

Progenitrix

Prenatal Newsletter

Critical periods in prenatal development

The impacts of teratogens

What is a healthy pregnancy?

Eliminate risk: SIDS, injury, infection

Attachment style begins now

The 3 areas of infant development

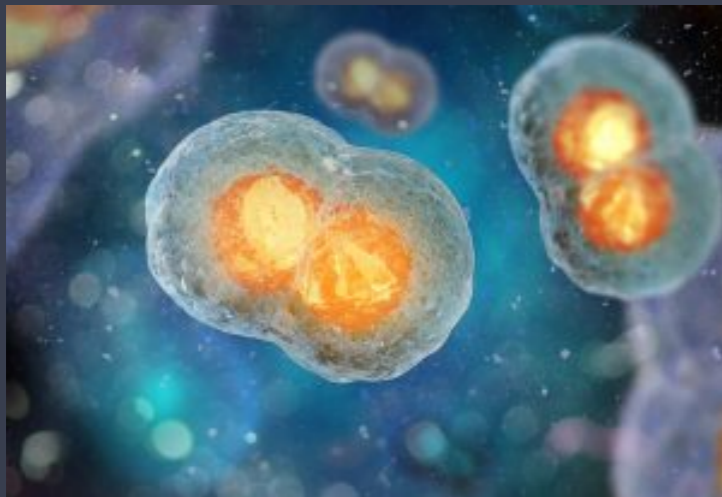
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PRENATAL DEVELOPMENT'S CRITICAL PERIODS

The *trimesters* of pregnancy refer to the three stages of prenatal development: germinal, embryonic, and fetal.

Germinal



0-2 weeks

The fertilized egg, or zygote, divides from a single cell, again and again, in the process of mitosis. The body of cells form a blastocyst and differentiate as ectoderm, endoderm, and mesoderm. When the blastocyst attaches to the uterine wall, menstruation ceases (Belsky, 2018).

Embryonic



3-8 weeks

Once the blastocyst implants in the uterus, the placenta forms (Belsky, 2018). Neural tube formation begins the development of the brain, and the central and peripheral nervous systems. The major organs take shape. Arms, legs, fingers and toes appear.

Fetal



9 weeks - birth

Now that the limbs have formed, eyebrows, fingernails, and hair follicles develop. Between months 4 and 7, the baby's brain doubles in size. Hearing and sight emerge as the sensory organs develop in step with the nervous system (Insel et al., 2018).

The impact of

TERATOGENS

"A teratogen (from the Greek words *teras*, 'monster,' and *gen*, 'creating') is the name for any substance that crosses the placenta to harm the fetus" (Belsky, 2018, p. 127).

Examples of teratogens

- infectious disease
measles, CMG, toxoplasmosis
- medications
antibiotics, psychotropics
- recreational drugs
alcohol, meth, cocaine
- environmental hazards
radiation, lead, mercury, PCBs
- nutritional deficiency
folic acid (vitamin B₉)



Teratogens cause congenital disorders, or birth defects, resulting in physical and cognitive disabilities ranging from mild to severe. Some congenital disorders are genetic, and teratogenic exposure can increase their severity (Sanz, 2001).

Healthy Pregnancy Lowers Risk

Here are some proven nutritional and self-care activities for yourself and your baby to **reduce your prenatal risks** (Belsky, 2018; Insel et al., 2018; Shelov & American Academy of Pediatrics, 1991).



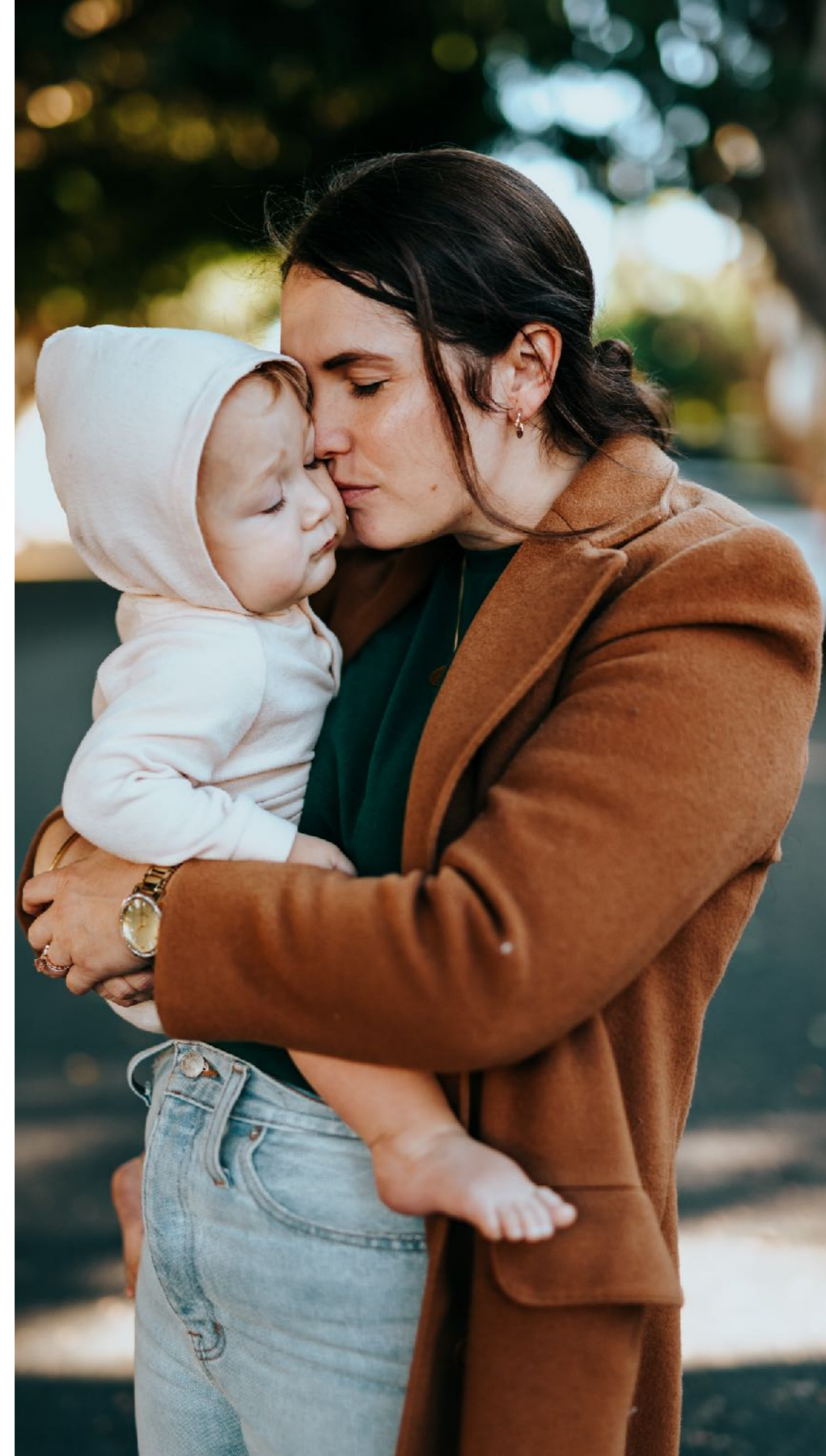
Doing this....	... Prevents this
400 mcg folic acid daily	anencephaly, spina bifida
Foods rich in calcium and iron	low birth weight, preeclampsia
Avoid alcohol	fetal alcohol syndrome, prematurity
Regular exercise	extended labor, C-section
25-35 lb. weight gain, BMI 18.5-24.9	hypertension, gestational diabetes
Get plenty of sleep	maternal and fetal stress, high blood pressure, cardiovascular disease
Practice meditation, breathing techniques	
Enjoy massages	
Stretch before bed	leg cramps

Attachment Style Begins Now

Attachment is our drive to connect with and relate to others. Our lifelong *attachment style* is largely determined by our experiences in infancy.

Here are the four main attachment styles (Bretherton, 1992; Belsky, 2018), and how your response to your baby's distress will influence your baby's attachment style behaviors.

Attachment Style	Parental Response to Infant Distress	Baby's Behavior
<u>Secure</u>	Sensitive, loving, prompt response	Seek proximity and maintain contact for comfort
<u>Avoidant</u>	Insensitive, rejecting, distant, disengaged	Not distressed when you leave, nor excited when you return
<u>Ambivalent</u>	Inconsistent, unavailable	Distressed when you leave but not comforted by your return
<u>Disorganized</u>	Atypical, abusive, neglectful, frightening or frightened	Confused or apprehensive in your presence, no strategy for need fulfillment



Advice

from

Baby

for

Minimizing

Infant Risk



“Check, check... is this thing on?”

Mom, I know you're getting advice from everybody these days about how take care of me, but allow me to chime in here. I don't want you to worry or be afraid...

So after we talk about infection, injury, and SIDS, you are still concerned, take comfort in the wealth of information at [Common Infant and Newborn Problems](#).

Infection

I'm a baby and I love to sleep, but if I don't wake up for feedings or spend part of the day alert, I might be lethargic, which may mean I'm sick.

If my breathing is fast, if I flare my nose or grunt when I breathe, or my skin is persistently blue, I might be in respiratory distress (Oswalt, n.d.).

In either case, call my pediatrician.

Injury

If we go somewhere in the car, please buckle me into a rear-facing carseat in the backseat of the car.

Don't let me wiggle or push with my legs right off the changing table, sofa, or bed.

I love to grab things with my hands and put them in my mouth. Keep your hot coffee out of my reach. And please don't make my bathwater too hot... 98.6° F maximum, please (Insel et al., 2018).

SIDS

3,400 American mommies lose their baby to sudden infant death syndrome (CDC, 2021). Don't lay me face down in a fluffy crib or I could smother. Let me sleep on my back, and I promise I won't snore.

Areas of Infant Development

Introducing three areas you can track as your newborn develops, each with exciting milestones to watch for (Oswalt, n.d.). This article provides a snapshot of infant development and you can read more at [Gracepoint's Infancy Introduction website](#).



1 ~ Cognitive

Babies progress from purely reflexive/reactive action like suckling and grasping to repeating actions they know bring satisfaction. This shows goal-directed behavior. Once a baby discovers *object permanence*, she knows that objects out of view or grasp still exist, which leads to expectations of cause and effect, and trust or distrust (Oswalt, n.d.). In this transition from sensorimotor phase to symbolic thought, memory extends from mimicking your movements now to repeating them the next day!



2 ~ Social

As babies experience the world, they soon realize that their needs interact with the needs of others. That "social smile" given to everyone becomes reserved for trusted confidants, and babies might shy from strangers whose facial expressions they cannot read (Belsky, 2018). Their natural temperament decides how quickly they will extend trust from primary caregiver (you) to others. When your baby encounters other children, her temperament will both exert itself and compromise to interact with the temperaments of other children.



3 ~ Language

"Whaa-aah" is usually a baby's first word, signaling hunger, fatigue, or discomfort. But your baby will soon mimic your words, first in the form of cooing and vowel sounds, followed by babbling vowels and consonants, leading to *holophrases*, which condense a few words like "I want juice" into one expression like "ja" (Belsky, 2018, p. 225), and then telegraphic speech, or rudimentary sentences.



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