Infant and Toddler Nutrition

Office of the State Superintendent (OSSE) Infants & Toddlers Conference, 2016

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Supporting the Breastfeeding Mother

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Presentation Developed by the Texas Department of State Health Services
Presentation Objectives:

• Supporting Breastfeeding Mothers
• Infant & Child Nutrition
• Food Safety
• Nutrition for Child Care Providers
American Academy of Pediatrics
Breastfeeding Policy Statement

• Breastfeeding is best
• Breastfeed exclusively for the first 6 months
• Breastfeed at least through the first 12 months of age and thereafter as long as “mutually desired” by mother and infant

• *World Health Organization (WHO) recommends at least 2 years.
AAP Recommendations

• Provide breast milk even when mom and child are separated
• Encourage family & community support
• Media should portray breastfeeding as the norm
• Employers provide space and time to accommodate milk expression
Healthy People 2020 Goals

- 82% breastfeeding initiation
- 61% continuing to 6 months
- 34% at 1 year
- 46% Exclusively through 3 months
- 26% Exclusively through 6 months
**Women in the Workforce**

- Mothers are the fastest-growing segment of the workforce.

- 70% of employed mothers with children younger than 3 years work full time.

- One-third of these mothers return to work within 3 months.

- Two-thirds return within 6 months.

- Lower rates of breastfeeding initiation and shorter duration.
Child Care Settings: How to Support Breastfeeding

- Design child care facility with equipment and furnishings to support breastfeeding
- Welcoming atmosphere that encourages mothers to initiate and continue breastfeeding
- Provide accurate basic breastfeeding information
- Refer for skilled breastfeeding support
- Designate a space for the safe expression and storage of human milk
Child Care Settings: How to Support Breastfeeding

- Feed infant/toddler human milk in alternative devices (e.g., cups or spoons) when parents request it
- Provide space for mothers to breastfeed their children on-site
- Environment that fosters the formation of parent support groups and the ability to share information
- Empower families to advocate at their workplaces for policies that support breastfeeding

Breastfeeding reduces babies’ risk of:
• Infections and stomach problems
• Allergic reactions and asthma
• SIDS
• Obesity and diabetes
• Childhood leukemia
• Loss of I.Q. potential – especially preemies

Breastfeeding benefits the babies’ by:
• Providing baby with the most easily digested food
• Promoting babies’ healthy growth and development
• Transmitting mother’s immunities to baby

Breastfeeding Benefits Child Care Centers

• Infants are more resistant to illness
• Diapers have less odor
• Baby is happier
• Breastfed baby spit up less
Increased Risks for Babies of Employed Mothers

- Infants in child care centers are at 69% increased risk of hospitalization for respiratory infection (Kamper 2006)

- Being in a child care setting doubles odds of needing antibiotics by age 1.5-5 years (Dubois 2005)

- Exclusive breastfeeding at least 4 months had protective effect for 2.5 years

- Among infants of employed mothers who were never sick during the first year, 86% were breastfed (Cohen 1994)
Ten Steps to Breastfeeding-Friendly Child Care Centers

• Step 1: Designate an individual or group who is responsible for development and implementation of the 10 steps.

• Step 2: Establish a supportive breastfeeding policy and require all staff be aware of and follow the policy.

• Step 3: Establish a supportive worksite policy for staff members who are breastfeeding.

• Step 4: Train all staff so that they are able to carry out breastfeeding promotion and support activities.

• Step 5: Create a culturally appropriate breastfeeding friendly environment.
Ten Steps to Breastfeeding-Friendly Child Care Centers

• Step 6: Inform expectant and new families and visitors about your center’s breastfeeding friendly policies.

• Step 7: Stimulate participatory learning experiences with the children, related to breastfeeding.

• Step 8: Provide a comfortable place for mothers to breastfeed or pump their milk in privacy, if desired. Educate families and staff that a mother may breastfeed her child wherever they have a legal right to be.

• Step 9: Establish and maintain connections with local breastfeeding coalition or community breastfeeding resources.

• Step 10: Maintain an updated resource file of community breastfeeding services and resources kept in an accessible area for families.
Minimum Requirement:
• Comfortable place with a seat that enables a mother to breastfeed her child
• Policies that inform parents they have the right to breastfeed or provide breastmilk for their child while in care

Recommended:
• A pillow to support her infant in her lap
• A step stool to prop her feet and prevent back strain
• Water or other liquid to help her stay hydrated
Human Milk

• You do not need to store human milk in a separate refrigerator.

• You do not need to wear gloves to give a bottle of human milk to a baby.

• You do not contaminate human milk by touch.
Breast milk is classified as “food” and does not require universal precautions for handling body fluids. (CDC/OSHA)
## Storage Guidelines for Human Milk

<table>
<thead>
<tr>
<th>Storage Method</th>
<th>Best used within</th>
<th>Still safe to use within</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insulated cooler bag</td>
<td>24 hours</td>
<td>24 hours</td>
</tr>
<tr>
<td>Refrigerator</td>
<td>3 days</td>
<td>5 days</td>
</tr>
<tr>
<td>Freezer section inside a refrigerator</td>
<td>2 weeks</td>
<td>2 weeks</td>
</tr>
<tr>
<td>Freezer with a separate door or deep freezer</td>
<td>6 months</td>
<td>12 months</td>
</tr>
</tbody>
</table>
Storage Amounts of Breastmilk per Age Group

- 2 to 4 ounces for 6 week old
- 4 to 6 ounces for 3 month old
- 5 to 8 ounces for 6 month old
Handling Human Milk

• Clearly label each infant’s bottle

• Use the oldest milk first

• Feed infants expressed human milk on demand (when infant shows need to be fed)

• Staff should use proper hygiene
Refrigerators and Freezers

At home
• Normal food storage temperatures
• Avoid door storage
• Freezer that keeps ice cream solid

In hospital and child care settings
• Refrigerators: 35° to 40° F (1° to 4° C)
• Freezers: -4° ± 4° F (-20° ± 2° C)
Thawing milk

• Place in warm water
  – Babies can drink cold breast milk

• Place in refrigerator

• Do not boil
  – Avoid heating above body temperature

• Do not microwave
  – Hot spots can develop, which could burn the baby

• After human milk is thawed discard unused portion after 24 hours
Refrigerated Human Milk

- Place in bowl of warm water
- Shake gently to mix
Facts About Storing Human Milk

• Cream rises and forms a separate layer.

• Foods may color the milk.

• Milk can pick up certain scents – onions, garlic, mint.

• Milk may smell “soapy” but is still good.
Odor and Taste

• Typically human milk has a slightly sweet odor and taste.

• May be altered by:
  • Mother’s diet (may also change color)
  • Storage containers
  • Storage conditions
  • Milk can get freezer burn
Feeding Suggestions for Child Care Worker

- Use paced (baby-led) bottle feeding technique.
- Burp well.
- Avoid pacifiers for babies under 2 - 3 weeks old.
- Avoid solids before six months.
- Avoid feeding baby during the last 2 hrs before mom is due to pick up baby—or if you do, just give baby a “snack” (small portion)
Paced Bottle-feeding

- Gives babies control over the amount of milk consumed, just like breastfeeding does
- Supports the breastfeeding relationship, particularly for mothers who are separated from their babies on a regular basis
Paced Bottle-Feeding Steps

• Feed when the baby shows hunger cues.

• Hold the baby in an upright position to feed, supporting the head and neck with the hand.

• Use a slow-flow nipple and keep the nipple full of milk. Gently brush the nipple on the baby’s lips and allow the baby to draw the nipple in.
Paced Bottle-Feeding Steps

• Pause frequently to imitate natural pauses at the breast. Take breaks to burp the baby.

• Switch holds from one side to the other side midway through a feed to imitate breastfeeding.

• Stop when baby releases the nipple or shows other fullness cues. Don’t encourage baby to finish the bottle.
Incorrect Bottle Feeding

• If baby is laid back too much:
  
• Baby cannot control the flow.

• Prevents the baby from learning to self-regulate his food.
Correct Bottle Feeding Position

- Baby is upright
- Bottle is parallel to your lap
- Use a round nipple
- Deep latch to bottle nipple
Early Hunger Cues

• Rooting

• Fidgeting

• Head moves toward voice

• Lips smack and tongue reaches

• Hands move randomly

• Fist finds mouth
What is My Baby Trying to Tell Me?

http://youtu.be/fIAyKLLm5CE3

California Baby Behavior Campaign
WARNING:
Powdered infant formula is not sterile. It may contain bacteria that can cause serious illness in infants.

By preparing and storing powdered infant formula correctly, you can reduce the risk of illness.

Source: World Health Organization
Cleaning, Sterilizing & Storing

• Wash hands with soap and water and dry using a clean cloth.
• Wash all feeding and preparation equipment thoroughly in hot soapy water.
• Rinse thoroughly in hot water.
• For infants 3 months of age or younger, sterilizing in boiling water for 5 minutes or washing in a dishwasher is recommended.
How to Prepare Formula

- Boil the water used for infant formula preparation during the first 3 months of life.
  - Boil for 1-2 minutes, then let it cool.
- Follow package directions for mixing.
Follow package directions for mixing:

- Improper mixing will affect the calorie count.

- Under-diluted formula puts an excessive burden on an infant’s kidneys and digestive system and can lead to dehydration.

- Over-dilution can lead to growth problems, nutrient deficiencies and water intoxication.
Storing Prepared Formula

• Use refrigerated bottles of prepared concentrated formula within 48 hours.
• Use refrigerated bottles of powdered infant formula within 24 hours.
• It is not recommended to freeze.
• Discard any infant formula remaining in a bottle after feeding.
• Infant formula that is removed from refrigeration should be used within 1 hour or discarded.


Infant & Child Nutrition

Presented by Jessie Lupo, RD, LDN, CLC
Objectives

• Recognize the changing nutritional needs of developing children from infancy to 5 years.
• Gain strategies and tools to improve infant and child nutrition in a childcare setting.
Why is Nutrition Important!?

• Nutrition is vital to growth and development

• Over and under nourishment are REAL ISSUES
Infants: How fast do they grow?! 

Rapid body growth and brain development during the first year

- Weight triples
- Body length increases by half
- Head circumference increases 40%
- Brain weight doubles
Feeding a newborn! How??

#1 - Breastmilk
#2 - Iron Fortified Formula

<table>
<thead>
<tr>
<th>Nutrients</th>
<th>0-6 months</th>
<th>7-12 months</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbohydrates</td>
<td>60 g/day</td>
<td>95 g/day</td>
</tr>
<tr>
<td>Proteins</td>
<td>9.1 g/day</td>
<td>11 g/day</td>
</tr>
<tr>
<td>Fats</td>
<td>31 g/day</td>
<td>30 g/day</td>
</tr>
<tr>
<td>Vitamin D</td>
<td>200 IU/day</td>
<td>200 IU/day</td>
</tr>
<tr>
<td>Iron</td>
<td>.27 mg/day</td>
<td>11 mg/day</td>
</tr>
</tbody>
</table>
First Lesson- Learn Infant Language

- **Hunger**: wake and toss, suck on a fist, cry, fuss, look like they are going to cry

- **Fullness**: sealing the lips together, a decrease in sucking, spitting out the nipple, turning away from the bottle, pushing the bottle away

*photo credit: www.pinterest.com*
Start Small...

- **0-3 Months**
  2-3 ounces every 2-3 hours

[Image showing fruits and sizes]

**Day 1**
- size of a cherry
- 5 - 7 ml
- 1 - 1.4 teaspoon

**Day 3**
- size of a walnut
- 22 - 27 ml
- 0.75 - 1 oz

**Day Week**
- size of an apricot
- 45 - 60 ml
- 1.5 - 2 oz

**One Month**
- size of a large egg
- 80 - 150 ml
- 2.5 - 5 oz

*Photo credit: www.health-and-parenting.com*
Breastmilk and Formula
Amount and Frequency

4-6 Months
Formula: 4-6 ounces every 3-4 hours
Breastfeeding: 5 or more feedings
Complementary foods & liquids?

7-12 Months
Formula: 6-8 ounces for a total of 24-32 oz (preferably during day)
Breastfeeding: 3-5 feedings
Addition of complementary foods & liquids
How do you know infants are ready for complimentary foods?!

- Sit up with support
- Holds head steady
- Puts finger or toys in her mouth
- Closes lips over spoon
- Shows that food is not wanted by turning head
- Able to keep food in her mouth and swallow it

photo credit: www.babywisemom.com
Before you start. What foods should you avoid?

**Introduce after 6 months:**
- Home-prepared spinach, beets, turnips, carrots or collard greens

**Introduce after 1 year:**
- Whole cow's milk, goat milk, soy or rice drinks
- Honey
- Egg whites

*photo credit: www.arogyamasthu.com*
Introduction of Age Appropriate Solid Foods

4-6 Months

Readiness Signals:
- Can sit with support
- Good head control
- Shows interest in food
- Doubled birth weight

Recommendations:
- Start with iron fortified infant cereals
- Use spoon
- Offer smooth, strained, pureed
- No additional liquids unless indicated by physician

Photo Credit: www.dauntless-soft.com
6-7 Months

Readiness Signals:
• Clears spoon with upper lip
• Picks up objects and holds in hands

Recommendations:
• Add more fruits, vegetables and grains
• Offer smooth, strained, pureed
• Slowly introduce additional beverages and offer in cup
  - 4-8 oz of water
  - 2-4 oz 100% pasteurized fruit juice
• Test for food allergies
Feeding Skills and Recommendations

8-9 Months

Readiness Signals:
• Improve pincer grasp
• Holds spoon with or without help
• Holds bottle with help
• Begins to finger feed
• Begins to use jaw to mash food

Recommendations:
• Add more protein foods
• Offer mashed / chopped foods
• Include more finger foods
• Continue encouraging cup

Photo credit: www.theimportanceofbeinganaliment.blogspot.com
Feeding Skills and Recommendations

10-12 Months

Readiness Signals:
• Pulls to stand
• Reaches for food
• Drinks from sippy cup
• Begins to use spoon and fork

Recommendations:
• Add soft chopped table food
• Allow to self feed
## Sample Meal Pattern in a Childcare Setting

<table>
<thead>
<tr>
<th>0-5 Months</th>
<th>8-11 Months</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Breakfast/ Lunch / Dinner</strong></td>
<td><strong>Breakfast / Lunch / Dinner</strong></td>
</tr>
<tr>
<td>• 4-8 fluid oz. of formula / breastmilk</td>
<td>• 6-8 fluid ounces breastmilk or formula</td>
</tr>
<tr>
<td>• 0-4 tablespoons infant cereal, meat, fish, poultry, whole egg, cooked dry beans, or cooked dry peas</td>
<td>• 0-2 ounces of cheese</td>
</tr>
<tr>
<td>• or 0-2 ounces of cheese</td>
<td>• or 0-4 ounces (volume) of cottage cheese</td>
</tr>
<tr>
<td>• or 0-8 ounces or 1 cup of yogurt, or a combination of the above</td>
<td>• or 0-2 tablespoons vegetable or fruit or a combination of both</td>
</tr>
<tr>
<td>• and 0-2 tablespoons vegetable or fruit or a combination of both</td>
<td></td>
</tr>
<tr>
<td><strong>Snack</strong></td>
<td><strong>Snack</strong></td>
</tr>
<tr>
<td>• 4-6 fluid oz. of formula or breastmilk</td>
<td>• 2-4 fluid ounces breastmilk or formula</td>
</tr>
<tr>
<td>• 0-½ slice bread</td>
<td>• 0-2 crackers</td>
</tr>
<tr>
<td>• 0-4 tablespoons infant cereal</td>
<td>• 0-2 tablespoons vegetable or fruit, or a combination of both</td>
</tr>
<tr>
<td>• 0-2 tablespoons vegetable or fruit, or a combination of both</td>
<td></td>
</tr>
</tbody>
</table>

Bottom line... Let infants guide you!
Suggestions for Child Care Workers

- Support breastfeeding mothers
- Use paced, baby-led bottle feeding techniques
- Introduce solids closer to six months
- Introduce solids slowly
- Understand fullness and hunger cues
- Establish a meal pattern- 3 meals, 2 snacks
- Create a child-focused mealtime environment
- Communicate with parents
- Create a plan!
Between the ages of 2-5 children, children grow 2 ½ inches and gain 4-5 pounds each year!
WARNING

Behavioral changes will be your biggest obstacle to good nutrition!

But, that’s okay!
# Behavioral Milestones

## 1 year
- Increased independence
- Walking
- Stop bottle
- Practice eating from a spoon
- Less interested in eating

## 2 years
- Can use a spoon and drink from a cup
- Can be easily distracted
- Growth slows and appetite drops
- Develops likes and dislikes
- Can be very messy
- May suddenly refuse certain foods

## 3 years
- Make simple either/or food choices
- Pours liquid with some spills
- Comfortable using fork and spoon
- **Starts to request favorite foods**
- Likes to imitate cooking
- May suddenly refuse certain foods

## 4-5 years
- May dislike mixed dishes
- Rarely spills with spoon or cup
- Knows what table manners are expected
- Can be suddenly sidetracked
- May suddenly refuse certain foods
# Daily Needs

<table>
<thead>
<tr>
<th></th>
<th>1-2 Years</th>
<th>3 Years</th>
<th>4-5 Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calories</td>
<td>1000</td>
<td>1200-1400</td>
<td>1200-1600</td>
</tr>
<tr>
<td>Fruits</td>
<td>1 cup</td>
<td>1 ½ cups</td>
<td>1 – ½ cups</td>
</tr>
<tr>
<td>Vegetables</td>
<td>1 cup</td>
<td>1 ½ cups</td>
<td>1 ½ - 2 cups</td>
</tr>
<tr>
<td>Grains</td>
<td>3 ounces</td>
<td>4-5 ounces</td>
<td>4-5 ounces</td>
</tr>
<tr>
<td>Proteins</td>
<td>2 ounces</td>
<td>3-4 ounces</td>
<td>3-5 ounces</td>
</tr>
<tr>
<td>Dairy</td>
<td>2 cups</td>
<td>2 cups</td>
<td>2 ½ cups</td>
</tr>
<tr>
<td>Sample Meal Pattern</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---------------------</td>
<td>--</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Breakfast (3)</strong></td>
<td><strong>Snack (2)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- 4 oz. of milk</td>
<td>- ¼ cup apple slices</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- ¼ Cup Wheaties Cereal</td>
<td>- ½ oz. peanut butter</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- ¼ cup kiwi slices</td>
<td>- 4 oz. water</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Snack (2)</strong></td>
<td><strong>Dinner (5)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- 1 graham cracker</td>
<td>- 4 oz. of milk</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- 4 oz. milk</td>
<td>- ¼ c. brown rice</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- 1 oz. meat loaf</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- ¼ cup sautéed spinach</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- ¼ applesauce</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Lunch (4)</strong></td>
<td><strong>Optional Snack (2)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- ½ turkey sandwich on whole wheat bread</td>
<td>- ¼ cup tomato slices</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- ½ oz. low fat yogurt</td>
<td>- ½ oz cheese</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- ¼ cup mixed berries</td>
<td>(good option if child is picky)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- 4 oz water</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(good option if child is picky)
Suggestions for Child Care Workers

• Make mealtimes happy.
• Encourage a variety of foods.
• Embrace picky eaters and try to outsmart them.
• Keep meals and snacks consistent.
• Foods refused today may be accepted later. Keep trying!
• Let children detect their own hunger and fullness cues.
• Teach kids through food.
• Be a good role model.
• Communicate with parents.

photo credit: www.parenttoolkit.com


Food Safety & Nutrition for Childcare Providers

Presented by Nadia Khan, MBA, MPH, RDN, LD
FOOD SAFETY FIRST!
Why Food Safety?

- **1** in **6** Americans get sick with food poisoning each year
- **128,000** estimated annual hospitalizations and **3000** deaths from foodborne illnesses
- **42,000** estimated annual reports of Salmonella infections the most frequent cause of foodborne illnesses
- Of the estimated **42,000** annual Salmonella infections, nearly **50%** are **infants** and **school-age children**
# Foodborne Illness Incidence

<table>
<thead>
<tr>
<th>Pathogen</th>
<th>Number Culture Confirmed Cases in under 5 years olds in 2013</th>
<th>Incidence per 100,000 in the population under 5 years old in 2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Campylobacter</td>
<td>727</td>
<td>24.34</td>
</tr>
<tr>
<td>Cryptosporidium</td>
<td>136</td>
<td>4.55</td>
</tr>
<tr>
<td>E. Coli 0157</td>
<td>124</td>
<td>4.15</td>
</tr>
<tr>
<td>E.Coli non-0157</td>
<td>124</td>
<td>4.15</td>
</tr>
<tr>
<td>Salmonella</td>
<td>1842</td>
<td>61.67</td>
</tr>
<tr>
<td>Shigella</td>
<td>586</td>
<td>19.62</td>
</tr>
<tr>
<td>Yersinia</td>
<td>40</td>
<td>1.34</td>
</tr>
</tbody>
</table>
Cleaning, Disinfecting, & Sanitizing

- Wash hands prior to serving
- Avoid double dipping
- Throw away all uneaten food on a plate
- Check shelf life before serving
- Keep left overs for 48 hours max
Safe Food Practices

The Importance of Cleaning and Washing During Food Preparation
# Safe Storage of Solid Baby Food

<table>
<thead>
<tr>
<th>SOLIDS (opened or freshly made)</th>
<th>Refrigerator</th>
<th>Freezer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strained fruits and vegetables</td>
<td>2-3 days</td>
<td>6-8 months</td>
</tr>
<tr>
<td>Strained meats and eggs</td>
<td>1 day</td>
<td>1-2 months</td>
</tr>
<tr>
<td>Meat/vegetable combinations</td>
<td>1-2 days</td>
<td>1-2 months</td>
</tr>
<tr>
<td>Homemade baby foods</td>
<td>1-2 days</td>
<td>3-4 months</td>
</tr>
</tbody>
</table>
Over 6 million Americans have food allergies. Food allergies are becoming a public health and food safety concern that affects 4%-6% of children.

- More than 170 foods are known to cause IgE mediated food allergies.
- Some nonfoods products used in schools such as clay, finger paint, paste may contain allergens that may not be identified on product labels.
Food Allergies In Childcare Centers

- Children with food allergies are 2 to 4 times more likely to have asthma or other allergic conditions than those without food allergies.
- Food allergy prevalence among children increased 18% from 1997-2007.
- Staff working in schools and early care and education (ECE) programs should develop comprehensive plans for preventing allergic reactions and responding to food allergy emergencies.
Common Food Allergies

MAIN CULPRITS
Foods responsible for intolerance or allergy

Eight major foods or food groups believed to account for 90 per cent of food allergies.

- MILK
- WHEAT
- EGGS
- SOYBEANS
- PEANUTS
- TREE NUTS (almond, cashew, pecan, walnut, hazelnut, macadamia)
- SHELL FISH (shrimp, crab, lobster)
- FISHES

Photo Credit: https://ourbetterhealth.org
Food Allergy Symptoms

- Skin rash
- Hives or eczema
- Tingling in mouth
- Swelling of tongue or throat
- GI Symptoms – diarrhea, vomiting, or abdominal cramps and pain
- Drop in blood pressure, shortness of breath
- Anaphylaxis – tingling sensation in the mouth, difficult breathing, swollen tongue, throat closing, vomiting, loss of consciousness, death (rare)
- Causes 300,000 hospital visits and 150-100 deaths per year (Call 911!)
Common Descriptions of Food Allergy

- It feels like something is poking my tongue.
- My tongue/mouth is tingling or burning.
- My tongue/mouth itches.
- My tongue feels like it has hair on it.
- My mouth feels funny.

- There's is a frog in my throat/there is something stuck in my throat.
- My tongue feels full or heavy.
- My lips feel tight.
- It feels like a bump is on the back of my tongue/throat.
Tips to Avoid Food Allergens

- Read ALL product labels carefully
- Be aware of unexpected sources of allergens
- All FDA-regulated manufactured food products that contain “major food allergens” as an ingredient are required by U.S. law to list that allergen on the product label
Food Intolerances & Sensitivities

Food Intolerance- not an immune response, but an inability to absorb or process a certain food due to enzyme deficiency.

- Symptoms: gastrointestinal discomfort, stomach pain, diarrhea, vomiting, and nausea
- E.g. lactose intolerance: the body is either missing lactase (the enzyme that breaks down lactose) or lactase doesn’t work as well as it should

Food Sensitivity- Least understood, most difficult to diagnose of the three.

- Symptoms: reflux, nausea, and abdominal cramps
- E.g. A person may have a negative reaction to certain foods that do not always occur in the same way
## Food Poisoning

**Caused by:**
- Bacteria
- Viruses
- Parasites

**Avoid:**
- Unpasteurized dairy products
- Raw or partially cooked eggs
- Raw or undercooked fish
- Unpasteurized juices
- Raw sprouts
- Honey (can harbor spores of toxic bacterium that can cause botulism)
Oral allergy syndrome (OAS): allergy to certain raw fruits and vegetables

- **Symptoms:** itchy, tingling sensation in the mouth, lips, and throat; watery eyes, runny nose, and sneezing
- **Common foods associated with OAS:** bananas, apples, cherries, kiwis, celery, tomatoes, and green peppers
Safe Infant Feeding Practices

• Check the packaging of commercial baby food before serving
  – **Jars:** safety button on the lid should be down
  – **Plastic pouches:** discard all packages that are leaking or swelling
• Don’t “double dip” baby food
• Don’t share spoons
• Never leave any open containers of liquid or pureed baby food out at room temperature for more than 2 hours
• Store opened baby food in the refrigerator for no more than 3 days
High Choking Risk Foods

**SMALL Hard Foods**
- Nuts
- Seeds
- Popcorn
- Chips
- Pretzels
- Raw Carrots

**SLIPPERY Foods**
- Whole Grapes
- Large Pieces of Meat/Poultry/Hotdogs
- Lollipops and Cough Drops

**STICKY Foods**
- Peanut Butter
- Gum
- Taffy
- Caramels
- Marshmallows
- Jelly Beans
- Raisins/Dried Fruits
Safe Child Feeding Practices

- Offer finger foods like pieces of banana, graham crackers, cheese cubes, bagels for toddlers
- Watch children while they are eating
- Insist children to sit to eat and drink, not lie down or walk/run
- Encourage children to take their time and chew well
- Look for warning labels on food with high choking risks
- Be prepared to do first aid if choking occurs! (call 911 first)
What to do?

• Participate in the *Voluntary Guidelines for Managing Food Allergies in Schools and Early Care and Education Centers* - *FDA Food Safety Modernization Act*
• Ensure daily management of food allergies in individual children
• Prepare food allergy emergency plans
• Provide professional development on food allergies for staff member
• Educate children and family members about food allergies
• Create and maintain a healthy and safe education environment
• Visit: [http://www.edc.gov/Healthy>Youth/foodallergies](http://www.edc.gov/Healthy>Youth/foodallergies/)
2015 DIETARY GUIDELINES

- Congress mandates review of scientific evidence
- New DGA published every 5 years
- Offer advice about food choices that promote health and prevent disease
- DGA’s establish scientific and policy basis for all Federal Nutrition programs
Key DGA Recommendations

Follow a healthy eating pattern across the lifespan

Limit calories from added sugars and saturated fats and reduce sodium intake

DGAs

Focus on variety, nutrient density, and amount

Shift to healthier food and beverage choices
Current DGAs

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vegetables</td>
<td>dark green, red and orange, legumes</td>
</tr>
<tr>
<td>Fruits</td>
<td>especially whole fruits</td>
</tr>
<tr>
<td>Grains</td>
<td>at least half are whole grains</td>
</tr>
<tr>
<td>Fat-free or low-fat dairy</td>
<td>milk, yogurt, cheese, and fortified soy beverages</td>
</tr>
<tr>
<td>Protein foods</td>
<td>seafood, lean meats and poultry, eggs, legumes, nuts, seeds, and soy products</td>
</tr>
<tr>
<td>Oils</td>
<td>use oils rather than solid fats</td>
</tr>
</tbody>
</table>
A Healthy Eating Plan Limits...

- Saturated fats and trans fats, added sugars, and sodium
- Consume \textit{less than 10\%} of calories daily from added \textit{sugars}
- Consume \textit{less than 10\%} of calories daily from saturated \textit{fats}
- Consume \textit{less than 2,300} milligrams of \textit{sodium} daily
- If alcohol is consumed, it should be consumed in moderation
USDA SuperTracker

- Developed by USDA
- Interactive diet tracking tool
- Helps keep track of physical activity and weight
- Personalize goals
- Offers virtual coaching and journaling
Personalizing SuperTracker

Profile Name: Kierra167
Age: 21
Gender: Female
Are you pregnant or breastfeeding? No
Physical Activity: Less than 30 min/day of moderate activity
Height: 5 ft 6 in.
Weight: 160.0 lbs.

Would you like your SuperTracker plan to help you?
- Maintain your weight
- Reach your goal weight: 140 lbs.

Enter a personal calorie goal here: Calories

TIP: Use the National Institutes of Health (NIH) Body Weight Planner for help setting your personal calorie goal or goal weight.

Click here to edit your goals on the My Top 5 Goals page
Tracking Your Diet

Image of a food tracker application showing daily calorie intake and food group targets for a specific day.
Tracking your Activity

Physical Activity Tracker

Activities for Week of 02/14/16 - 02/20/16

Week Total: 120 60

Weekly Targets
Total Muscle-Strengthening Days: 4
Target: 2 Days minimum

Week of 02/14/16 to 02/20/16
Target: AT LEAST 150 minutes per week
Actual: 60 minutes

Daily Calorie Limit
Allowance: 1500
Eaten: 641
Remaining: 1159
### Daily Checklist

#### Food Group Amounts for 2,000 Calories a Day

<table>
<thead>
<tr>
<th>Fruits</th>
<th>Vegetables</th>
<th>Grains</th>
<th>Protein</th>
<th>Dairy</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 cups</td>
<td>2 1/2 cups</td>
<td>6 ounces</td>
<td>5 1/2 ounces</td>
<td>3 cups</td>
</tr>
<tr>
<td>Focus on whole fruits</td>
<td>Vary your veggies</td>
<td>Make half your grains whole grains</td>
<td>Vary your protein routine</td>
<td>Move to low-fat or fat-free milk or yogurt</td>
</tr>
<tr>
<td>Focus on whole fruits that are fresh, frozen, canned, or dried.</td>
<td>Choose a variety of colorful fresh, frozen, and canned vegetables—make sure to include dark green, red, and orange choices.</td>
<td>Find whole-grain foods by reading the Nutrition Facts label and ingredients list.</td>
<td>Mix up your protein foods to include seafood, beans and peas, unsalted nuts and seeds, soy products, eggs, and lean meats and poultry.</td>
<td>Choose fat-free milk, yogurt, and soy beverages (soy milk) to cut back on your saturated fat.</td>
</tr>
</tbody>
</table>

#### Limit

- Drink and eat less sodium, saturated fat, and added sugars. Limit:
- Sodium to 2,300 milligrams a day.
- Saturated fat to 22 grams a day.
- Added sugars to 50 grams a day.
## MyFitness Pal

### Your Food Diary For: Tuesday, February 16, 2016

<table>
<thead>
<tr>
<th></th>
<th>Calories</th>
<th>Carbs</th>
<th>Fat</th>
<th>Protein</th>
<th>Sodium</th>
<th>Sugar</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Breakfast</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Post - Fruity Pebbles With Milk, 1 cup cooked</td>
<td>347</td>
<td>47</td>
<td>12</td>
<td>12</td>
<td>227</td>
<td>12</td>
</tr>
<tr>
<td><strong>Lunch</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cochran - Steak 'n Shake - Burger, Single, Lettuce, Tomato, Onion., 1 burger</td>
<td>280</td>
<td>0</td>
<td>11</td>
<td>12</td>
<td>310</td>
<td>4</td>
</tr>
<tr>
<td>French Fries - Crinkle Cut, 80 g</td>
<td>260</td>
<td>32</td>
<td>14</td>
<td>3</td>
<td>170</td>
<td>0</td>
</tr>
<tr>
<td>Ketchup - Ketchup, 1 fluid ounce</td>
<td>30</td>
<td>8</td>
<td>0</td>
<td>0</td>
<td>320</td>
<td>8</td>
</tr>
<tr>
<td><strong>Dinner</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ballpark (Regular - Hotdogs, 1 hotdog</td>
<td>170</td>
<td>1</td>
<td>10</td>
<td>5</td>
<td>480</td>
<td>2</td>
</tr>
<tr>
<td>Ballpark (Regular - Hotdogs, 1 hotdog</td>
<td>170</td>
<td>1</td>
<td>15</td>
<td>5</td>
<td>480</td>
<td>2</td>
</tr>
<tr>
<td>Baked Beans - Baked Beans, 1 cup</td>
<td>280</td>
<td>35</td>
<td>2</td>
<td>8</td>
<td>852</td>
<td>17</td>
</tr>
<tr>
<td><strong>Snacks</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cheese Itz - Crackers, Cheese, Regular, 27 crackers</td>
<td>150</td>
<td>17</td>
<td>9</td>
<td>3</td>
<td>230</td>
<td>0</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td>1,687</td>
<td>142</td>
<td>77</td>
<td>48</td>
<td>3,069</td>
<td>45</td>
</tr>
<tr>
<td><strong>Your Daily Goal Remaining</strong></td>
<td>1,550</td>
<td>194</td>
<td>52</td>
<td>78</td>
<td>2,300</td>
<td>58</td>
</tr>
<tr>
<td><strong>Calories</strong></td>
<td>-137</td>
<td>52</td>
<td>-24</td>
<td>30</td>
<td>-768</td>
<td>12</td>
</tr>
<tr>
<td><strong>Carbs</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Fat</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Protein</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Sodium</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Sugar</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
• Make half your plate fruits and vegetables
  – Focus on whole fruits
  – Vary your veggies
• Make half your grains whole grains
• Move to low-fat and fat-free dairy
• Vary your protein routine
• Follow recommended serving sizes
Nutrition & Physical Fitness Tips

• Focus on variety, amount, and nutrition
• Choose foods and beverages with less saturated fat, sodium, and added sugars
• Start with small changes to build healthier eating styles
• Support healthy eating for everyone
• At least 2 hours and 30 minutes each week of aerobic physical activity at a moderate level OR 1 hour and 15 minutes each week of aerobic physical activity at a vigorous level
Food Assistance Programs in DC

- Women’s Infants and Children (WIC): 1-800-345-1WIC (1942)
- Supplemental Nutrition Assistance Program (SNAP-Ed): (202) 442-5876
- Child and Adult Care Food Program (CACFP): (202) 727-1839
- DC Free Summer Meals Program (FSMP): (202) 727-1839
- Capital Area Food Bank: (202) 526-5344

Photo credit: www.keepcalm-o-matic.co.uk
References


