Similac Science: Understanding Infant Nutrition and Formula Composition

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Slide Number | Voice-Over Script | On-Screen Text | Video Description | Image/Infographic Suggestion |
| 1 | Hello, and welcome to the module on Breastfeeding and Infant Nutrition.  *Click Start to begin the module.* | Breastfeeding and Infant Nutrition  *Click Start to begin* | Soft animation, logo of Abbott Nutrition, calming background music. | Abbott Nutrition logo with a mother and child silhouette. |
| 2 | Before we begin, let us watch a scenario. | **Scenario** Before we begin, let us watch a scenario. | *Fade in the scene with a warm color palette.* | A cozy living room setting in a middle-class Indian home. |
| 3 | Dr. Sharma: "Namaste, Mrs. Verma. How are you and baby Rohan doing today?"   Mrs. Verma: "Namaste, Doctor. Rohan has been a bit fussy lately. I'm worried I'm not producing enough milk." | Dr. Sharma: "How are you and baby Rohan doing today?"   Mrs. Verma: "Rohan has been a bit fussy lately." | Dr. Sharma, a kind female pediatrician, sits across from Mrs. Verma, a worried new mother, holding her baby. (Transition: Zoom in slightly on Mrs. Verma's concerned expression.) | Illustration of a doctor in a clinic talking to a mother and her baby. |
| 4 | Mrs. Verma: "My mother-in-law says I should start giving him formula, but I want to breastfeed him exclusively for the first six months." Dr. Sharma: "It's wonderful that you're committed to breastfeeding, Mrs. Verma. It's the best for Rohan." | Mrs. Verma: "I should start giving him formula."  Dr. Sharma: "It's wonderful that you're committed to breastfeeding." | Mrs. Verma looks conflicted, glancing at her baby. Dr. Sharma offers a reassuring smile. (Transition: Camera focuses on the baby for a moment, then back to the doctor.) | An image depicting the dilemma of breastfeeding versus formula feeding, with a question mark in the middle. |
| 5 | Dr. Sharma: "Breast milk provides all the essential nutrients he needs, and it also boosts his immunity. We can discuss ways to increase your milk supply and ensure Rohan is getting enough." Mrs. Verma: "That sounds great, Doctor. I really want to make breastfeeding work." | Dr. Sharma: "Breast milk provides all the essential nutrients he needs." Mrs. Verma: "I really want to make breastfeeding work." | Dr. Sharma leans forward, offering encouragement. Mrs. Verma looks relieved and hopeful. (Transition: Smooth transition to a close-up of Dr. Sharma.) | Illustration of breast milk being superior to formula, showing its nutritional advantages. |
| 6 | As seen from the above scenario... |  | Fade out the scene, transitioning back to the course interface. | A graphic emphasizing the importance of proper guidance on infant feeding. |
| 7 | Let us quickly look at the objectives of this module. By the end of this module, you will be able to: • Recall the benefits of breastfeeding for infants and mothers • Explain why breast milk is the optimal source of nutrition for the first six months • Compare the composition of human milk with cow's milk and infant formula • Demonstrate knowledge of the key components in breast milk that support immune development • Evaluate the role of nucleotides in infant health and development • Explain the importance of a PO-free fat blend in infant formula | **Learning Objectives** By the end of this module, you will be able to: • Recall the benefits of breastfeeding for infants and mothers • Explain why breast milk is the optimal source of nutrition for the first six months • Compare the composition of human milk with cow's milk and infant formula • Demonstrate knowledge of the key components in breast milk that support immune development • Evaluate the role of nucleotides in infant health and development • Explain the importance of a PO-free fat blend in infant formula | Animate each objective visually as it's mentioned. | Bullet points animating onto the screen as each objective is read. |
| 8 | Next, let's talk about how breastfeeding provides the best nutrition and protection from illnesses for infants. For the first 6 months, breast milk is all that the infant needs. Breastmilk is the best and most economical food for baby. | Breastfeeding provides the best nutrition and protection from illnesses of infants. For infants, breast milk is all that is needed for the first 6 months. Breastmilk is the best and most economical food for baby. | A gentle animation of a mother breastfeeding her baby. | Image of a happy mother breastfeeding her baby, highlighting the bond. |
| 9 | We will discuss important warnings and cautions. Infant milk substitute is not the sole source of nourishment of an infant. Careful and hygienic preparation of infant milk substitute is most essential for health. | IMPORTANT NOTICE: MOTHER’S MILK IS BEST FOR THE BABY Warning / Caution: Infant milk substitute is not the sole source of nourishment of an infant. Careful and hygienic preparation of infant milk substitute is most essential for health. | Use caution tape animation to display the warning. | A red warning sign emphasizing the importance of breast milk. |
| 10 | Next, Lactose-free infant milk substitute should only be used in case of diarrhea due to Lactose intolerance. Lactose- free infant formula should be withdrawn, if there is no improvement in symptoms of intolerance. | Lactose- free infant milk substitute should only be used in case of diarrhea due to Lactose intolerance. Lactose- free infant formula should be withdrawn, if there is no improvement in symptoms of intolerance. | Animated text highlighting the key phrases. | An infographic explaining lactose intolerance and the use of lactose-free formula. |
| 11 | Now that, Continued use of infant milk substitute should not be recommended to avoid any difficulties in reverting to breastfeeding of infants after a period of feeding by infant milk substitute. | Continued use of infant milk substitute should not be recommended to avoid any difficulties in reverting to breastfeeding of infants after a period of feeding by infant milk substitute. | A visual representation of the potential difficulties in reverting to breastfeeding. | A graph illustrating the decline in breastfeeding rates with the introduction of formula. |
| 12 | We will discuss unnecessary introduction of partial bottle-feeding or other foods and drinks will have negative effect on breastfeeding. | Unnecessary introduction of partial bottle-feeding or other foods and drinks will have negative effect on breastfeeding. | Illustrate the concept with before and after animation. | Image contrasting a baby happily breastfeeding with a baby being bottle-fed with other foods. |
| 13 | Before we proceed further, let us have a quick check of your understanding. Read the question carefully. Click Submit to verify your answer.  Feedback: Well done! That’s correct. Breast milk provides optimal nutrition and immunity. Oops, That’s incorrect. The correct answer is breast milk. Breast milk provides optimal nutrition and immunity. | **Check Your Understanding** Which of the following is the BEST source of nutrition for infants in the first 6 months? a) Cow's milk b) Formula c) Breast milk d) Solid foods  Select the correct option and click Submit. | Allow the learners to choose a single option and activate the Submit button. | Standard quiz interface. |
| 14 | Let's discuss the unique characteristics of breastmilk. Immediately after delivery, breastmilk is yellowish and sticky. The milk is called Colostrum, which is secreted during the first-week of delivery. | Characteristics of breastmilk : Immediately after delivery, breastmilk is yellowish and sticky. The milk is called Colostrum, which is secreted during the first-week of delivery. | An image transition from a pregnant woman to a mother holding her newborn, highlighting the colostrum. | Image of colostrum, emphasizing its yellowish color and thick consistency. |
| 15 | Additionally, Colostrum is more nutritious than mature milk because it contains more proteins, more anti-infective properties, which are of great importance for the infant’s defense against dangerous neo-natal infections. It also contains higher levels of Vitamin ‘A’. | Colostrum is more nutritious than mature milk because it contains more proteins, more anti-infective properties, which are of great importance for the infant’s defense against dangerous neo-natal infections. It also contains higher levels of Vitamin ‘A’. | Highlight the protein and Vitamin A contents and their benefits with infographics. | Infographic comparing the nutritional content of colostrum and mature breast milk. |
| 16 | Let's delve into the advantages of breastfeeding. Breastfeeding is much cheaper than feeding an infant milk substitute as the cost of extra food needed by the mother is negligible as compared to cost of feeding infant milk substitute. | Advantages of breastfeeding : (A) Breastfeeding is much cheaper than feeding an infant milk substitute as the cost of extra food needed by the mother is negligible as compared to cost of feeding infant milk substitute | Use icons and animation to represent cost saving. | Image comparing the cost of breastfeeding vs. formula feeding. |
| 17 | We will discuss Breastmilk is always available; Breastmilk needs no utensils or water (which might carry germs) or fuel for is preparation; Mothers who breastfeed usually have longer periods of infertility after child birth than non-lactators. | Breastmilk is always available; Breastmilk needs no utensils or water (which might carry germs) or fuel for is preparation; Mothers who breastfeed usually have longer periods of infertility after child birth than non-lactators. | A montage of images showing the convenience and natural benefits of breastfeeding. | Images showcasing the convenience and natural benefits of breastfeeding. |
| 18 | Before we proceed further, let us have a quick check of your understanding. Read the question carefully. Click Submit to verify your answer.  Feedback: Well done! That’s correct. Colostrum is rich in antibodies. Oops, That’s incorrect. The correct answer is colostrum. Colostrum is rich in antibodies. | **Check Your Understanding** Which of the following is rich in anti-infective properties and secreted during the first week of delivery? a) Mature milk b) Formula c) Colostrum d) Cow’s milk  Select the correct option and click Submit. | Allow the learners to choose a single option and activate the Submit button. | Standard quiz interface. |
| 19 | Next, let's explore the management of breastfeeding. Breastfeeding Immediately after delivery enables the contraction of the womb and helps the mother to regain her figure quickly. | i. Breastfeeding A. Immediately after delivery enables the contraction of the womb and helps the mother to regain her figure quickly. | Illustrate the process of womb contraction with animation. | A graphic illustrating how breastfeeding helps in uterine contraction. |
| 20 | We will cover Breastfeeding Is successful when the infant suckles frequently and the mother wanting to breastfeed is confident in her ability to do so. | B. Is successful when the infant suckles frequently and the mother wanting to breastfeed is confident in her ability to do so. | A video clip of a mother successfully breastfeeding her baby. | Image of a confident mother breastfeeding her baby. |
| 21 | Now that, we know In order to promote and support breastfeeding the mother's natural desire to breastfeed should always be encouraged by giving, where needed, practical advice and making sure that she has the support of her relatives. | ii. In order to promote and support breastfeeding the mother's natural desire to breastfeed should always be encouraged by giving, where needed, practical advice and making sure that she has the support of her relatives. | A graphic emphasizing the role of support in successful breastfeeding. | Image showing family support for a breastfeeding mother. |
| 22 | Additionally, Adequate care for the breast and nipples should be taken during pregnancy. It is also necessary to put the infant to the breast as soon as possible after delivery. | iii. Adequate care for the breast and nipples should be taken during pregnancy. iv. It is also necessary to put the infant to the breast as soon as possible after delivery. | An animation showing the correct way of taking care of the breast and nipples during pregnancy. | Images or short videos demonstrating proper breast and nipple care. |
| 23 | Next, Let the mother and the infant stay together after the delivery, the mother and her infant should be allowed to stay together (in hospital, this is called "rooming- in"). | v. Let the mother and the infant stay together after the delivery, the mother and her infant should be allowed to stay together (in hospital, this is called "rooming- in"). | An image displaying mother and baby together after delivery. | Image of a mother and newborn baby in a "rooming-in" setting. |
| 24 | Let's discuss Give the infant Colostrum as it is rich in many nutrients and its anti-infective factors protect the infants from infections during the few days of its birth. | vi. Give the infant Colostrum as it is rich in many nutrients and its anti-infective factors protect the infants from infections during the few days of its birth. | An animation stressing the nutritional benefits of colostrum. | Close-up image of colostrum, emphasizing its importance. |
| 25 | Before we proceed further, let us have a quick check of your understanding. Read the question carefully. Click Submit to verify your answer.  Feedback: Well done! That’s correct. Encourage putting the infant to the breast as soon as possible. Oops, That’s incorrect. The correct answer is Encourage putting the infant to the breast as soon as possible. | **Check Your Understanding** Which of the following practice should be encouraged? a) Discarding Colostrum b) Giving sugar water c) Putting infant to the breast as soon as possible d) Giving honey water  Select the correct option and click Submit. | Allow the learners to choose a single option and activate the Submit button. | Standard quiz interface. |
| 26 | Next, let's cover Breastfeeding is the BEST. Universal and exclusive breastfeeding for the first 6 months of every infant’s life remain the recommendation and stated goal for infant feeding by numerous national (Indian Academy of Pediatrics, IAP) and international organizations including; World Health Organization (WHO), United Nations International Children’s Emergency Fund (UNICEF), and the American Academy of Pediatrics (AAP). | Breastfeeding is the BEST Universal and exclusive breastfeeding for the first 6 months of every infant’s life remain the recommendation and stated goal for infant feeding by numerous national (Indian Academy of Pediatrics, IAP) and international organizations including; World Health Organization (WHO), United Nations International Children’s Emergency Fund (UNICEF), and the American Academy of Pediatrics (AAP). | Display logos of the mentioned organizations. | Logos of WHO, UNICEF, and IAP, symbolizing the global recommendation for breastfeeding. |
| 27 | Now that, Breastfeeding provides optimal nutrition to infants; however, some mothers cannot or choose not to breastfeed and some infants and children require an alternative for infant feeding. | Breastfeeding provides optimal nutrition to infants; however, some mothers cannot or choose not to breastfeed and some infants and children require an alternative for infant feeding. | A image illustrating both the breastfeeding option and alternative feeding options. | A balanced image showing both breastfeeding and formula feeding, acknowledging different circumstances. |
| 28 | We will explore Human Breast Milk: Provides all the essential nutrients necessary for the growth and development of the newborn infant. | Human Breast Milk: Provides all the essential nutrients necessary for the growth and development of the newborn infant. | An image showcasing the essential nutrients present in human breast milk. | Infographic listing essential nutrients in breast milk and their benefits. |
| 29 | Before we proceed further, let us have a quick check of your understanding. Read the question carefully. Click Submit to verify your answer.  Feedback: Well done! That’s correct. Provides all the essential nutrients for the growth of the newborn infant. Oops, That’s incorrect. The correct answer is Provides all the essential nutrients for the growth of the newborn infant. | **Check Your Understanding** Human Breast Milk: a) Has no nutrients b) Provides all the essential nutrients for the growth of the newborn infant. c) Causes Diarrhea d) Not safe  Select the correct option and click Submit. | Allow the learners to choose a single option and activate the Submit button. | Standard quiz interface. |
| 30 | Next, Human Milk vs. Cow Milk: Let's compare the protein composition of mature human milk and cow milk. Click each tab to learn more. | Protein Composition of Mature Human Milk vs. Cow Milk Click each tab to learn more. • Total proteins • Caseins • Whey proteins • α-Lactalbumin • β-Lactoglobulin • Lactoferrin • Serum albumin • Lysozyme • Immunoglobulin | *<Create an interactive infographic with clickable tabs for each bullet point. Each tab shows a separate slide on click. Only one tab is active at a time. Guide the learner through each item.*> | Interactive infographic comparing human and cow milk. |
| 31 | Now that we are on Total proteins, in g/dl, Human milk contains 0.89 while Cow milk contains 3.30. | Total Proteins Human milk: 0.89 g/dL Cow milk: 3.30 g/dL | Animation showing the difference in protein levels between human and cow milk. | Bar graph comparing total protein content. |
| 32 | We will cover Caseins, in g/dl, Human milk contains 0.25 while Cow milk contains 2.60. | Caseins Human milk: 0.25 g/dL Cow milk: 2.60 g/dL | Animation showing the difference in Caseins levels between human and cow milk. | Bar graph comparing casein content. |
| 33 | Let's explore Whey proteins, in g/dl, Human milk contains 0.70 while Cow milk contains 0.67. | Whey Proteins Human milk: 0.70 g/dL Cow milk: 0.67 g/dL | Animation showing the difference in Whey protein levels between human and cow milk. | Bar graph comparing whey protein content. |
| 34 | Before we proceed further, let us have a quick check of your understanding. Read the question carefully. Click Submit to verify your answer.  Feedback: Well done! That’s correct. Cow milk has more total protein. Oops, That’s incorrect. The correct answer is Cow milk. Cow milk has more total protein. | **Check Your Understanding** Which milk type has more total protein? a) Human milk b) Cow milk c) Both are same d) None  Select the correct option and click Submit. | Allow the learners to choose a single option and activate the Submit button. | Standard quiz interface. |
| 35 | In this module, you have learned about:  In this module, you have learned about: • Benefits of breastfeeding for infants and mothers • Breast milk as the optimal nutrition source for the first six months • Comparison of human milk with cow's milk and infant formula • Key components in breast milk that support immune development • Role of nucleotides in infant health and development • Importance of a PO-free fat blend in infant formula | **Summary** In this module, you have learned about: • Benefits of breastfeeding for infants and mothers • Breast milk as the optimal nutrition source for the first six months • Comparison of human milk with cow's milk and infant formula • Key components in breast milk that support immune development • Role of nucleotides in infant health and development • Importance of a PO-free fat blend in infant formula | *<Sync OST with the audio.*> | A slide listing all the key takeaways from the module, using concise language. |
| 36 | Now that you have understood the concept of the Breastfeeding and Infant Nutrition, let us have an assessment. Before you begin, read the instructions carefully. Click Start once you are ready! | **Instructions** 1. There are 15 questions in total. 2. Each correct answer will earn you 10 points. 3. There is no penalty for incorrect answers. 4. To pass, you need to achieve a score of at least 90%. 5. Once you complete the assessment, your score will be revealed. 6. If your score falls below 90%, you will have three opportunities to retake the assessment.  Click Start to begin. | Allow the learners to select Start button. | A clear set of instructions for the final assessment. |
| 37 | Thank you for your time. We hope this module was helpful and informative. | **Thank You** | Positive, happy learner or instructor. | Image of a smiling healthcare professional or mother and baby. |