



Neonatal Eating Assessment Tool – Mixed Breastfeeding and Bottle-feeding

(NeoEAT – Mixed Feeding)

Intended Use: The NeoEAT – Mixed Feeding is intended to assess observable symptoms of problematic feeding in infants less than 7 months old who are being fed with both breastfeeding and bottle-feeding. The NeoEAT – Mixed Feeding is intended to be completed by a caregiver that is familiar with the child's typical eating. This is most often a parent, but may be another primary caregiver.

Disclosure: The NeoEAT – Mixed Feeding does not replace a healthcare provider's clinical assessment. The NeoEAT – Mixed Feeding is also not intended to provide a diagnosis, but instead may provide the healthcare provider with an objective assessment of the infant's feeding in order to facilitate diagnosis and treatment decisions.

Referencing Information:

Please give appropriate credit to the authors when presenting, publishing, or otherwise referencing the Neonatal Eating Assessment Tool – Mixed Breastfeeding and Bottle-feeding (NeoEAT – Mixed Feeding).

Pados, B., Estrem, H., Thoyre, S., Park, J., & McComish, C. (2017). The Neonatal Eating Assessment Tool (NeoEAT): Development and content validation. *Neonatal Network: The Journal of Neonatal Nursing*, 36(6), 359-367. doi: 10.1891/0730-0832.36.6.359

Pados, B.F., Thoyre, S.M., & Galer, K. (2019). Neonatal Eating Assessment Tool – Mixed Breastfeeding and Bottle-Feeding (NeoEAT – Mixed Feeding): Factor analysis and psychometric properties. *Maternal Health, Neonatology, and Perinatology*, 5(12), 1-15. doi: 10.1186/s40748-019-0107-7.

Pados, B.F., Johnson, J., & Nelson, M. (2020). Neonatal Eating Assessment Tool – Mixed Breastfeeding and Bottle-feeding: Reference values and factors associated with problematic feeding symptoms in healthy, full-term infants. *Journal of the American Association of Nurse Practitioners*, 33(11), 938-946. doi: 10.1097/JXX.0000000000000476

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Neonatal Eating Assessment Tool - Mixed Breastfeeding and Bottle-feeding

(NeoEAT-Mixed Feeding)

Directions: We are interested in learning about your baby's eating and behavior. When filling this out, think about what is typical for your baby at this time (in the past week). This version of the NeoEAT is intended for babies who have fed both at the breast and by a bottle in the past week.

Infant Regulation

My baby...	5	4	3	2	1	0	Score
	Never	Almost Never	Sometimes	Often	Almost Always	Always	
1. eats enough to have at least 5 wet diapers per day (24 hours).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. is satisfied after eating.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3. is easy to console when upset (for example, stops crying when held or offered a pacifier).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4. roots when hungry (for example, sucks on fist, smacks lips, looks for breast/bottle)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5. is calm and relaxed when eating.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Infant Regulation Subscale Score							

Energy & Physiologic Stability

My baby...	0	1	2	3	4	5	Score
	Never	Almost Never	Sometimes	Often	Almost Always	Always	
6. gets exhausted during eating and is not able to finish.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7. is exhausted after eating.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
8. can only suck a few times before needing to take a break.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
9. needs to be encouraged to keep eating (such as, by touching or talking).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
10. needs tube feedings.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
11. gets pale or blue color around lips when eating.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
12. needs to rest during eating to catch his/her breath.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
13. takes more than 30 minutes to eat (including rest/burping periods).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

My baby...	Never	Almost Never	Sometimes	Often	Almost Always	Always	Score
14. breathes faster or harder when eating.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
15. holds breath when eating.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
16. eats more than 12 times per day (24 hours).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
17. wants to eat again within an hour after feeding.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
18. sweats/gets clammy when eating.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Energy & Physiologic Stability Subscale Score							

Gastrointestinal Tract Function

My baby...	0 1 2 3 4 5						Score
	Never	Almost Never	Sometimes	Often	Almost Always	Always	
19. seems uncomfortable after feeding.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
20. spits up in between feedings.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
21. chokes or coughs during eating.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
22. is uncomfortable if laid flat after eating.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
23. becomes stiff/rigid during or after eating.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
24. arches back during or after eating.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
25. coughs or chokes on saliva/spit when not eating.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
26. becomes upset during feeding (whines, cries, gets fussy).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
27. sounds gurgly or like they need to cough or clear their throat during or after eating.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
28. gets a stuffy nose when eating.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
29. spits up during feeding.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
30. throws up during feeding.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
31. throws up in between feedings.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

My baby...	Never	Almost Never	Sometimes	Often	Almost Always	Always	Score
32. needs to be burped more than once before the end of feeding.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
33. coughs in between feedings.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
34. is very gassy.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
35. turns red in face, may cry with stooling/pooping.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
36. gets a bloated (big or hard) tummy after eating.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
37. gets the hiccups.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
38. gags in between feedings when there is nothing in his/her mouth.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
39. tilts head back during or after eating.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
40. gulps when eating (swallows loudly).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
41. drools milk out of the side of the mouth when feeding.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
42. gags on a pacifier or toys put in mouth.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
43. gags on the bottle nipple.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
44. gets watery eyes when eating.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
45. gets red color around eyes or face when eating.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Gastrointestinal Function Subscale Score							

Sensory Responsiveness

My baby...	0 1 2 3 4 5						Score
	Never	Almost Never	Sometimes	Often	Almost Always	Always	
46. will only eat if fed in a certain way (for example, in a certain chair, or held upright).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
47. chews or bites on the nipple (bottle) when he/she should be sucking.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
48. will only eat if food (milk/formula/baby food) is a certain temperature.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
49. will only eat from a specific kind of bottle/nipple.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

My baby...	Never	Almost Never	Sometimes	Often	Almost Always	Always	Score
50. will only take the bottle from specific people (such as, by mom).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
51. refuses the bottle before having eaten enough (such as, turns head, pushes bottle away, pushes nipple out of mouth with tongue).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
52. needs help latching on to the bottle.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Sensory Responsiveness Subscale Score							

Feeding Flexibility

	0	1	2	3	4	5	
My baby...	Never	Almost Never	Sometimes	Often	Almost Always	Always	Score
53. needs help latching on to the breast (for example, needs a nipple shield or positioning help).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
54. refuses the breast before having eaten enough (such as, turns head, pushes breast away, pushes nipple out of mouth with tongue).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
55. chews or bites on the nipple (breast) when he/she should be sucking.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
56. has a hard time handling how fast milk comes out of the breast (for example, chokes, coughs, gags, or pulls off the breast).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
57. prefers bottle-feeding over breastfeeding.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
58. needs a bottle after breastfeeding.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
59. gags on the breast.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Feeding Flexibility Subscale Score							

If you would like to explain any of your answers or provide more information, please do so here:



NeoEAT - Mixed Feeding

Reference Values for Infants 0 - 2 months old

The following reference values are for infants between 0 months 0 days and 2 months 0 days old. If the child was born prior to 37 weeks post-menstrual age, please use the child's corrected age when determining which reference values to use.

	< 90th %	90th - 95th %	> 95th %
	No Concern	Concern	High Concern
Infant Regulation	< 8	8 - 9	10 - 25
Energy & Physiologic Stability	< 22	22 - 24	25 - 65
Gastrointestinal Tract Function	< 53	53 - 57	58 - 135
Sensory Responsiveness	< 13	13 - 16	17 - 35
Feeding Flexibility	< 13	13 - 16	17 - 35
Total Score	< 98	98 - 104	105 - 295



NeoEAT - Mixed Feeding

Reference Values for Infants 2 - 4 months old

The following reference values are for infants between 2 months 1 day and 4 months 0 days old. If the child was born prior to 37 weeks post-menstrual age, please use the child's corrected age when determining which reference values to use.

	< 90th %	90th - 95th %	> 95th %
	No Concern	Concern	High Concern
Infant Regulation	< 8	8 - 10	11- 25
Energy & Physiologic Stability	< 18	18 - 26	27 - 65
Gastrointestinal Tract Function	< 50	50 - 54	55 - 135
Sensory Responsiveness	< 14	14 - 17	18 - 35
Feeding Flexibility	< 12	12 - 14	15 - 35
Total Score	< 87	87 - 103	104 - 295



NeoEAT - Mixed Feeding

Reference Values for Infants 4 - 6 months old

The following reference values are for infants between 4 months 1 day and 6 months 0 days old. If the child was born prior to 37 weeks post-menstrual age, please use the child's corrected age when determining which reference values to use.

	< 90th %	90th - 95th %	> 95th %
	No Concern	Concern	High Concern
Infant Regulation	< 8	8 - 9	10 - 25
Energy & Physiologic Stability	< 15	15 - 17	18 - 65
Gastrointestinal Tract Function	< 40	40 - 49	50 - 135
Sensory Responsiveness	< 15	15 - 18	19 - 35
Feeding Flexibility	< 10	10 - 12	13 - 35
Total Score	< 75	75 - 87	88 - 295



NeoEAT - Mixed Feeding

Reference Values for Infants 6 - 7 months old

The following reference values are for infants between 6 months 1 day and 7 months 0 days old. If the child was born prior to 37 weeks post-menstrual age, please use the child's corrected age when determining which reference values to use.

	< 90th %	90th - 95th %	> 95th %
	No Concern	Concern	High Concern
Infant Regulation	< 9	9 - 11	12 - 25
Energy & Physiologic Stability	< 13	13 - 16	17 - 65
Gastrointestinal Tract Function	< 41	41 - 45	46 - 135
Sensory Responsiveness	< 19	19 - 22	23 - 35
Feeding Flexibility	< 11	11 - 12	13 - 35
Total Score	< 79	79 - 85	86 - 295