Early Childhood: Growth & Development, Anticipatory Guidance & Common Concerns

Albrey Berber DNP, CPNP-PC

Disclosures

Albrey Berber DNP, CPNP-PC

- Has no financial relationship with commercial interests
- This presentation contains no reference to unlabeled/unapproved uses of drugs or products

Learning Objectives

Upon completion of this review, the course attendee should be able to:

- Discuss components of early childhood history important to every health surveillance visit.
- Distinguish between normal and abnormal physical findings in early childhood.
- Identify developmental milestones during early childhood.
- List appropriate screening tests for early childhood.
- Examine “red flags” or factors that suggest that the toddler and preschooler are at risk for experiencing a developmental problem or delay.
- Describe appropriate anticipatory guidance for early childhood.
- Explain the management of common concerns during early childhood years.
- Describe the identification and management of early childhood with signs of abuse or neglect

Pediatric Nurse Practitioners
The Leader in Pediatric Education for Nurse Practitioners

Presentation Outline

I. Physical Development

II. Developmental Milestones/”Red Flags”

III. History

IV. Screening

V. Physical Assessment

VI. Anticipatory Guidance

VII. Common Concerns

VIII. Identification and management of child abuse

12 month visit

- **Priorities**
  - Social determinants of health
  - Establishing routines
  - Feeding & appetite changes
  - Establishing a dental home
  - Safety

- **Universal screenings**
  - Anemia (Hematocrit or hemoglobin)
  - Lead (Lead blood test)
  - Oral health (Apply fluoride varnish after 1st tooth eruption & every 6 months- in absence of dental home)

- **Risk Assessments**
  - BP
  - Hearing
  - Lead
  - Oral Health
  - TB
  - Vision

Pediatric Nurse Practitioners
The Leader in Pediatric Education for Nurse Practitioners

12 month

Social determinants of health

- Living situation
- Financial stability
- Food insecurity
- Tobacco, Alcohol, Drugs

12 month Nutrition

- Caloric needs: 05-100 kcal/kg/day
- Breastfeeding may continue but toddler is getting majority from table food
- If formula feed discuss cow's milk (whole until 2 years)
- Screen for iron-deficiency anemia
- Typical serving size is 1 Tbsp/year of age
- Offer liquids in a cup
- Limit juice to 4/6 ounces/day
- Limit whole ilk to 16-24 ounces/day
- Reinforce meal time as family time
- 3 meals & 2 snacks/day
- Chop foods into small pieces
- Avoid choking risk (grapes, raisins, peanuts, popcorn)
- Self feed, cup or utensil

Pediatric Nurse Practitioners
The Leader in Pediatric Education for Nurse Practitioners

12 month
Growth & Development

- **Physical:**
  - Typically tripled birth weight
  - Overall growth will begin to slow: 3-3.5 kg/year & 12 cm
  - HC average 47 cm, brain weight doubles in 1st year
- **Motor:**
  - **Fine:** Pincer grasp well developed, puts block in cups, can hold crayon & make marks
  - **Gross:** Stand alone for a few seconds, may take some steps, cruising

Pediatric Nurse Practitioners
The Leader in Pediatric Education for Nurse Practitioners

12 month
Growth & Development

- **Language:**
  - 3-4 words
  - Dada & Mama are specific
  - Imitates sounds
  - Begins to respond and follow simple commands
  - Understands “No”
  - Will look for objects when named

- **Cognitive:**
  - Continues in Piaget’s sensorimotor stage: actions are intentional
  - Exploration of environment as mobility increases
  - Observes others actions, listens, touches/mouth objects
  - Play is more spontaneous and self-initiated

Pediatric Nurse Practitioners
The Leader in Pediatric Education for Nurse Practitioners

12 month
Elimination & Sleep

- **Elimination:**
  - Regular patterns may be established, but continue to be involuntary
  - Discourage toilet training until close to 24 months of age

- **Sleep:**
  - Require: 11-14 hours total/day
  - May nap 1-2 times/day
  - Bedtime rituals important
  - Transitional object important
  - Resistance & night time waking common
  - Avoid late naps
  - Mattress in lowest positon
  - No bottles in bed

Pediatric Nurse Practitioners
The Leader in Pediatric Education for Nurse Practitioners

12 month Safety

- Bathwater < 120 F
- Use sunscreen
- Switch to toddler car seat (still rear-facing)
- Never leave child in car alone
- Fall prevention
- Never leave child outside alone
- Smoke free environment: smoke-alarms
- Protective enclosures around water
- Baby proof from walking perspective
- Pets (keep child away from feeding area)
- Poisoning

12 month complete PE w/focus on the following:

- **Measure**
  - Recumbent length
  - Weight
  - Weight for Length
  - HC
- **Eyes**
  - Assess ocular motility
  - Examine pupils for opacification & red flexes
  - Assess visual acuity using fixate & follow response
- **Mouth**
  - Observe for dental abnormalities
- **Abdomen**
  - Palpate for masses
- **Neurologic**
  - Observe gait if walking
- **Genitals**
  - **Testicles descended?**
  - **Labia open?**
- **Skin**
  - Observe for nevi, café-au-lait, birthmarks, or bruising

Pediatric Nurse Practitioners
The Leader in Pediatric Education for Nurse Practitioners

15 month visit

- **Priorities**
  - Communication & social development
  - Sleep routines
  - Temperament, behaviors & discipline
  - Healthy Teeth
  - Safety

- **Universal screenings**
  - Oral Health

- **Risk assessments**
  - Anemia
  - BP
  - Hearing
  - Vision

Pediatric Nurse Practitioners
The Leader in Pediatric Education for Nurse Practitioners

15 month
Growth & Development

- **Physical:**
  - Head is in smaller proportion than body
  - Vision is binocular (strabismus should be referred)
  - Push & carry large objects
  - Like repetitive actions such as throwing & retrieving objects
- **Language:**
  - Follow simple commands (good receptive skills)
- **Emotional/Social:**
  - Working towards independence but still experience dependency needs (separation anxiety)
- **Cognitive:**
  - Working on causality
  - Increased physical abilities and memory development
  - Starting to see objects symbolically
  - Imagination begins

Pediatric Nurse Practitioners
The Leader in Pediatric Education for Nurse Practitioners

15 month
Elimination & Sleep

- **Elimination:**
  - Discourage toilet training until close to 24 months of age
  - Encourage use of proper names for body parts

- **Sleep:**
  - Require: 12 hours total/day
  - May nap 1-2 times/day
  - Often have trouble falling asleep (due to separation anxiety, independence issues)
  - Transitional object important
  - No bottles in bed
  - Tuck them in awake

15 month
Safety

- Motor vehicles (car seats, bike helmets, pedestrian safety)
- Poisoning (keep medications/chemicals out of reach)
- Burns (bathwater, kitchen, smoke detectors)
- Drowning (child can drown in 2 in of water)
- Choking/Suffocation (food, small toys)
- Falls (gates, crib rail, fenced play areas)

15 month complete PE w/focus on the following:

- **Measure**
  - Recumbent length
  - Weight
  - Weight for Length
  - HC
- **Eyes**
  - Assess ocular motility
  - Examine pupils for opacification & red flexes
  - Assess visual acuity using fixate & follow response
- **Mouth**
  - Observe for dental abnormalities
- **Abdomen**
  - Palpate for masses
- **Neurologic**
  - **Observe interactions & stranger avoidance**
  - **How the child walks and moves around the room**
- **Skin**
  - Observe for nevi, café-au-lait, birthmarks, or bruising

Pediatric Nurse Practitioners
The Leader in Pediatric Education for Nurse Practitioners

18 month visit

- **Priorities**
  - Communication & social development
  - Healthy nutrition
  - Temperament, development, toilet training, behavior, & discipline
  - Television & media
  - Safety

- **Universal screenings**
  - Autism (MCHAT)
  - Developmental screening (ASQ)
  - Oral Health

- **Risk assessments**
  - Anemia
  - BP
  - Lead
  - Vision

Pediatric Nurse Practitioners
The Leader in Pediatric Education for Nurse Practitioners

18 month
Growth & Development

- **Physical:**
  - Anterior fontanel closes
  - Pot-bellied
  - Bow-legged
  - Average of 14 teeth
- **Language:**
  - Largest jump in language is the 2nd half of the 2nd year
- **Emotional/Social:**
  - Working towards independence but still experience dependency needs (separation anxiety)
  - Beginning body image development.
  - May start becoming aware of gender
  - Atypical development in socialization & communication can be detected

Pediatric Nurse Practitioners
The Leader in Pediatric Education for Nurse Practitioners

18 month
Elimination & Sleep

- **Elimination:**
  - Discourage toilet training until close to 24 months of age
  - Encourage use of proper names for body parts

- **Sleep:**
  - Require: 12 hours total/day
  - May nap 1-2 times/day
  - Often have trouble falling asleep (due to separation anxiety, independence issues)
  - Transitional object important
  - No bottles in bed
  - Tuck them in awake

Pediatric Nurse Practitioners
The Leader in Pediatric Education for Nurse Practitioners

18 month
Safety

- Motor vehicles (car seats, bike helmets, pedestrian safety)
- Poisoning (keep medications/chemicals out of reach)
- Burns (bathwater, kitchen, smoke detectors)
- Drowning (child can drown in 2 inches of water)
- Choking/Suffocation (food, small toys)
- Falls (gates, crib rail, fenced play areas)

18 month complete PE w/focus on the following:

- **Measure**
  - Recumbent length
  - Weight
  - Weight for Length
  - HC
- **Eyes**
  - Assess ocular motility
  - Examine pupils for opacification & red flexes
  - Assess visual acuity using fixate & follow response
- **Mouth**
  - Observe for dental abnormalities
- **Abdomen**
  - Palpate for masses
- **Neurologic**
  - Observe gait (walking and running) hand control, arm and spine movement
  - **Formal motor system testing**
  - **Note behavior(adult child interaction, eye contact, use of gestures)**
- **Skin**
  - Observe for nevi, café-au-lait, birthmarks, or bruising

Pediatric Nurse Practitioners
The Leader in Pediatric Education for Nurse Practitioners

2 year visit

- **Priorities**
  - Social determinant of health
  - Temperament & behavior
  - Assessment of language development
  - Toilet training
  - Safety

- **Universal screenings**
  - Autism (MCHAT)
  - Lead
  - Oral Health

- **Risk assessments**
  - Anemia
  - BP
  - Dyslipidemia
  - TB
  - Vision

Pediatric Nurse Practitioners
The Leader in Pediatric Education for Nurse Practitioners

2 year Nutrition

- Quadruples birth weight by 2 years
- Requires approximately 102 kcal/kg
- Offer skin, 1% or 2% milk (no longer whole)
- Has unpredictable eating habits (likes a food one day doesn't like it the next)
- Usually eats only 1-2 foods per meal
- Feeds self, loves finger foods
- Complete set of 20 primary teeth
- **Assess for hyperlipidemia**

2 year
Elimination & Sleep

- **Elimination:**
  - Regular elimination pattern is established
  - Toilet training is major development task between 2.5-3.5
  - Read for toilet training if BMs are regular, child is interested in training

- **Sleep:**
  - Should be able to sleep all night & maintain 1 nap/day
  - Important to have pleasant bedtime routine
  - Not uncommon to experience nighttime sleep awakenings
  - May sleep in crib or small bed depending on child's size, climbing skills

2 year
Growth & Development

- **Physical:**
  - Gains 4.5 -6.6 lbs – 2.5-2.5 inches/year from 2-5 years of age
- **Language:**
  - 50% of speech is understandable by stranger
  - At least 20 words
  - Uses 2 word phrases
  - Understand “I” and “You”

- **Gross motor:**
  - Runs w/o falling
  - Kicks large ball
  - Jumps
  - Walks up/down stairs 1 step at a time

- **Fine motor:**
  - Stacks 5-6 blocks
  - Make/imitates horizontal/circular strokes
  - Manipulates/solve single-piece puzzles
  - Can unravel/untie/undo

Pediatric Nurse Practitioners
The Leader in Pediatric Education for Nurse Practitioners

2 year
Growth & Development

- **Emotional/Social:**
  - Fears body harm (softens approach)
  - Loves to explore (independence)
  - Time-out for discipline (1 min/year of age)
  - Loves positive reinforcement
  - Negativity, temper tantrums (“terrible twos”)
  - Stranger anxiety is common
  - Imitates adult activities
  - Often develops fears (going down toilet with flushing)
  - Sibling rivalry

Pediatric Nurse Practitioners
The Leader in Pediatric Education for Nurse Practitioners

2 year
Safety

- Smoke alarms
- If in small bed make sure mattress close to ground
- Remove dangling objects such as blind cords
- Supervise play & eating
- Cleaning products out of reach
- Teach stranger safety
- Car seats
- Prevent falls

2 year complete PE w/focus on the following:

- **Measure**
  - **Standing height preferred**
  - Weight
  - **BMI**
- **Eyes**
  - Assess ocular motility
  - Examine pupils for opacification & red flexes
  - Assess visual acuity using fixate & follow response
- **Mouth**
  - Observe for dental abnormalities
- **Abdomen**
  - Palpate for masses
- **Neurologic**
  - Observe gait
  - Scribbling
  - Socialization
  - Ability to follow commands
  - Assess language acquisition & clarity
- **Skin**
  - Observe for nevi, café-au-lait, birthmarks, or bruising

Pediatric Nurse Practitioners
The Leader in Pediatric Education for Nurse Practitioners

Red Flags: Sleep & Temperament

- **15 months**
  - No night-time ritual
  - Difficulty with transitions
  - Parents express concerns about temperament and control
- **18 months**
  - Poor sleep schedule
  - Problems with control and behavior
- **24 months**
  - Falling off growth curve
  - Poor sleep schedule
  - Awakes at night, unable to put self back to sleep

Red Flags: Gross Motor

- **15 months**
  - No attempts to walk
- **18 months**
  - Not yet walking
  - Frequently falls when walking
- **24 months**
  - Unable to walk downstairs using a rail
  - Persistent waddle walk
  - Persistent toe walking

Red Flags: Fine Motor

- **15 months**
  - No self feeding
- **18 months**
  - Does not try to scribble spontaneously
  - Unable to use a spoon
- **24 months**
  - Still eating pureed foods
  - Unable to imitate scribbles on paper
  - Unable to dump pellet from a bottle

Pediatric Nurse Practitioners
The Leader in Pediatric Education for Nurse Practitioners

Red Flags: Language & Hearing

- **15 months**
  - Lack of consonant production
  - Does not initiate words
  - No gestures or pointing
  - Consistent omission of initial consonant
- **18 months**
  - Unable to follow simple directions
  - Using only single words
  - Excessive, indiscriminate verbalizing
- **24 months**
  - No two word phrases
  - Use on non-communicative speech, phrases
    - Echolalia
  - Unable to identify pictures
  - No jargon

Pediatric Nurse Practitioners
The Leader in Pediatric Education for Nurse Practitioners

Red Flags: Cognitive & Visual

- **15 months**
  - Lack of object permanence
- **18 months**
  - Mouthing of toys
  - No fingering for exploration
  - Lack of imitation

Red Flags: Psychosocial & Emotional

- **15 months**
  - Problems w/attachment to caregiver
- **18 months**
  - Does not take another to see something
- **24 months**
  - Absent symbolic play
  - No evidence of parallel play
  - Displays destructive behavior
  - Always clings to mother

Dental Hygiene

- Brush teeth twice a day
  - Child-sized toothbrush
  - “pea-sized” amount of fluoride toothpaste
  - Teeth that touch should be flossed

- Pacifiers
  - Nothing sweet on them
  - Should only go in baby’s mouth
- Eating utensils should only go in baby’s mouth
- Drink fluoridated water
- Limit sweets
- First dental visit after first tooth erupts
  - No later than one year of age

Pediatric Nurse Practitioners
The Leader in Pediatric Education for Nurse Practitioners

- **Nightmares**
  - Occur during the **last third of the night** during sleep/ REM sleep
  - Child is **consolable**

- **Night Terrors**
  - Occur during the **first half of the night**
  - Sits up, screaming, **inconsolable**
  - Appears dazed
  - May have **tachycardia**, tachypnea, and **sweating**
  - Child **does not remember** the event
  - Does not result from emotional stress or disturbance

Pediatric Nurse Practitioners
The Leader in Pediatric Education for Nurse Practitioners

Anemia Screening

- Hgb test of choice
- 4-month-old: prematurity, low birth weight, use of low-iron formula, early introduction of cow's milk
- 15, 18 month; 2, 2.5, and 3 years-of-age
  - At risk because of special health care needs
  - Low-iron diet (no meat)
  - Environmental factors (poverty, limited access to food)

Tuberculosis Screening

- Tuberculosis: PPD for at risk or as needed
- Children who are HIV+ should be screened at 1, 6, 12 months and then annually starting at age 2 years
- Risk questions
  - Born in, or former resident of countries with increased TB prevalence
  - Living in, or who have lived in, high risk congregate settings
    - Homeless shelters; correction facilities
  - Immunocompromised or living with HIV
- USPSTF: no harm or benefit in screening asymptomatic kids

Dyslipidemia Screening

- Ages 2, 4, 6, 8 years of age as needed based on screening
- Screening Questions
  - Parent, grandparent, aunt, uncle, or sibling with MI, angina, stroke, or bypass graft, stent, angioplasty at <55 years of age in males and <65 in females
  - Parent with total cholesterol ≥ 240 mg/dl or known dyslipidemia
  - Patient has diabetes, hypertension, BMI ≥ 95th percentile
  - Patient has a moderate or high-risk medical condition.

Pediatric Nurse Practitioners
The Leader in Pediatric Education for Nurse Practitioners

3 year visit

- **Priorities:**
  - Social determinant of health
  - Playing with sibling & peers
  - Encouraging literacy activities
  - Promoting healthy nutrition & physical activities
  - Safety

- **Universal screenings**
  - Vision
  - Oral Health

- **Risk assessments**
  - Anemia
  - Hearing
  - TB
  - Lead

3 year Development

- **Gross Motor**
  - Alternates feet w/stairs
  - May ride tricycle
  - Dress self, including shoes (may need help with buttons etc)
  - Climbs, jumps, hops
- **Fine Motor**
  - Holds crayon w/fingers
  - Copies circle/cross
  - Draws person with 2 body parts
  - Can snip w/scissors
- **Language**
  - Speech is understandable 75%
  - Has approx. 900-1500 words
  - 2-3 word sentences
  - Understand concepts (big/little)
  - Knows name/gender
  - Can recognize some colors
- **Cognitive**
  - Understands tomorrow and yesterday
  - Fantasy play helps to role play new behavior

Pediatric Nurse Practitioners
The Leader in Pediatric Education for Nurse Practitioners

3 year complete PE w/focus on the following:

- **Measure**
  - **Blood Pressure**
  - Height
  - Weight
  - BMI
- **Eyes**
  - Assess ocular motility
  - Examine pupils for opacification & red flexes
  - Assess visual acuity using fixate & follow response
- **Mouth**
  - Observe for dental abnormalities
- **Abdomen**
  - Palpate for masses
- **Neurologic**
  - Assess language acquisition & clarity
- **Skin**
  - Observe for nevi, café-au-lait, birthmarks, or bruising

Red Flags for the 3-year-old

- Problems with toilet training
- Unable to calm self
- Holds a crayon with a fist
- Unable to draw a circle
- Not able to dress self
- Does not understand taking turns
- No pretend play
- Unable to give full name
- Unable to match two colors
- Unable to tell a story
- Unintelligible speech
- Unable to balance on one foot
- In-toeing cause tripping with running

Pediatric Nurse Practitioners
The Leader in Pediatric Education for Nurse Practitioners

4 year visit

- **Priorities:**
  - Social determinant of health
  - School readiness
  - Media use
  - Promoting healthy nutrition & physical activities
  - Safety
- **Universal screenings**
  - Hearing
  - Oral Health
  - Vision
- **Risk assessments**
  - Anemia
  - Dyslipidemia
  - Lead
  - TB

4-year-old Development

- **Gross Motor**
  - Balances well; hops on one foot
  - Hops, jumps, skips; up & down stairs
  - Throws ball overhead; rides tricycle
- **Fine Motor**
  - Copies circle and maybe cross
  - Draws person with 3 parts
- **Personal-Social**
  - Brushes teeth; dresses self
  - Play is associative
  - Less fantasy; strong imagination
- **Language**
  - Names colors
  - Understands adjectives
  - First name and last name
- **Cognitive**
  - Concrete and egocentric; causality

Pediatric Nurse Practitioners
The Leader in Pediatric Education for Nurse Practitioners

4 year complete PE w/focus on the following:

- **Measure**
  - Blood Pressure
  - Height
  - Weight
  - BMI
- **Eyes**
  - Assess ocular motility
  - Examine pupils for opacification & red flexes
- **Mouth**
  - Observe for dental abnormalities
- **HEENT**
  - **Nasal stuffiness**
- **Abdomen**
  - Palpate for masses
- **Neurologic**
  - **Assess fine and gross motor skills. Draw a picture.**
  - **Observe language acquisition, speech fluency and clarity, thought content, articulation difficulties**
- **Skin**
  - Observe for rashes, bruises

Pediatric Nurse Practitioners
The Leader in Pediatric Education for Nurse Practitioners

Red Flags for the 4-year-old

- Lack of bedtime ritual
- Withdrawn or acting out
- Stool holding; problems w/toilet training
- Lack of self-care skills
- Unable to button clothing
- Unable to copy a square
- Unable to play games; follows rules
- **Cruelty to animals**
- **Interest in fires**
- Persistent fears; shyness
- Difficulty understanding language
- Limited vocabulary; unclear speech
- **Unable to identify what to do when in danger, there is a fire, and with stranger**
- Unable to balance on one foot for 4 seconds
- Unable to alternate feet on stairs
- Unable to count 3 objects

Pediatric Nurse Practitioners
The Leader in Pediatric Education for Nurse Practitioners

3 & 4 year old Anticipatory Guidance

- **FEEDING**
  - Three healthy meals and 2-3 healthy snacks a day
  - Skim milk no more than 16 ounces/ day
  - Helping with meal planning
  - Encourage fruits and veggies, raw is best
  - Do not use food as bribe, reward, or threat
  - Limit sugary drinks
- **SLEEPING**
  - Sleeps 10-12 hours at night; one nap
  - Emergence of fears; dreams more real
  - More magical thinking
  - Sleep walking and other dyssomnias

Pediatric Nurse Practitioners
The Leader in Pediatric Education for Nurse Practitioners

Anticipatory Guidance

- **ELIMINATION**
  - Daytime control average 28 months
  - Nighttime control average 33 months
  - 30% of children still wet the bed at age 5

- **BEHAVIOR**
  - Imaginary friends
    - May be helpful and empathetic; teach social skills, or act as disciplinarian
    - May take on child's misbehaviors
    - Imaginary friends disappear by age 5-7 years
  - Strong imagination; may have trouble differentiating real and fantasy
  - Until age 6-do not know how to lie

Pediatric Nurse Practitioners
The Leader in Pediatric Education for Nurse Practitioners

Anticipatory Guidance

- **PLAY**
  - Plays well by self and associative play
  - Enjoys being with peers but with limited interactions with them
  - Unable to share well
  - Distorts reality with make-believe
  - Very creative imaginary play
  - Enjoys drawing parent into play
  - By 5 able to join into simple interactive games
  - Accepts standards of parents and peer group
  - Can engage in independent activity without constantly needing attention

Anticipatory Guidance

- **TELEVISION/ SCREENS**
  - No more than one hour of high quality programming per day.
  - Needs some parental control on screen time
  - Watches the activity but may not understand the story line
  - Still unable to distinguish between fantasy and reality but relate to characters as role models
  - So not link eating junk foods with watching TV

Anticipatory Guidance

- **LANGUAGE**
  - Language should be 90-100% understandable to a stranger by the age of 3
  - Stuttering is common during preschool years
    - DO NOT overcorrect or overload w/expectations

- **DISCIPLINE**
  - Expect child to control behavior for attention and approval
  - Use positive reinforcement
  - Punitive punishment leads to anger and violence
  - Frequent aggressive behavior needs investigation

Pediatric Nurse Practitioners
The Leader in Pediatric Education for Nurse Practitioners

Anticipatory Guidance

- **SAFETY**
  - Household and street safety
  - Water safety; Stranger safety; Fire safety
  - Car seat use
  - Bicycle helmet
  - Sports protective equipment
  - Medicine/Poisons
  - Medicine/Poisons
  - Firearms
  - Understand consequences of actions
  - Magical thinking may give sense of omnipotence
  - Start family safety drills

Physical Exam Findings in Early Childhood

- **Weight**
  - Average 26-28 pounds
- **Height**
  - 34-35 inches
- **Head Circumference**
  - Average 19-19.5 inches
  - AF completely closed by 18 mo
- **Skin**
  - Rashes are common
  - Check for signs of child abuse
- **Lymph**
  - Still have reactive lymph tissue
- **Eye**
  - Annual visual screen starting at 3. If not cooperating, try again in 6 mo. If still unable refer
  - **Refer 20/40 in both eyes at 4 year**
  - **Refer if more than a 2 line difference between eyes**
  - **Watch for signs of trouble**
    - **Squinting**
    - **Photophobia**
    - **Tilting head**
    - **Difficulty reaching for and picking up**

Pediatric Nurse Practitioners
The Leader in Pediatric Education for Nurse Practitioners

Physical Exam Findings in Early Childhood

- **Neck**
  - Supple
  - Shotty nodes
- **Ear**
  - Address ANY concerns regarding hearing
- **Cardiac**
  - HR 80-120 bpm
  - Pulses equal
  - Functional murmur heard in 50% of children
  - Sinus arrhythmias are common
- **Lungs**
  - RR 30
  - Diaphragmatic breathers
  - Pectus excavatum
- **Throat**
  - 12 months: 6-8 teeth
  - 20 months: complete set of 20 teeth
  - Visit dentist 2x/ year

Pediatric Nurse Practitioners
The Leader in Pediatric Education for Nurse Practitioners

Physical Exam Findings in Early Childhood

- **Abdomen**
  - Protuberant becoming flatter
  - Liver becomes more mature
  - Liver edge 1-2 cm below RCM
  - Spleen edge 1-2 cm below LCM
  - Diastasis recti may still be present
- **GU**
  - No sexual maturation
  - Males Tanner I
    - Cremasteric reflex
    - Testicles palpable in scrotum
    - Foreskin easily retractable
  - Females Tanner I
    - Irritation from poor cleaning
    - Labial adhesions

Physical Exam Findings in Early Childhood

- **MSK**
  - In-toeing due to femoral anteversion
  - Genu valgum normal (knock-knees)
  - Scoliosis exam

- **Neurologic**
  - Developmental screening and observing for "red flags"
  - Neuro **"soft signs"** to be concerned about:
    - **Short attention span**
    - **Poor motor coordination**
    - **Hyperkinesia**
    - **Language disturbances**
    - **Mirroring movements**

Child Maltreatment

- Child maltreatment is the abuse and neglect that occurs to children under 18 years of age
- It includes all types of physical and/or emotional ill-treatment, sexual abuse, neglect, negligence and commercial or other exploitation, which results in actual or potential harm to the child's health, survival, development or dignity in the context of a relationship of responsibility, trust or power
- Exposure to intimate partner violence is also sometimes included as a form of child maltreatment.

Child Maltreatment: Risk Factors

- Child
  - Under 4 years old (or adolescent)
  - Being unwanted, or failing to full expectations
  - Special needs (abnormal physical features)

- Parent/Caregiver
  - Difficulty bonding with newborn
  - Lack of nurturing child
  - History of being maltreated themselves
  - Lack of awareness of child development (unrealistic expectations)
  - Misuse of alcohol or drugs (including during pregnancy)
  - Criminal activity or history
  - Financial insecurities

Pediatric Nurse Practitioners
The Leader in Pediatric Education for Nurse Practitioners

Child Maltreatment: Risk Factors

- Relationships/Community
  - Physical, development, or mental health problems of a family member
  - Violence among family members
  - Isolated in the community/lacking social support
  - Breakdown in support from extended family
  - Socioeconomic inquality/instability

Child Maltreatment: Neglect

- Most common form of child maltreatment
- **If neglect is suspect CPS should be contacted**

Child	Home	Supervision
Dirty Malnourished Poor hygiene Inadequate medical & dental care Always sleepy or hungry Exhibits food insecurity behaviors	Fire hazards or unsafe conditions Exposure to illegal substances No heating/plumbing Nutritional quality of the food inadequate Meals not prepared Food spoiled	Child has hx of physical injuries/ingestion of harmful substance Child cared for by another child Child left home alone, care, or anywhere without supervisions **(Child under 12 left unsupervised during the daytime or a child less than 16-18 left unsupervised by an adult at night)**

Pediatric Nurse Practitioners
The Leader in Pediatric Education for Nurse Practitioners

Child Maltreatment: Physical abuse

- If suspected CPS should be contacted
- Carefully document
- Secure photographs
- Refer for medical treatment

Skeletal Survey

Area of Body	X-Ray View
Skull	AP and Lateral
Spine	AP and Lateral
Chest/Ribs	AP, Lateral, and Oblique
Pelvis	AP
Long bones	AP and Lateral
Hands	Oblique views
Feet	AP views

Location of injury	Common Physical Finding
Head Area	**Eyes**-Bilateral black eyes **Earlobe**- Pinch & pull marks **Cheek**- Slap, squeeze marks **Upper lip/frenulum**- lacerations bruises **Scalp**- Bare/broken hair, bruises
Neck	Choke Marks
Trunk	**Trunk**- Bite marks, fingertip encirclement marks, hand slap, pink mark, belt mark **Buttocks/Lower back-** Paddling & strap marks
Anogenital	Pinch marks, penile wrapping w/constrictive materials
Extremities	**Upper arms**- Grab marks **Ankles/wrist**- tethering friction burn/marks **Feet**- pin or razor tattoo marks

Pediatric Nurse Practitioners
The Leader in Pediatric Education for Nurse Practitioners

Child Maltreatment: Sexual Abuse

- Any sexual abuse that involves oral, genital, rectal, or penile contact or penetration w/in the previous 72 hrs requires forensic specimens.
- You are **NOT** a forensic examiner
- You **ARE** a mandated reporter
- It is important for children who are victims of abuse that they tell their story to the right person.
- If a child discloses that they have been harmed, tell them that you will keep them safe & get them help
- Your responsibility is to see that the child remains safe & will have no further contact w/the perpetrator in the immediate future
- STI screening should be considered with a history of sexual abuse

Pediatric Nurse Practitioners
The Leader in Pediatric Education for Nurse Practitioners

Question 1

The parent of a 4-year-old points to a picture and says, “That’s your sister.” The child responds by saying, “No! It’s my baby!” This is an example of which type of thinking in preschool-age children?

1. Animism
2. Artificialism
3. Egocentrism
4. Realism

Question 1

The parent of a 4-year-old points to a picture and says, “That’s your sister.” The child responds by saying, “No! It’s my baby!” This is an example of which type of thinking in preschool-age children?

Answer: Realism

Question 2

The primary care PNP performs a developmental assessment on a 32-month-old child. The child's parent reports that about 70% of the child's speech is intelligible. The pediatric nurse practitioner observes that the child has difficulty pronouncing "t," "d," "k," and "g" sounds. Which action is correct?

1. Evaluate the child's cognitive abilities.
2. Obtain a hearing evaluation.
3. Reassure the parent that this is normal.
4. Refer the child to a speech therapist.

Question 2

The primary care PNP performs a developmental assessment on a 32-month-old child. The child's parent reports that about 70% of the child's speech is intelligible. The pediatric nurse practitioner observes that the child has difficulty pronouncing "t," "d," "k," and "g" sounds. Which action is correct?

Answer: Reassure the parent that this is normal.

Question 3

The primary care pediatric nurse practitioner is offering anticipatory guidance to the parents of a 12-month-old child. The parents are bilingual in Spanish and English and have many Spanish-speaking relatives nearby. They are resisting exposing the child to Spanish out of concern that the child will not learn English well. What will the pediatric nurse practitioner tell the parents?

1. Children who learn two languages simultaneously often confuse them in conversation.
2. Children with multi-language proficiency do not understand that others cannot do this.
3. Learning two languages at an early age prevents children from developing a dominant language.
4. Most bilingual children are able to shift from one language to another when appropriate.

Question 3

The primary care pediatric nurse practitioner is offering anticipatory guidance to the parents of a 12-month-old child. The parents are bilingual in Spanish and English and have many Spanish-speaking relatives nearby. They are resisting exposing the child to Spanish out of concern that the child will not learn English well. What will the pediatric nurse practitioner tell the parents?

Answer: Most bilingual children are able to shift from one language to another when appropriate.

Question 4

The parents of a 3-year-old child are concerned that the child has begun refusing usual foods and wants to eat mashed potatoes and chicken strips at every meal and snack. The child's rate of weight has slowed, but the child remains at the same percentile for weight on a growth chart. What will the primary care pediatric nurse practitioner tell the parents to do?

1. Allow the child to choose foods for meals to improve caloric intake.
2. Place a variety of nutritious foods on the child's plate at each meal.
3. Prepare mashed potatoes and chicken strips for the child at mealtimes.
4. Suggest cutting out snacks to improve the child's appetite at mealtimes.

Question 4

The parents of a 3-year-old child are concerned that the child has begun refusing usual foods and wants to eat mashed potatoes and chicken strips at every meal and snack. The child's rate of weight has slowed, but the child remains at the same percentile for weight on a growth chart. What will the primary care pediatric nurse practitioner tell the parents to do?

Answer: Place a variety of nutritious foods on the child's plate at each meal.

Question 5

The primary care PNP is evaluating a 2-year-old with a documented speech delay. Screenings to assess motor skills and cognition are normal, and the child passed a recent hearing test. What will the pediatric nurse practitioner do next?

1. Ask the child's parents whether they read to the child.
2. Give parents educational materials to encourage speech.
3. Refer the child to an early intervention program.
4. Suggest that they purchase age-appropriate music videos.

Question 5

The primary care PNP is evaluating a 2-year-old with a documented speech delay. Screenings to assess motor skills and cognition are normal, and the child passed a recent hearing test. What will the pediatric nurse practitioner do next?

Answer: Ask the child's parents whether they read to the child.

Question 6

The mother of a 3-year-old child takes the child to a play group once a week. She expresses concern that the child plays with toys but does not interact with the other toddlers. What will the primary care pediatric nurse practitioner counsel the mother?

1. The child probably is very shy but will outgrow this tendency with repeated exposure to other children.
2. The toddler may have a language delay that interferes with socialization with other children.
3. Toddlers may be interested in other children but usually do not engage in interactive play.
4. Toddlers need more structured play to encourage interaction and socialization with others.

Question 6

The mother of a 3-year-old child takes the child to a play group once a week. She expresses concern that the child plays with toys but does not interact with the other toddlers. What will the primary care pediatric nurse practitioner counsel the mother?

Answer: Toddlers may be interested in other children but usually do not engage in interactive play.