietary Guidelines Process
 - Committee Members Request – actively happening
 - Recommendations but do not determine ultimate guidelines
 - 5 public hearings – BEST opportunity for engaging
 - Public comment in person and federal register
- Politics of DGA
 - Sustainability controversy – came out of final guidelines
 - Evidence grading
 - Determine what studies are actually considered
 - Effort to limit grade 1: strong evidence – this is a problem in nutrition research
 - Difficult to get ideal study designed, very difficult RCT

- No conflicting studies, BIG problem especially if industry funded studies
 - Dependent on circumstances
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 - Big Fat Debate
 - Blocking recs for implementation
- Next Steps
 - Committee announced early 2019
 - Can watch public hearing and engage in model comments
 - Engaging with your members of Congress

Q&A:

- Vaginal delivery vs. C-section microbiome? Research still happening, infants will be followed throughout life; allergy, obesity, insulin resistance, cancer, other health implications
- Spices, herbs, salt for infants? Yogurt and cheese can be introduced, milk at 1 y/o. Milk can be damaging to kidneys. Salt 600-800 mg/day, avoiding processed meats and high sodium contents, be aware of portion sizes. Typical toddler is getting enough protein (15-20 g/day)
- Maternal mortality and equity, how does that play a role in work?
 - Ali Hard- WIC: indicating risk factors and guidelines for disease,
 - Christina McGeough: culturally appropriate care, in terms of education, hours, languages available. Intention of the providers and clinicians that reflect the community
 - Pegah Jalali: important to treat everyone the same, connect before food and then talk about the food. Specific recommendations are important, they write their own plan. Can be simple, example what they are having for breakfast tomorrow
 - Important to know assess for your population
- Environmental exposures/contaminants, are those going to be put into practice? AAP has new guidelines in regards to additives
 - Hopefully will be addressed in 2020 DGA since AAP addressed it
 - Empower clients to read labels, be informed, what you ask your grocers to provide
 - Environmental working group website
 - Center for Science working interest
 - Empower, even if you don't have an answer
 - Always with a grain of salt, clients are different, assess the major issue before scaring them