



# Infancy Development

## Birth to 2 years



- **Objectives:**

- Identify the age designed as infancy
- Name at least four milestones that happen during infancy
- Discuss the nutritional needs of infants
- Compare and contrast breast milk and infant formula



oh baby! look what you can do!



# 1 TO 4 MONTHS

## MENTAL

- ❑ Begins to trust
- ❑ Behavior is reflexive
- ❑ Looks at patterns and faces (wants visual stimulation)
- ❑ Discovers things by tasting
- ❑ Responds to voices
- ❑ Cries differently when different needs

## SOCIAL

- ❑ Enjoys eye contact
- ❑ Knows difference between parents and strangers
- ❑ Studies things (faces)
- ❑ Likes social interaction



## 5 TO 12 MONTHS

### MENTAL

- 📖 Shows interest in colors
- 📖 Analyses toys and concentrates on one toy at a time
- 📖 Tries to mimic sounds and experiments with different volumes and pitches of sounds
- 📖 Explores things by touch

### SOCIAL

- 📖 Responds to noise
- 📖 Is shy or afraid of strangers
- 📖 Likes mimicking
- 📖 Responds to his/her name
- 📖 Raises arms when wanting to be picked up

# 12 TO 24 MONTHS

## MENTAL

- Starts to pretend
- Learns by exploring
- Can match shapes
- Can draw circles and lines on paper

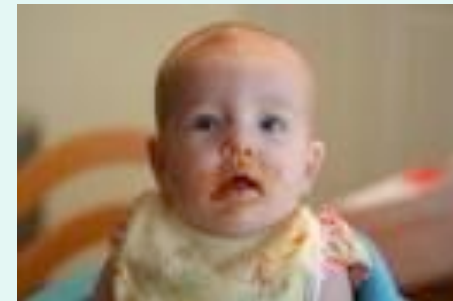


## SOCIAL

- Copies and imitates
- Exhibits a temper when angry
- Responds to verbal requests without signals
- Waves good-bye
- Understand more than he/she says
- Likes to sing

# Obesity in Infants

- ❏ No medical consensus on how to identify overweight before age two
- ❏ More effort needs to be put into building consensus on how to identify obesity in infants
- ❏ Height and weight percentiles should be fairly close
- ❏ Infants naturally know when to eat and when to stop eating.





## Malnutrition in Infants

- ❏ The rapid growth period of infancy is when most of the cellular maturation occurs.
- ❏ Infants need more of all nutrients than an adult in terms of body weight
- ❏ Energy requirements in the newborn are greatest in infancy

# Consequences of Malnutrition

- ❑ Children with dysnutrition are more illness-prone
- ❑ Tend to be less socially interactive
- ❑ Malnutrition/dysnutrition in early life handicaps an infant's normal physiological maturation
- ❑ The earlier it occurs and longer it lasts the more severe and permanent the impairment will be

Kwashiorkor



Marasmus





## How much should an infant eat?

40 calories per inch per day (1300 cals for a 32" tall child)

- Dairy: 2-3 servings (One serving=      cup of milk or      ounce of cheese)
- Meats: 2-3 servings (serving=2 tbsp of meat or      an egg)
- Vegetables: 2-3 servings (serving=1 tbsp for each year of age)
- Legumes: 2 servings (serving=2 tbsp of beans, peas, or lentils)
- Fruits: 2-3 servings (serving=      piece of fresh fruit or      cup of canned)
- Grains: 6 servings (serving=      to      slice of bread or 4 tablespoons of rice or pasta)



# Benefits of Infant formula

- ❑ Many types of formula on the market.
- ❑ Formula offers many vitamins, nutrients, proteins and iron.
- ❑ Mother may not be able /willing to breastfeed.
- ❑ Healthcare providers can provide parents with the best choice of formula.
- ❑ Infant formula is better than regular cow milk





# Benefits Continued

## Convenient:

- Ⓢ Both parents can share in the duties and joy of feeding the baby.
- Ⓢ Father can also bond with the baby.

## Flexibility:

- Ⓢ Once formula is made, mother can leave baby with caregiver.
- Ⓢ No need to pump before or during work.
- Ⓢ No need to find a private place to feed the baby.
- Ⓢ No need to schedule activities or work schedule around feedings.
- Ⓢ Other family members and close friends can share in the feedings.



## Benefits Continued

### Time and Frequency:

- Formula digests slower than breast milk thus babies usually eat less often.

### Diet:

- Mother can eat and drink whatever she wants and not worry about it affecting her baby.





# Challenges Of Using Formula

## Organization and Preparation:

- ⊙ Formula needs to be on-hand at all times and bottles must be prepared.
- ⊙ Powdered and condensed formula must be prepared using sterile water until the baby is at least 6 months.
- ⊙ Bottles and nipples need to be sterilized before the first use and each time after that.
- ⊙ Formula left out longer than 1 hour or any that baby does not finish needs to be thrown away.
- ⊙ Prepared formula that has been in the refrigerator should not be used after 24 to 48 hours.
- ⊙ Bottles may need to be warmed prior to feeding.

# Challenges Continued

## ❏ Lack of antibodies:

- Ⓢ Formula does not provide the important antibodies that breast milk contains. It does not protect against illness and infection.



## ❏ Gas and Constipation:

- Ⓢ Formula-fed babies have more gas and firmer bowels.

## ❏ Expensive!



Any Questions??



Something to think about...

- Review Questions:

- 1. What is infancy?

- 2. What are three mental developments achieved during infancy?


- 3. What are two benefits of using infant formula?

- 4. What is missing in infant formulas that breast milk has and helps baby fight off infections?



# References

 <http://www.kidshealth.org>

 <http://www.1800diapers.com>

 <http://www.welcomeaddition.com>

 <http://www.envisagedesign.com>