

Algorithm

for assessing growth of the child during first year of life considering a child's age and measurements (length, weight and body mass index) together using standard deviation (z-score) charts and the "Interpreting growth indicators" table according to the "Clinical protocol of medical care for a healthy child under 3 years of age", approved by the order of the Ministry of Health of Ukraine dated 20.03.2008. No. 149

№	Actions	Options of assessment of growth indicators			
1	Greet the mother and explain what you are going to do				
2	- Plot the dot on the point of intersection of length line (horizontal line) and age line (vertical line) on the appropriate z-score chart. - Connect adjacent points with a straight line on the chart (build a curve to identify trends in a child's growth)				
3	Identify and say on which z-score line (or "track" between the lines) the dot representing length-for-age is located.	0 - +2σ	Above +2σ	Above +3σ	
		0 - -2σ	Below -2σ	Below -3σ	
4	Describe child's length-for-age in terms of z-scores.	Very tall			
		Normal			
		Stunted			
		Severely stunted			
5	- Plot the dot on the point of intersection of weight line (horizontal line) and age line (vertical line) on the appropriate z-score chart. - Connect adjacent points with a straight line on the chart (build a curve to identify trends in a child's growth)				
6	Identify and say on which z-score line (or "track" between the lines) the dot representing weight-for-age is located.				
6		0 - +2σ	Above +2σ	Above +3σ	
		0 - -2σ	Below -2σ	Below -3σ	
7	Describe child's weight-for-age in terms of z-scores.	Assess weight-for-length/height or BMI-for-age for final conclusion			
		Normal			
		Underweight			
		Severely underweight			
8	Use the calculator to determine child's body mass index (BMI) and announce the result	BMI is calculated as follows: BMI (kg / m²) = Body Weight (kg): Height (m): Height (m)			
9	- Plot the dot on the point of intersection of BMI line (horizontal line) and age line (vertical line) on the appropriate z-score chart. -Connect adjacent points with a straight line on the chart (build a curve to identify trends in a child's growth)				
10	Identify and say on which z-score line (or "track" between the lines) the dot representing BMI-for-age is located.				
10		0 - +1σ	Above +1σ	Above +2σ	Above +3σ
		0 - -1σ	Below -1σ	Below-2σ	Below-3σ
11	Describe child's BMI-for-age in terms of z-scores.	The risk of overweight	Overweight		Obese
		Normal			
		Wasted		Severely	
12	Identify trends in a child's growth for each indicator on recorded z-score charts and tell the result.	Normal (parallel to the median and z-score lines)	Sharp incline in growth line	Sharp decline in growth line	The child's growth line remains flat (stagnant)
13	Thank the mother				

Interepretation of standard deviations of physical development

Z-score	Growth indicators			
	Length/height- for- age	Weight-for- age	Weight-for-length/height	BMI-for-age
Above 3	Very tall	Assess weight-for-length/height or BMI-for-age for final conclusion	Obese	Obese
Above 2	Normal		Overweight	Overweight
Above 1	Normal		Possible risk of overweight	Possible risk of overweight
0 (median)	Normal	Normal	Normal	Normal
Below -1	Normal	Normal	Normal	Normal
Below -2	Stunted	Underweight	Wasted	Wasted
Below -3	Severely stunted	Severely underweight	Severely wasted	Severely wasted

Correct breastfeeding assessment algorithm: positioning of mother and baby and attachment of baby to the breast

№	Actions	Possible variants of answers	
		Signs that breastfeeding is going well	Signs of possible breastfeeding difficulty
1.	<ul style="list-style-type: none">- Greet the mother- Ask if she doesn't mind you watching her breastfeeding the baby- Explain why it is necessary	<ul style="list-style-type: none">- Good afternoon!- Don't you mind me watching you feeding your baby?- I'll observe how you do it to find out if you need my help	
Assessment of mother's and baby's body position			
2.	<ul style="list-style-type: none">- Ask: Are you sitting / lying comfortable?- Assess mother's body position on photo- Say if this body position is correct or NOT	<ul style="list-style-type: none">- Yes, I'm comfortable- Mother relaxed and comfortable [sitting or lying]- This body position is correct	<ul style="list-style-type: none">- No, I'm not comfortable In a sitting position: <ul style="list-style-type: none">- Mother's shoulders are tense OR <ul style="list-style-type: none">- She leans over baby In a lying position: <ul style="list-style-type: none">- Mother strains her neck OR- She supports her head with the hand (it is not comfortable)- This body position is NOT correct
3.	<ul style="list-style-type: none">- Assess if baby's body is close towards mother's body- Say if this body position is correct or NOT	<ul style="list-style-type: none">- Baby's body CLOSE to mother's- This body position is correct	<ul style="list-style-type: none">- Baby's body AWAY from mother's- This body position is NOT correct
4.	<ul style="list-style-type: none">- Assess if baby's head facing mother's breast- Say if this body position is correct or NOT	<ul style="list-style-type: none">- Baby's head facing mother's breast- This body position is correct	<ul style="list-style-type: none">- Baby's head NOT facing mother's breast- This body position is NOT correct
5.	<ul style="list-style-type: none">- Assess if baby's head and entire body are aligned and facing mom's breast- Say if this body position is correct or NOT	<ul style="list-style-type: none">- Baby's head and entire body are aligned and facing mom's breast- This body position is correct	<ul style="list-style-type: none">- Baby's head and entire body are NOT aligned and facing mom's breast: baby's neck is twisted- This body position is NOT correct
6.	<ul style="list-style-type: none">- Assess if mother supporting baby's head, torso and buttocks with her hand (Refers only to newborns and first months of life children)- Say if this body position is correct or NOT	<ul style="list-style-type: none">- Mother is supporting baby's head, torso and buttocks with her hand- This body position is correct	<ul style="list-style-type: none">- Mother is NOT supporting baby's head, torso and buttocks with her hand- This body position is NOT correct
7.	<ul style="list-style-type: none">- Thank the mother- Make a conclusion about the need in changes in mother's / baby's body position during breastfeeding	For example: <ul style="list-style-type: none">- Thank you!- Everything is fine, the breastfeeding is comfortable for both – the mother and the baby OR- Not everything is correct in the mother's / baby's body position AND	

	<ul style="list-style-type: none">- Ask if she has any questions	<ul style="list-style-type: none">- Seems the suckling would be more comfortable for the baby if the mother turns his body towards her and supports with her hand not only the baby's head, but also his body and buttocks- Do you have any questions?	
Assessment of baby's attachment to the breast			
8.	<ul style="list-style-type: none">- Explain that now you will observe how the mother attaches her baby to the breast- Explain why it is necessary	<ul style="list-style-type: none">- Now I'm going to observe how you are attaching the baby to the breast- Please, show me how you do it, and I'll see if you need my help	
9.	<ul style="list-style-type: none">- Assess if baby's mouth wide open- Say if such attachment is correct or NOT	<ul style="list-style-type: none">- Baby's mouth is wide open- Attachment to the breast is correct	<ul style="list-style-type: none">- Baby's mouth is NOT wide open, lips are extended forward- Attachment to the breast is NOT correct
10.	<ul style="list-style-type: none">- Assess if baby's lower lip turned outwards- Say if such attachment is correct or NOT	<ul style="list-style-type: none">- Baby's lower lip is turned outwards- Attachment to the breast is correct	<ul style="list-style-type: none">- Baby's lower lip is NOT turned outwards- Attachment to the breast is NOT correct
11.	<ul style="list-style-type: none">- Assess if baby's cheeks are round	<ul style="list-style-type: none">- Baby's cheeks are round- Attachment to the breast is correct	<ul style="list-style-type: none">- Cheeks are tense and drawn in- Attachment to the breast is NOT correct
12.	<ul style="list-style-type: none">- Assess where the areola of the nipple is more visible (top part of the areola or underneath part)	<ul style="list-style-type: none">- Top part of the areola is more visible- Attachment to the breast is correct	<ul style="list-style-type: none">- Underneath part of the areola is more visible- Attachment to the breast is NOT correct
13.	<ul style="list-style-type: none">- Assess if baby's chin is touching mother's breast	<ul style="list-style-type: none">- Baby's chin is touching breast- Attachment to the breast is correct	<ul style="list-style-type: none">- Baby's chin is NOT touching breast- Attachment to the breast is NOT correct
14.	<ul style="list-style-type: none">- Thank the mother- Make a conclusion about the correctness of attachment to the breast- Say what mother needs to change- Ask if she has any questions	<i>For example:</i> <ul style="list-style-type: none">- Thank you!- I see that the baby is attached to the breast correctly OR- Not everything is correct in the baby's attachment to the breast- Seems the suckling would be more comfortable (easier) for the baby if the mother once again tries to attach the baby to the breast so that he opens his mouth wider and captures more underneath part of the areola- Do you have any questions?	