CHILD PSYCHOLOGY

Spring 2024

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Infancy and Toddlerhood: Physical Development

Chapter 4

4.6 Sensory Capabilities

- Newborn Chapter→ more differentiated and sophisticated, build preferences

Vision

Hearing

Touch and Pain

Taste and Smell

Show preferences to certain stimulation.

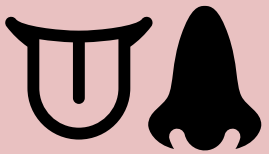
3.3 The Newborn

- Sensory (intermodal- stimulation from more than one sensory modality)
- Other senses (we may talk about later in the semester, time permitting.)

Vision

Hearing

Touch and Pain



Taste and Smell

3.3 The Newborn

- Sensory

Vision

Blurry until about 4 months (see color), reaching normal near 6-8 months.

3.3 The Newborn

- Sensory- white noise machines*

Vision

Blurry until about 4 months (see color), reaching normal near 6-8 months.

Hearing

Babies can hear prenatally.

3.3 The Newborn

- Sensory- skin-to-skin*

Touch and Pain

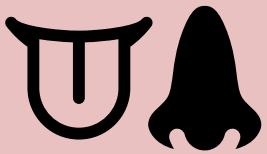
Sensitive to touch and temperatures and to pain after birth.

Taste and Smell

Show preferences to certain stimulation.

3.3 The Newborn

- Sensory

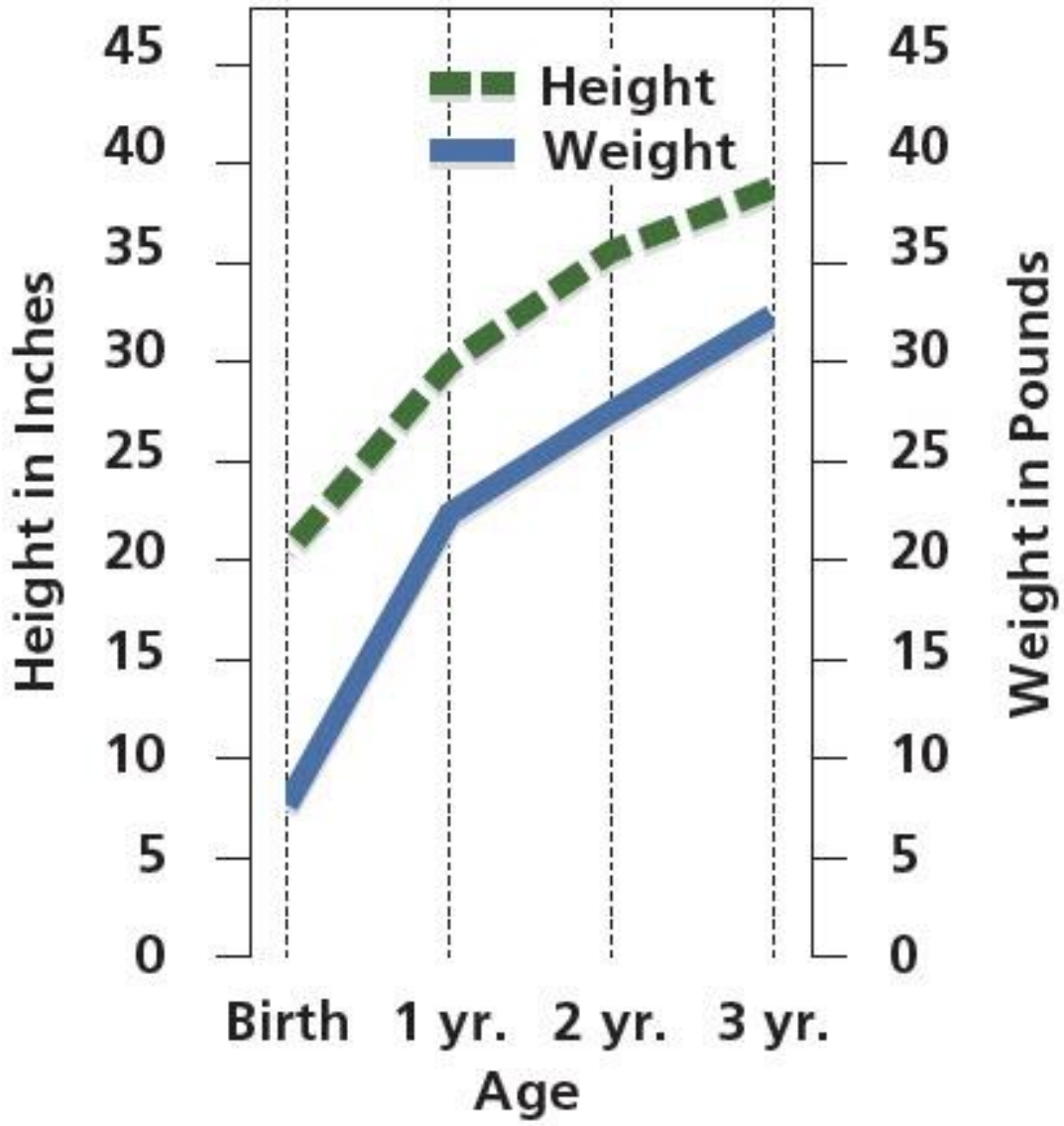


Taste and Smell

Show preferences to certain stimulation.

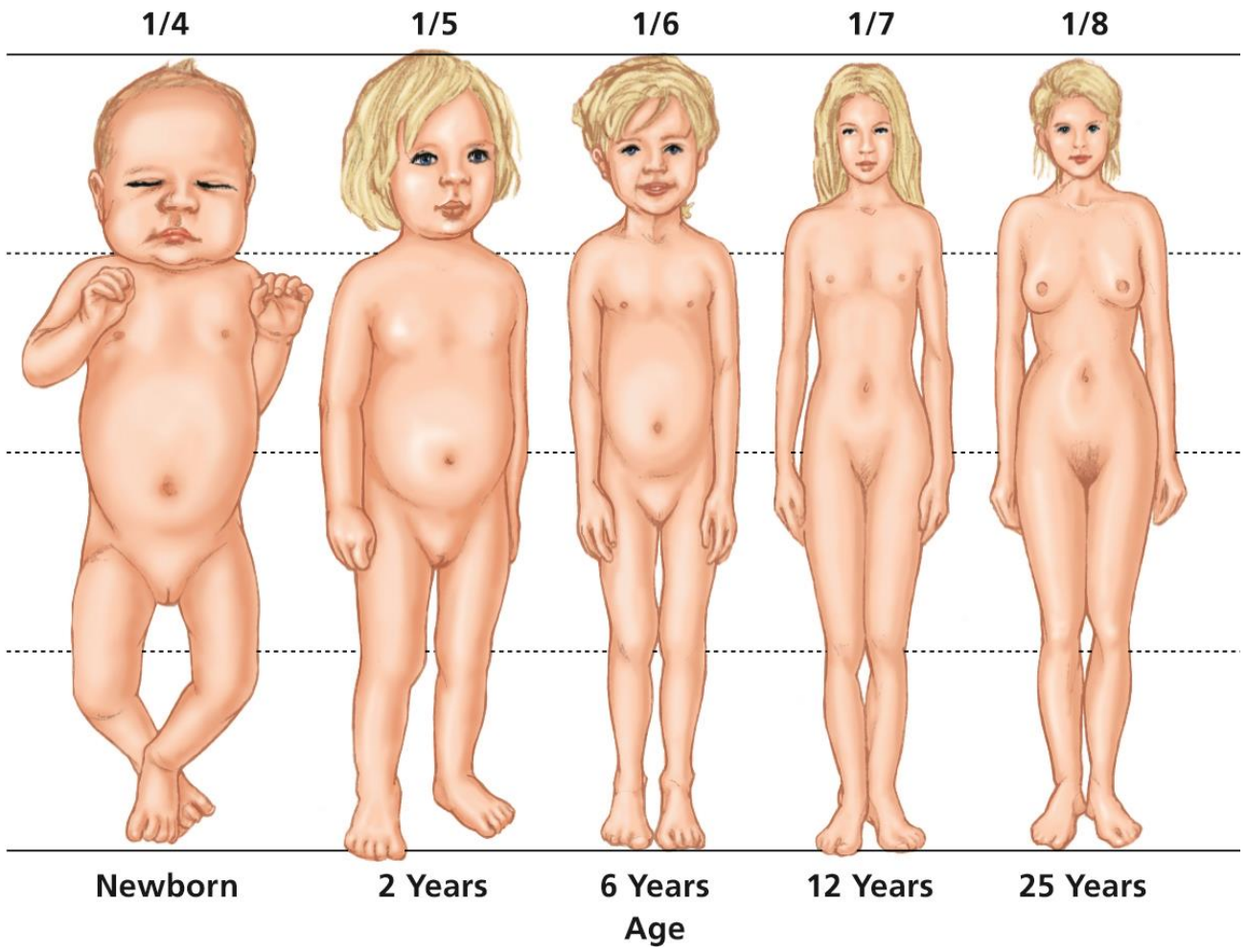
4.1 Rapid Physical Changes

- Newborns on average weigh about 7.5 pounds and are about 20 inches in length.
- Human Growth Hormone (HGH): All growth, except CNS
- Thyroid Stimulating Hormone (TSH): Central Nervous System
- Sleep important*
- Sleep: about 16.5 hours a day (on and off)



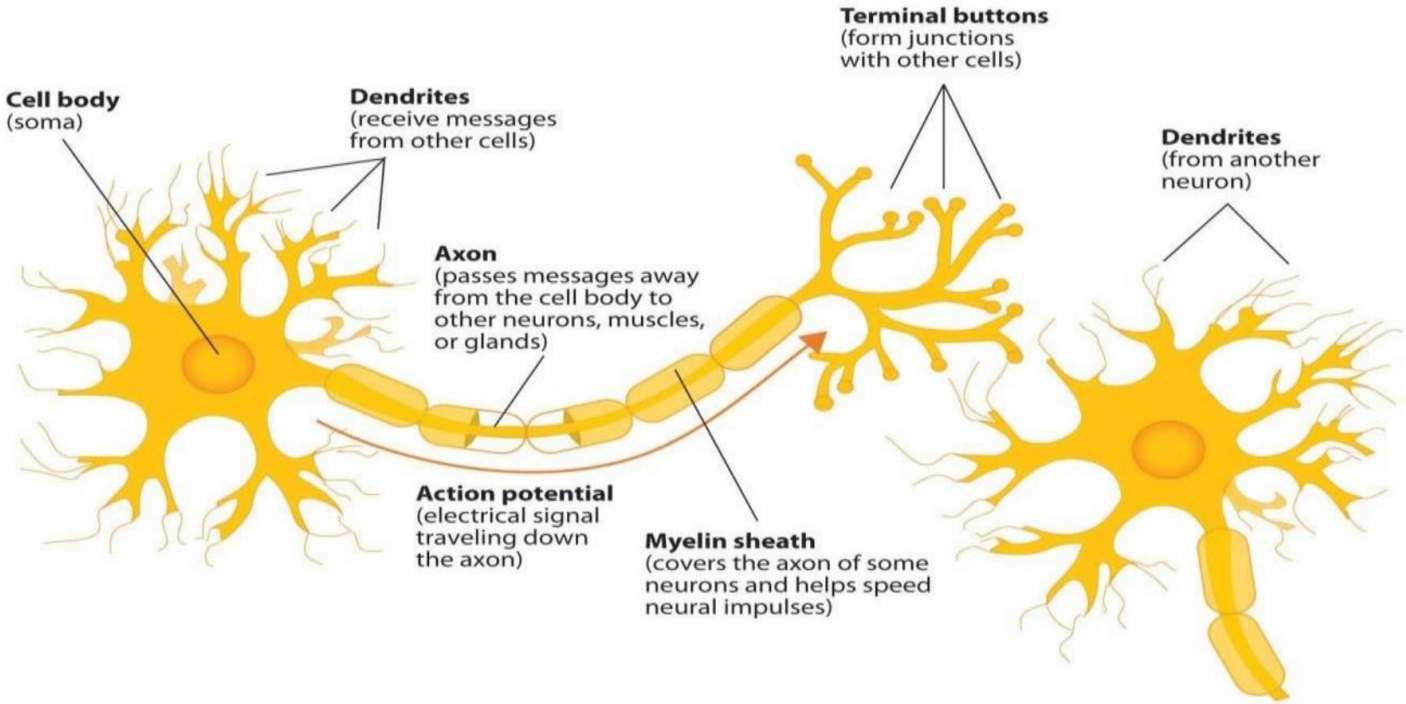
4.2 Proportions of the Body

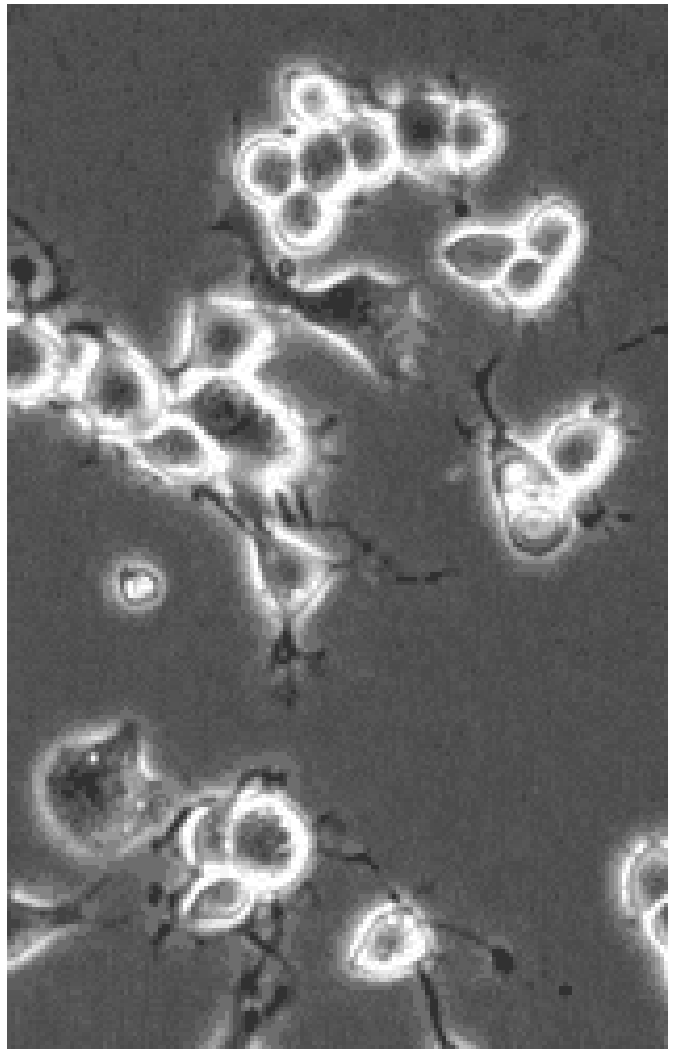
- Womb: 50%
- Birth: 25%
- Adult: 20%



4.2 Proportions of the Body

- Most neurons present at birth, but immature.
- Dendrites growth increases
- Synaptogenesis
- Myelin develop
- Use it or lose it





https://www.medgif.com/neurons-growing-in-a-cell-culture/

4.3 Reflexes

Sucking

Rooting

Grasp

Babinski

Moro

Tonic Neck

Stepping

4.3 Reflexes

Sucking

Sucking on anything that touches the lips

4.3 Reflexes

Rooting
Turning the head when the cheek is touched

4.3 Reflexes

Grasping
Fingers automatically grip anything that touches the palm of the hand

4.3 Reflexes

Babinski

The toes will fan out and curl when the sole of the foot is stroked from the heel to toe

4.3 Reflexes

Moro

A sudden noise or loss of support to the head and neck will cause infants to spread out their arms and legs then quickly contract the limbs inward

4.3 Reflexes

Tonic Neck

When lying on the back with the head on one side infants will extend the arm and leg on that side while flexing the limns on the opposite side.

4.3 Reflexes

Stepping

Legs move in stepping like motion when feet touch a smooth surface

4.4 Gross Motor Skills

- Voluntary movements involve the use of large muscle groups and are typically large movements of the arms, legs, head, and torso.

2 Months

- Can hold head up and begins to push up when lying on tummy
- Makes smoother movements with arms and legs

4 Months

- Holds head steady, unsupported
- Pushes down on legs when feet are on a hard surface
- May be able to roll over from tummy to back
- Brings hands to mouth
- When lying on stomach, pushes up to elbow

6 Months

- Rolls over in both directions (front to back, back to front)
- Begins to sit without support
- When standing, supports weight on legs and might bounce
- Rocks back and forth, sometimes crawling backward before moving forward

Libertus (2016) [Awa]

9 Months

- Stands, holding on
- Can get into sitting position
- Sits without support
- Pulls to stand
- Crawls

1 Year

- Gets to a sitting position without help
- Pulls up to stand, walks holding on to furniture ("cruising")
- May take a few steps without holding on
- May stand alone

18 Months

- Walks alone
- May walk up steps and run
- Pulls toys while walking
- Can help undress self

2 Years

- Stands on tiptoe
- Kicks a ball
- Begins to run
- Climbs onto and down from furniture without help
- Walks up and down stairs holding on
- Throws ball overhand

Kozlowski (2011) [Angel]

4.5 Fine Motor Skills

- More exact movements of the feet, toes, hands, and fingers.

2 Months

- Grasps reflexively
- Does not reach for objects
- Holds hands in fist

4 Months

- Brings hands to mouth
- Uses hands and eyes together, such as seeing a toy and reaching for it
- Follows moving things with eyes from side to side
- Can hold a toy with whole hand (palmar grasp) and shake it and swing at dangling toys

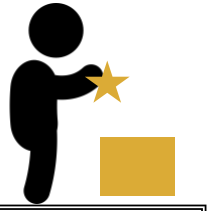
6 Months

- Reaches with both arms
- Brings things to mouth
- Begins to pass things from one hand to the other

Libertus (2016) [Awa]

9 Months

- Puts things in mouth
- Moves things smoothly from one hand to the other
- Picks up things between thumb and index finger (pincer grip)

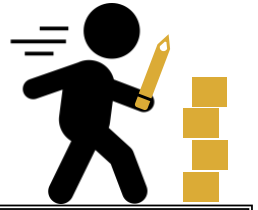


1 Year

- Reaches with one hand
- Bangs two things together
- Puts things in a container, takes things out of a container
- Let's things go without help
- Pokes with index (pointer) finger

18 Months

- Scribbles on own
- Can help undress herself
- Drinks from a cup
- Eats with a spoon with some accuracy
- Stacks 2-4 objects



2 Years

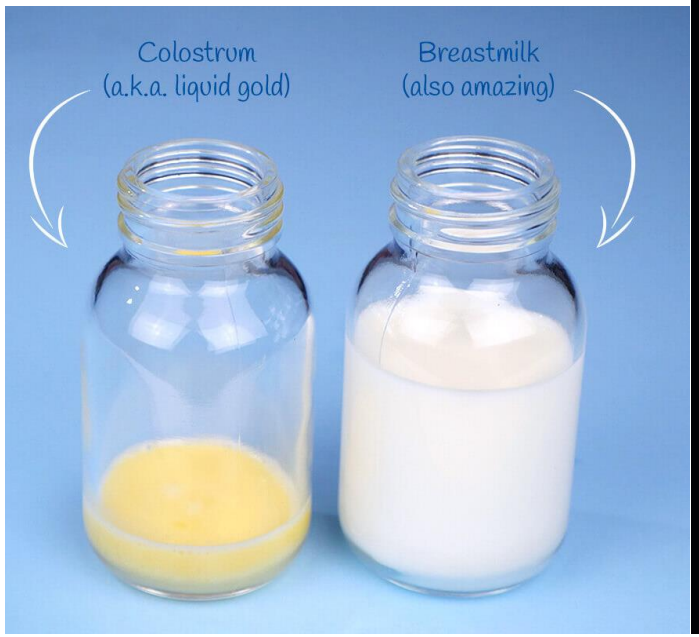
- Builds towers of 4 or more blocks
- Might use one hand more than the other
- Makes copies of straight lines and circles
- Enjoys pouring and filling
- Unbuttons large buttons
- Unzips large zippers
- Drinks and feeds self with more accuracy

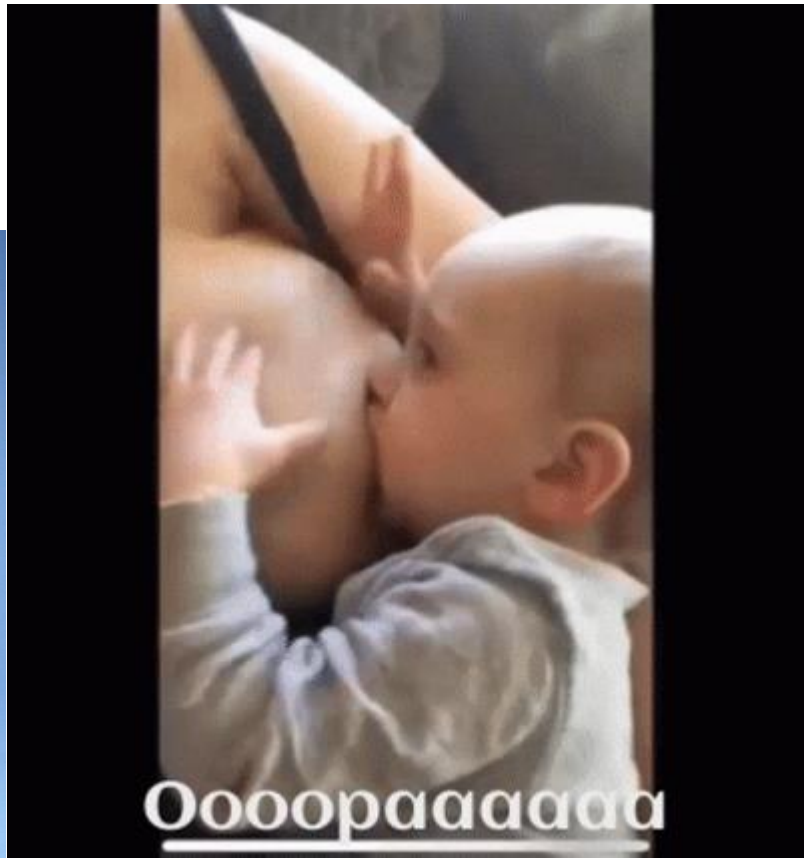
Kozlowski (2011) [Angel]

4.7 Nutrition: Breastfeeding

- Colostrum: the first breast milk produced during pregnancy and just after birth
- rich in nutrients and antibodies
- fat, sugar, water, and proteins
- stimulates contractions in the mother's uterus to help it regain its normal size
- Lower risk of (6 months*):
  - Ovarian cancer
  - Of developing type 2 diabetes
  - Rheumatoid arthritis
- Free(ish)
  - Cost (mental health, time, diet)

Huang (2015) [Briana B.]





4.7 Nutrition: Breastfeeding Challenges

- Most breastfeed moms in the US stop breastfeeding at about 6-8 weeks, often to return to work outside the home.
- Does workplace support breastfeeding? Insurance → free breast pump!!

https://lolalykke.com/blogs/mamahood-manuals/why-use-a-breast-pump-benefits-of-pumping-breast-milk

4.7 Nutrition: Breastfeeding Alternatives

- Can’t or shouldn’t breastfeed: low milk supply, previous breast surgeries, illicit drug use, medications, infectious disease, and inverted nipples.
- Some moms just don’t want to (and that’s ok)
- Breastfed and bottle-fed infants adjust equally well emotionally

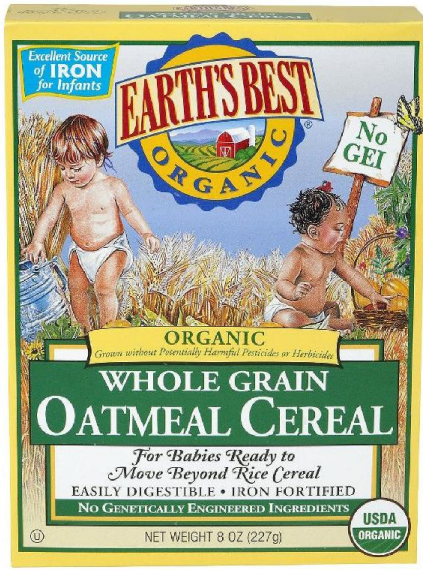
https://www.healthychildren.org/English/ages-stages/baby/formula-feeding/Pages/choosing-an-infant-formula.aspx

4.7 Nutrition: Solids

- The American Academy of Pediatrics recommends children be introduced to foods other than breast milk or infant formula when they are about 6 months old.

- Important- ready for solids when:
  - Child can sit with little or no support.
  - Child has good head control.
  - Child opens his or her mouth and leans forward when food is offered.

- Try one food at a time at first and there should be 3 to 5 days before another food is introduced



4.7 Nutrition: Solids

- The eight most common allergenic foods are:
  - Milk
  - Eggs
  - Fish
  - Shellfish
  - Tree nuts
  - Peanuts
  - Wheat
  - Soybeans

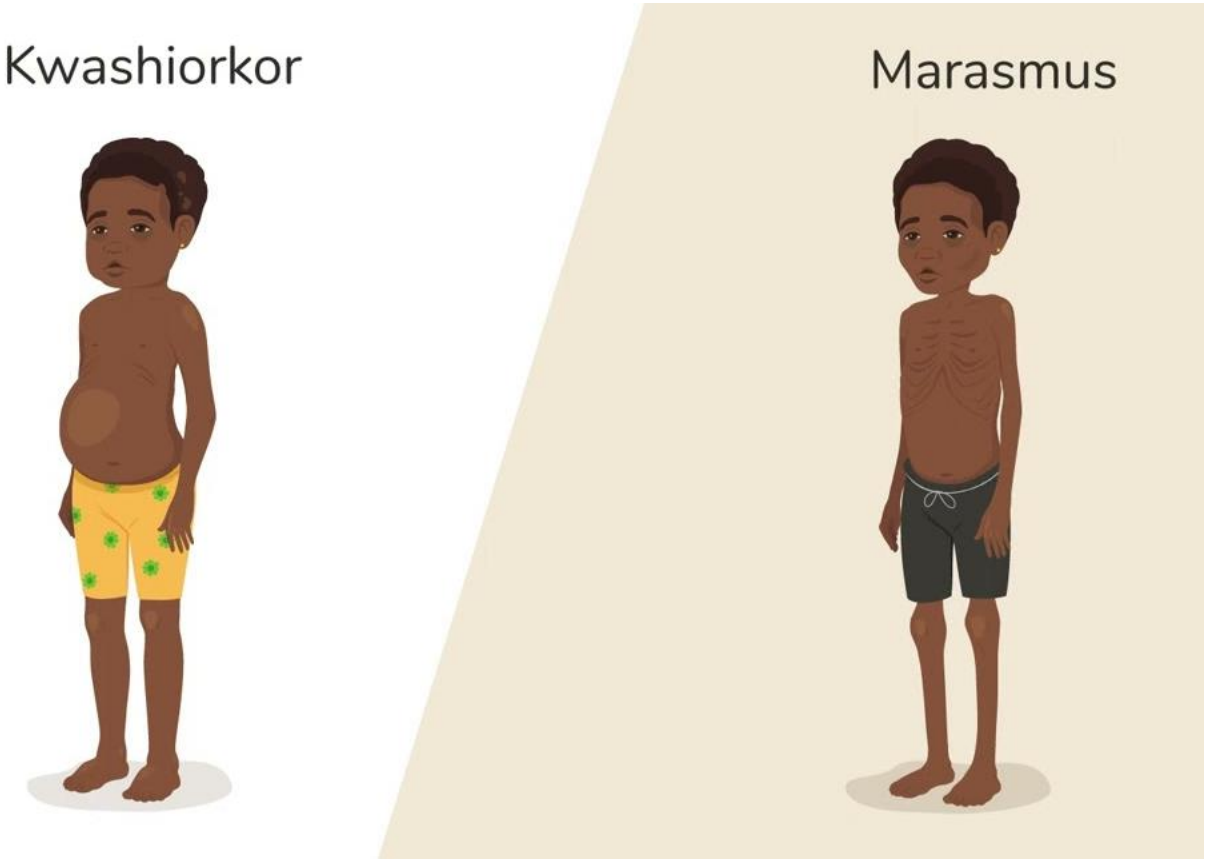







4.7 Nutrition: Malnutrition

- Infantile Marasmus: starvation due to lack of calories and protein.
- Kwashiorkor: diet deficit in protein, body begins to break down organs
- Long-term cognitive effects of early malnutrition



4.7 Nutrition: Milk Amnesia

- A condition in which milk consumption leads to a lack of iron in the diet

Photo Credit: Gawker

A recent facebook posting recommending limiting milk intake prompted questions from followers about iron deficiency anemia from milk. Nutrition and iron balance is actually a relatively lengthy discussion, so I will try to explain it here.

Short answer: Cow's milk has little iron. When kids drink a lot of milk, they don't eat iron-containing foods in sufficient volumes. Cow's milk also has big proteins that can cause microscopic bleeding in the gut. The more milk consumed, the more bleeding (though usually still not seen in the stools).

More milk = more blood loss from the gut, but less blood produced because less iron in the diet = anemia

Iron is used to build healthy red blood cells that carry oxygen throughout our bodies. Too few red blood cells in the body is called anemia. Red blood cells are made in our bone marrow and they live for about 3 months. It is important for the body to continually make new red blood cells as it breaks down and removes old ones.

https://survivorpediatrics.wordpress.com/2012/04/11/excessive-milk-can-cause-anemia-how/

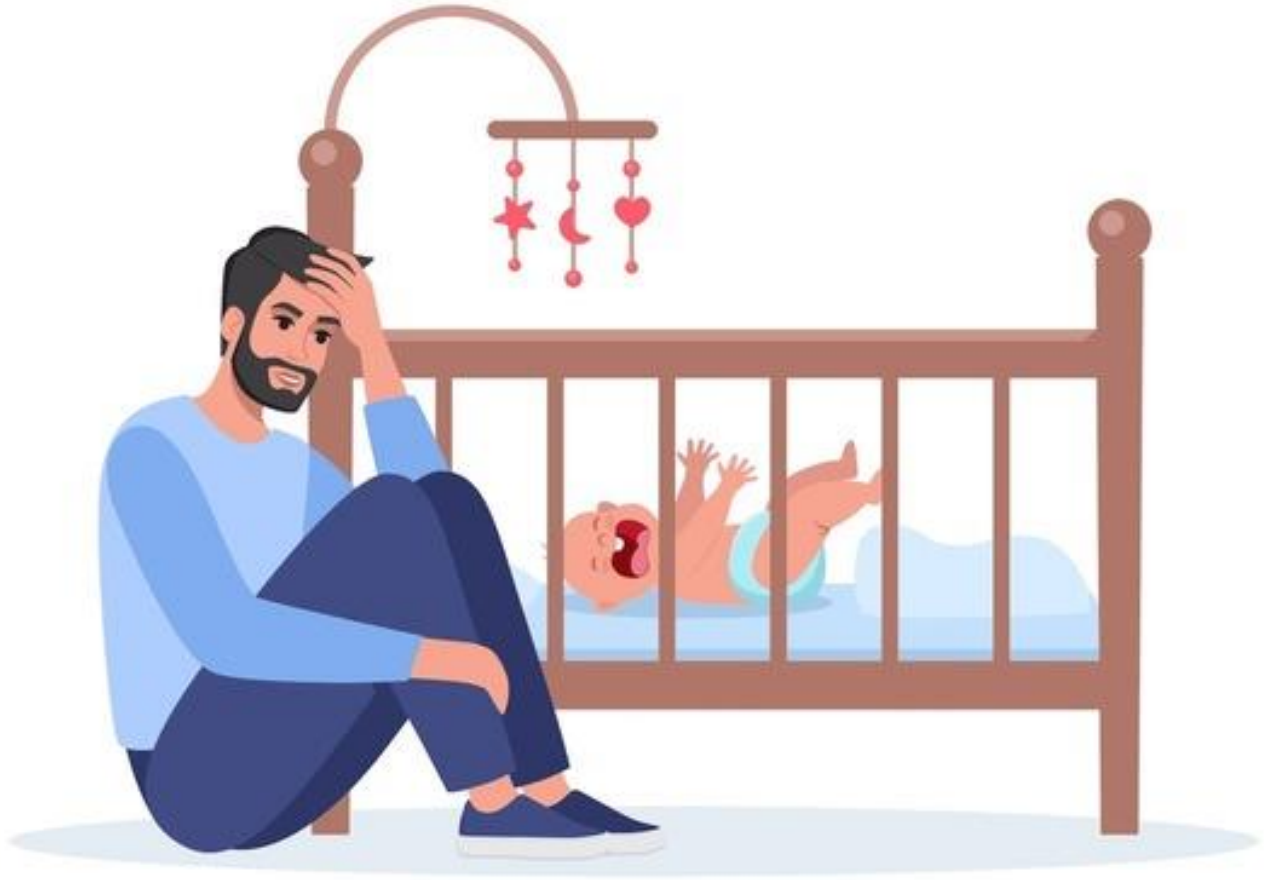
4.7 Nutrition: Failure to Thrive

- Occurs in children whose nutritional intake is insufficient for supporting normal growth and weight gain
- Physical or Mental conditions
- Environmental factors
- Co-occuring

Demeusy (2018) [Giselle]

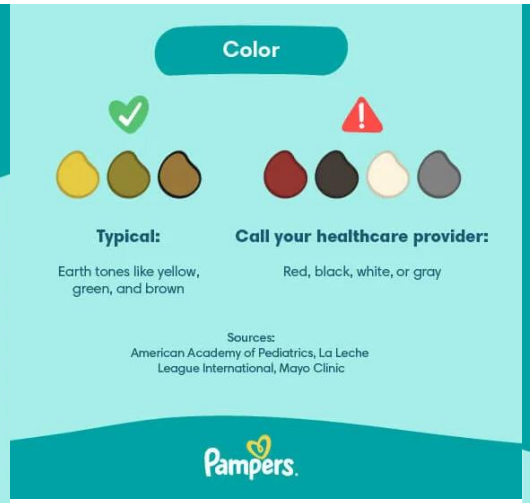
4.8 Health: Common Physical Conditions and Issues during Infancy

- Bowel Movements
- Colic
- Diaper Rash
- Spitting up/Vomit
- Teething
- Urination
- Jaundice



4.8 Health: Common Physical Conditions and Issues during Infancy

Bowel Movements
Poopie changes from day to day



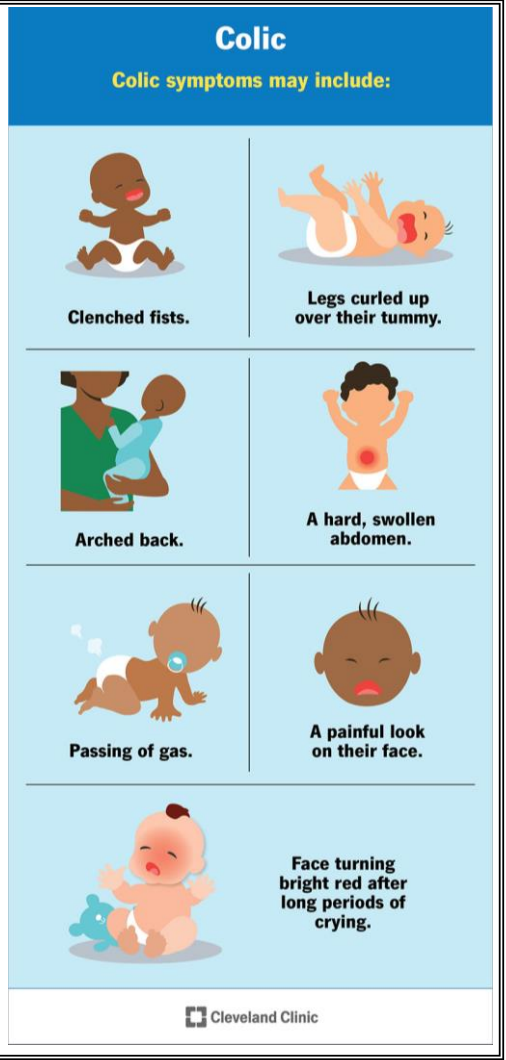
https://www.babycenter.com/baby-poop-photos

https://www.pampers.com/en-us/baby/diapering/article/baby-poop

4.8 Health: Common Physical Conditions and Issues during Infancy

Colic

Cry inconsolably or scream, extend or pull up their legs, and pass gas



4.8 Health: Common Physical Conditions and Issues during Infancy

Shaken Baby Syndrome

4.8 Health: Common Physical Conditions and Issues during Infancy

Diaper Rash
A rash on the skin covered by a diaper

4.8 Health: Common Physical Conditions and Issues during Infancy

Spitting up/vomit

Common occurrence for young infants and is usually not a sign of a more serious problem. But if an infant is not gaining weight or shows other signs of illness, a health care provider should be consulted

Spit Up or Vomiting?

Sharon MAZEL
PARENTING & PREGNANCY EXPERT

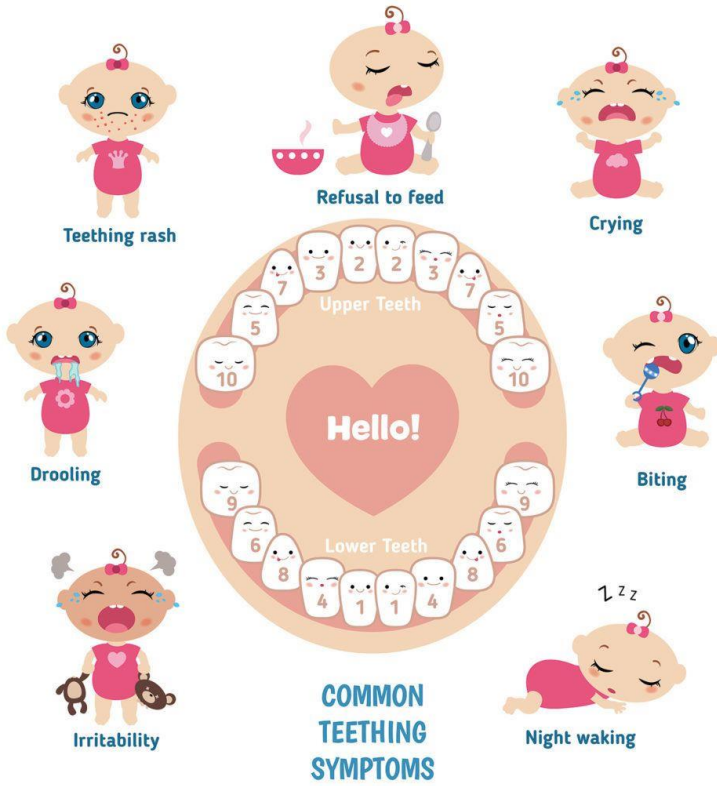
- Spit up tends to be accompanied by a burp
- Spit up tends to happen with a change of position
- Spit up usually stops around age 6 to 9 months
- Baby is usually not disturbed by spit up

- Vomiting tends to be a bigger volume than a spit up
- Vomiting is more forceful than spit up.
- Vomit can travel inches across the room
- Baby is usually upset by vomiting

4.8 Health: Common Physical Conditions and Issues during Infancy

Teething

- Baby teeth begin to appear generally about 6 months after birth.
- Full set of these teeth in place by age 3.
- The FDA does not recommend gum-numbing medications with an ingredient called benzocaine because they can cause a potentially fatal condition in young children.



4.8 Health: Common Physical Conditions and Issues during Infancy

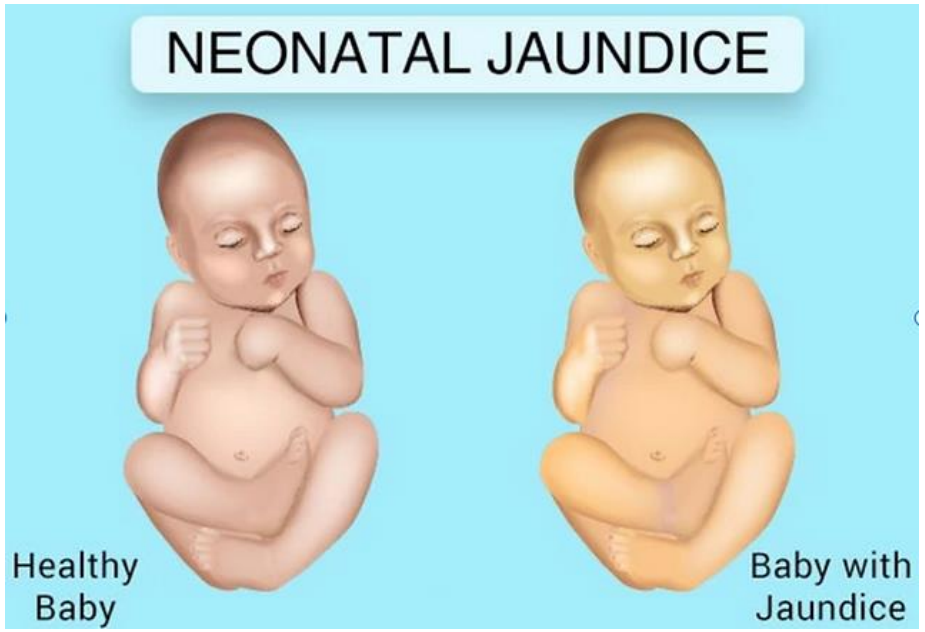
Urination

- Every 1 to 3 hours or as infrequently as every 4 to 6 hours
- Concern: if you see Blood*

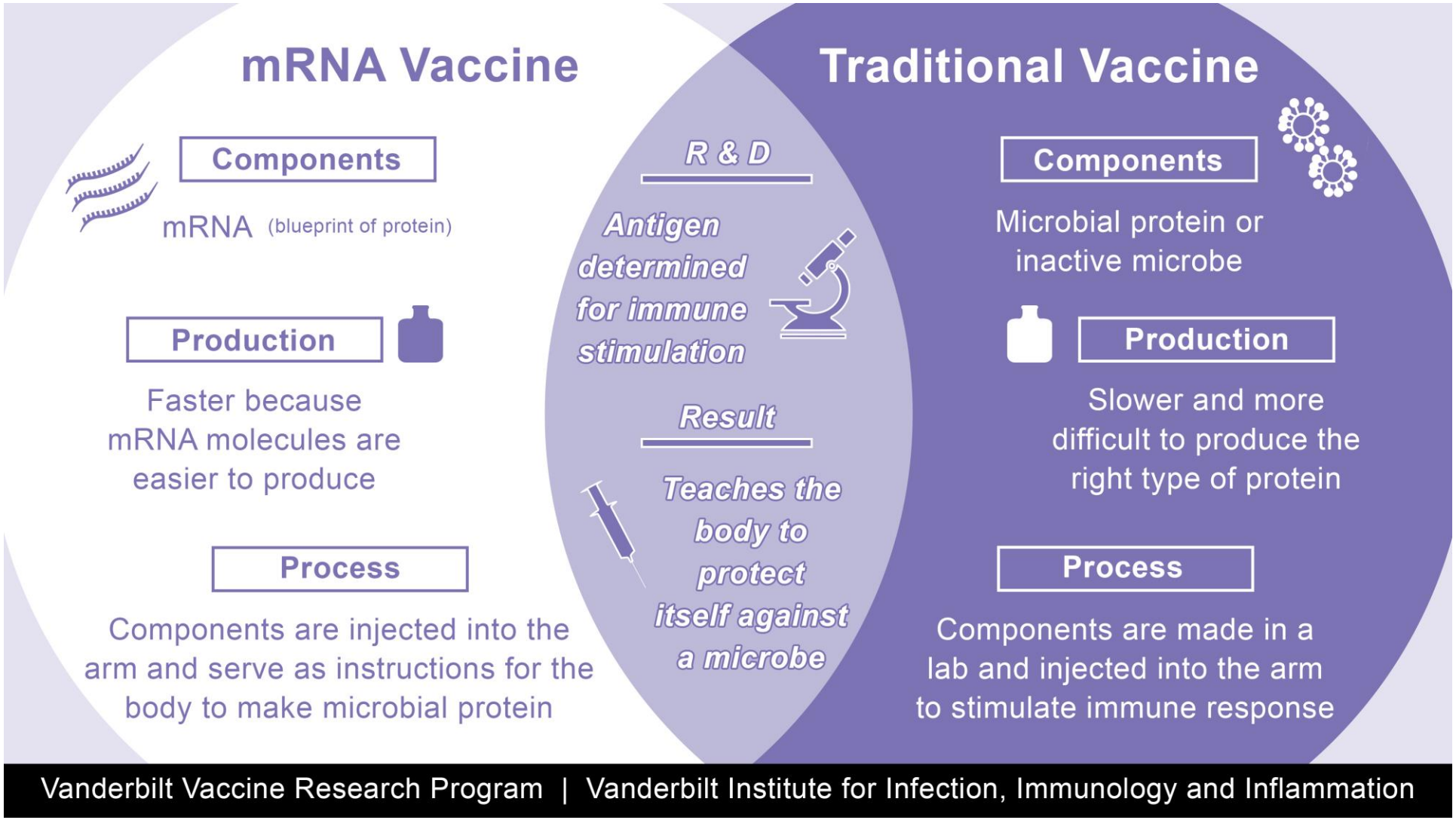
4.8 Health: Common Physical Conditions and Issues during Infancy

Jaundice

- Jaundice can cause an infant's skin, eyes, and mouth to turn a yellowish color.
- Harder to see on dark-skinned babies- but you can tell in eyes and feet.
- Buildup of bilirubin, but liver catches up eventually.
- Phototherapy—a treatment using a special lamp—to help break down the bilirubin in their bodies.



4.8 Health: Protecting Health through Immunization



4.8 Health: Protecting Health through Immunization

2023 Recommended Immunizations for Children from Birth Through 6 Years Old

VACCINE	Birth	1 MONTH	2 MONTHS	4 MONTHS	6 MONTHS	12 MONTHS	15 MONTHS	18 MONTHS	19–23 MONTHS	2–3 YEARS	4–6 YEARS
HepB Hepatitis B	HepB	HepB			HepB						
RV* Rotavirus			RV	RV	RV*						
DTaP Diphtheria, Pertussis, & Tetanus			DTaP	DTaP	DTaP		DTaP				DTaP
Hib* *Haemophilus influenzae* type b			Hib	Hib	Hib*	Hib					
PCV13, PCV15 Pneumococcal disease			PCV	PCV	PCV	PCV					
IPV Polio			IPV	IPV	IPV						IPV
COVID-19** Coronavirus disease 2019					COVID-19**						
Flu† Influenza					Flu (One or Two Doses Yearly)†						
MMR Measles, Mumps, & Rubella						MMR					MMR
Varicella Chickenpox						Varicella					Varicella
HepA‡ Hepatitis A						HepA‡		HepA‡			

FOOTNOTES

RV* **Hib***
Administering a third dose at age 6 months depends on the brand of Hib or rotavirus vaccine used for previous dose.

COVID-19**
Number of doses recommended depends on your child's age and type of COVID-19 vaccine used.

Flu†
Two doses given at least 4 weeks apart are recommended for children age 6 months through 8 years of age who are getting an influenza (flu) vaccine for the first time and for some other children in this age group.

HepA‡
Two doses of Hep A vaccine are needed for lasting protection. The 2 doses should be given between age 12 and 23 months. Both doses should be separated by at least 6 months. Children 2 years and older who have not received 2 doses of Hep A should complete the series.

ADDITIONAL INFORMATION

1. If your child misses a shot recommended for their age, talk to your child's doctor as soon as possible to see when the missed shot can be given.
2. If your child has any medical conditions that put them at risk for infection (e.g., sickle cell, HIV infection, cochlear implants) or is traveling outside the United States, talk to your child's doctor about additional vaccines that they may need.

Talk with your child's doctor if you have questions about any shot recommended for your child.

U.S. Department of Health and Human Services
Centers for Disease Control and Prevention

FOR MORE INFORMATION
Call toll-free: 1-800-CDC-INFO (1-800-232-4636)
Or visit: cdc.gov/vaccines/parents

AAFP American Academy of Family Physicians
American Academy of Pediatrics
DEDICATED TO THE HEALTH OF ALL CHILDREN™

https://www.cdc.gov/vaccines/parents/schedules/index.html

will be updated with 2024 guidelines

4.8 Health: Protecting Health through Immunization

Vaccine	7 Years	8 Years	9 Years	10 Years	11 Years	12 Years	13 Years	14 Years	15 Years	16 Years	17 Years	18 Years
COVID-19* Coronavirus disease 2019	COVID-19*											
Flu** Influenza	Flu (One or Two Doses Yearly)**		Flu (One Dose Yearly)									
Tdap Tetanus, Diphtheria, & Pertussis					Tdap							
HPV† Human papillomavirus				HPV†								
MenACWY Meningococcal disease					MenACWY					MenACWY		
MenB Meningococcal disease										MenB		

Catching Up On Missed Childhood Vaccination†

Vaccine	7 Years	8 Years	9 Years	10 Years	11 Years	12 Years	13 Years	14 Years	15 Years	16 Years	17 Years	18 Years
MMR Measles, Mumps, & Rubella	MMR											
Varicella Chickenpox	Varicella											
HepA Hepatitis A	HepA											
HepB Hepatitis B	HepB											
IPV Polio	IPV											

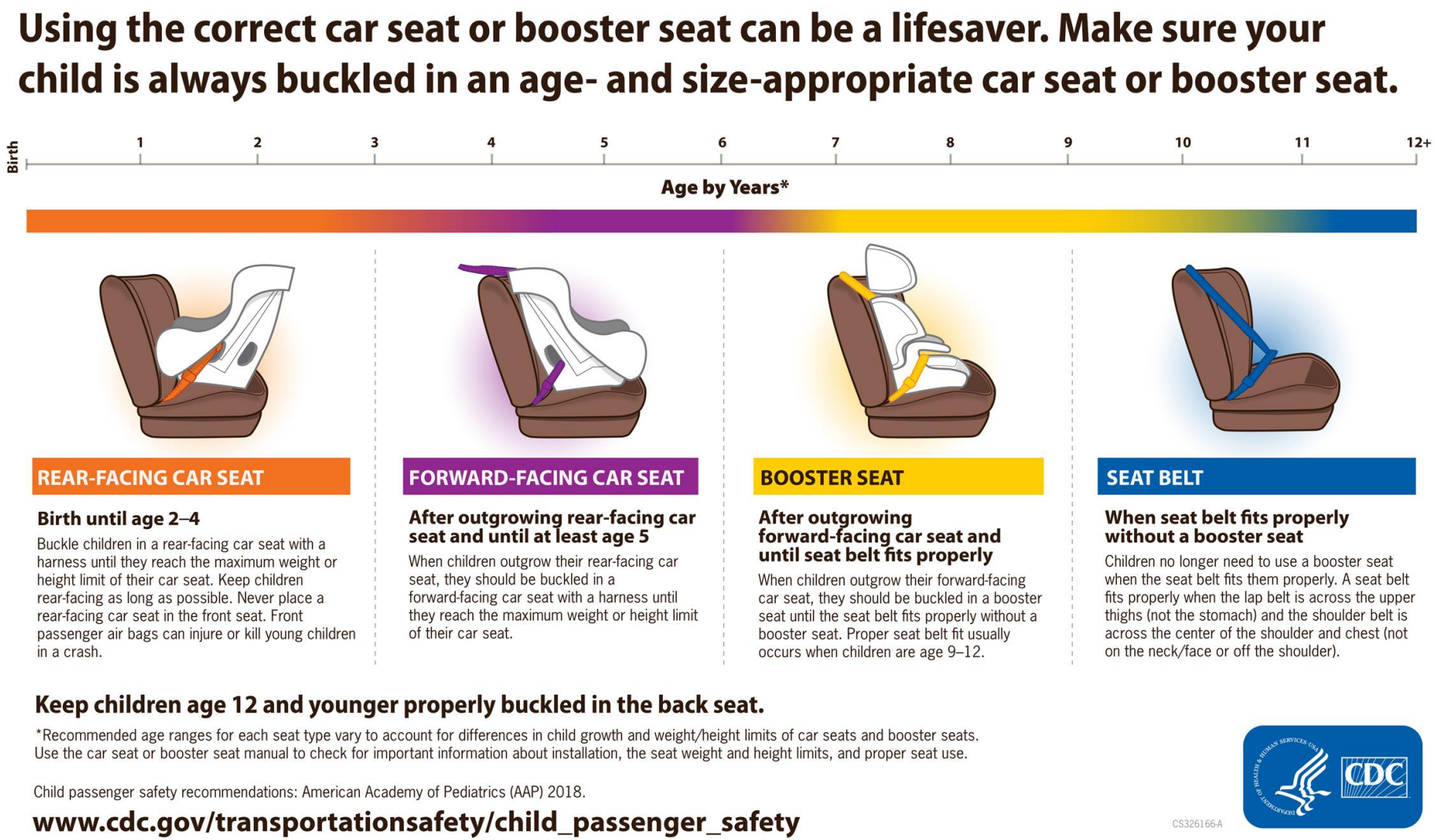
ONLY IN PLACES WHERE DENGUE IS COMMON — MUST have a laboratory test confirming past dengue infection

Vaccine	7 Years	8 Years	9 Years	10 Years	11 Years	12 Years	13 Years	14 Years	15 Years	16 Years	17 Years	18 Years
Dengue			Dengue									

https://www.cdc.gov/vaccines/parents/schedules/index.html ***will be updated with 2024 guidelines***

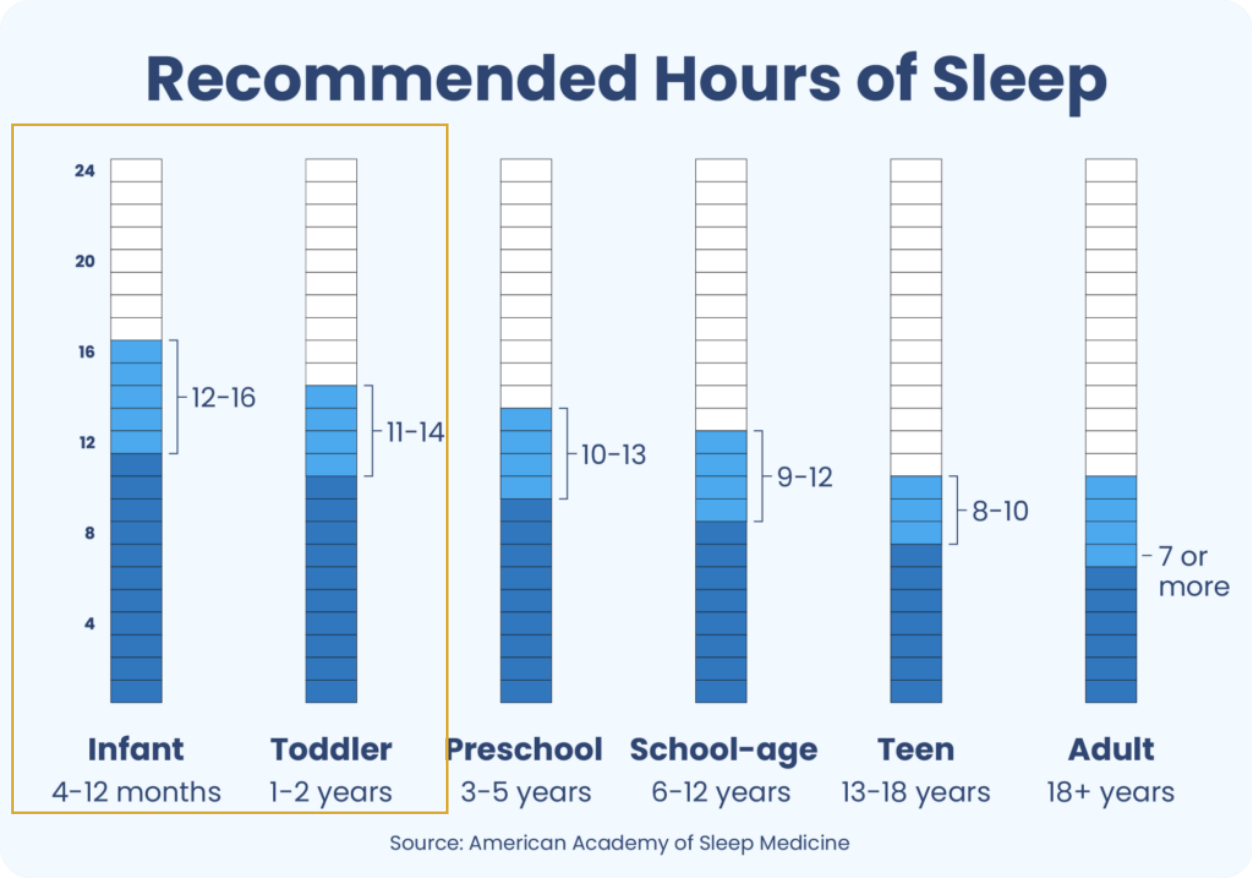
4.8 Health: Car Safety

- Motor vehicle injuries are a leading cause of death among children in the United States
- Preventable
- Always read manufacturer instructions



4.9 Sleep

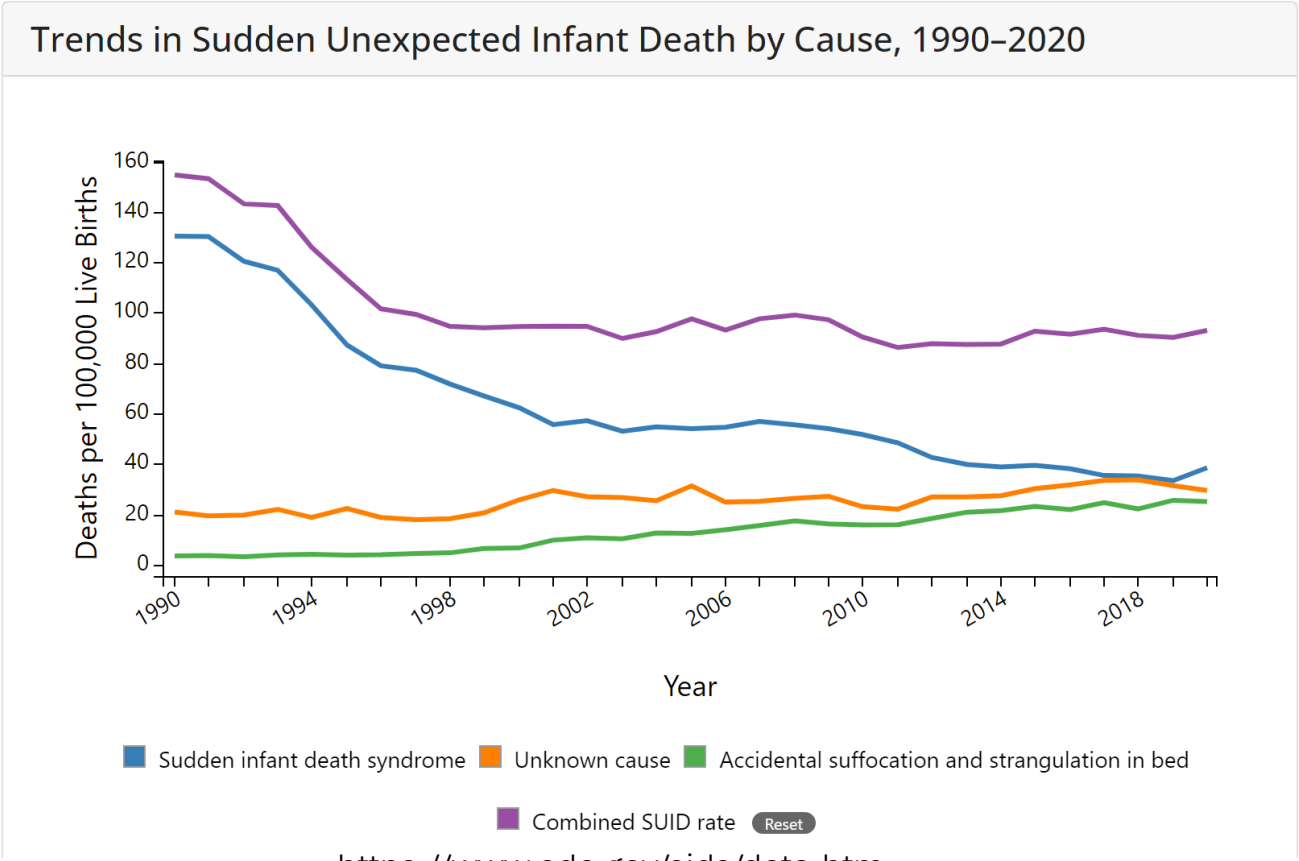
- About 16.5 hours in 24-hour period.
- By two-year-old, average of 10 hours.



https://www.sleepfoundation.org/how-sleep-works/sleep-facts-statistics

4.9 Sleep: Sudden Infant Death Syndrome

- When the death of a healthy infant occurs suddenly and unexpectedly, and medical and forensic investigation findings (including an autopsy) are inconclusive.
- Leading cause of death in infants 1 to 12 months old

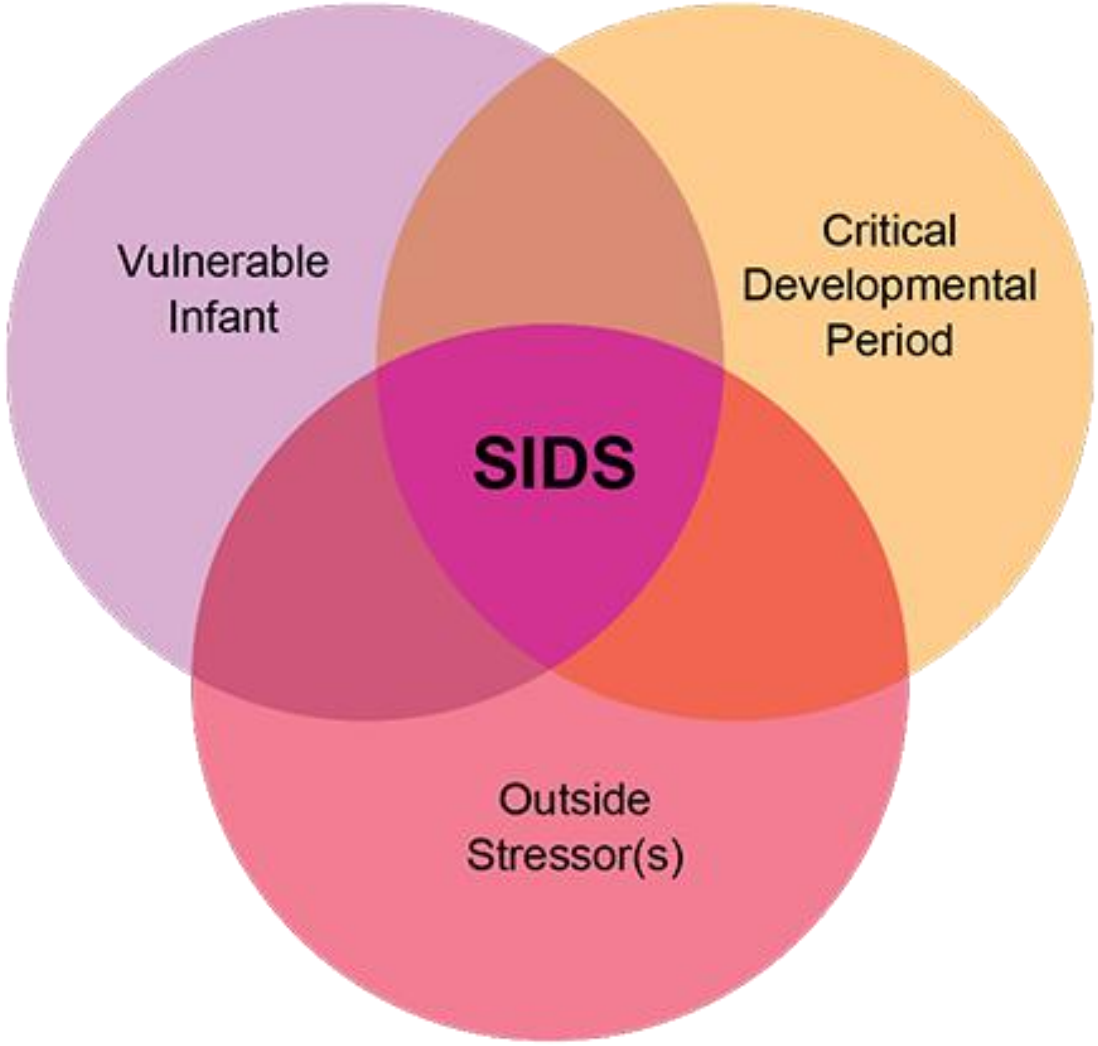


https://www.cdc.gov/sids/data.htm

4.9 Sleep: Sudden Infant Death Syndrome

Risk Factors Babies are at higher risk for SIDS if they:

- Sleep on their stomachs
- Sleep on soft surfaces, such as an adult mattress, couch, or chair or under soft coverings
- Sleep on or under soft or loose bedding
- Get too hot during sleep.
- Are exposed to cigarette smoke in the womb or in their environment, such as at home, in the car, in the bedroom, or other areas
- Sleep in an adult bed with parents, other children, or pets; this situation is especially dangerous if:
- The adult smokes, has recently had alcohol, or is tired.
- The baby is covered by a blanket or quilt.
- The baby sleeps with more than one bed-sharer.
- The baby is younger than 11 to 14 weeks of age.



4.9 Sleep: Safe Sleep

Reducing the Risks

- Always place baby on his or her back to sleep (for naps and at night).
- Use a firm and flat surface.
- Use only a tight fitting sheet on the sleep surface; no other bedding or soft items in the sleep area.
- Breastfeed.
- Share your room with a baby, but on a separate surface designed for infants (not your bed).
- Do not put soft objects, toys, crib bumpers, or loose bedding under, over, or anywhere near baby's sleep area.
- Do no smoke during pregnancy or allow smoking around baby.
- Consider giving baby a pacifier.
- Do not let baby get too hot during sleep.
- Get regular health care (including vaccines).
- Avoid products that go against safe sleep recommendations, especially those that claim to prevent or reduce the risk of SIDS.
- Do not use heart or breathing monitors to reduce the risk of SIDS.

4.9 Sleep: Safe Sleep