

## BreastEd Online Lactation Studies Program

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The BreastEd series is comprised of 10 unique courses, each dealing with a specific area or period of relevance to the breastfeeding mother and her infant. Together these courses provide a comprehensive study program in lactation and breastfeeding.

The BreastEd Series has been approved by the Lactation Education Accreditation and Approval Review Committee (LEAARC), which recognises comprehensiveness and quality in lactation programs and is the minimum standard recommended for all programs of study for future Lactation Consultants.

The BreastEd series meets and exceeds the lactation-specific education prerequisite for those students preparing for the IBLCE Examination to become a Lactation Consultant.

### Aim:

The aim of this program is to provide students with a comprehensive direction of study that will prepare them for the International Board of Lactation Consultant Examiners' certification examination, while giving them the knowledge and confidence to become competent professionals in the field of lactation.

By developing and delivering this program online, a secondary aim is to provide a high quality study program accessible to students who by preference or necessity find the unlimited 12-month access to course content, tutoring and peer support best suits their needs.

### Features:

Well-constructed online learning gives you the best of both worlds - quality content that you can work through at your own pace, in your own place, but with a level of personal attention that even rivals face-to-face programs. And, you guessed it, Health e-Learning programs are the BEST of online learning with all these great features:

- Log in to work on your studies anytime it suits you 24/7/365
- Study at your own pace within your enrolment period
- No formal deadlines, stressful exams or assignments
- All reading provided or linked
- Periodic testing of knowledge with fun self-test activities
- Course facilitation by highly experienced IBCLC tutor
- Gain valuable support and network with students from all over the world
- Immediate feedback for final online assessment
- Certificate of Completion issued immediately
- Administrative and technical support available online

### Assessment:

Achievement of the learning objectives is assessed by automatically graded, online, multiple-choice questions. A passing grade is 85%.

A Workbook, downloaded from the course, is not required to be submitted, yet completion of the workbook will aid in your learning and is an excellent resource when reviewing your courses.

When you successfully complete each course you can download your Certificate of Completion immediately. Your Certificate notes ongoing education accreditation points.

### Accreditation:

On successful completion of each of the BreastEd courses you will be awarded:

- 12 L Continued Education Recognition Points – CERPs (IBLCE)
- 12 Contact Hours - CH
- 12 Continued Education – CE (Canadian Nurses - Accredited CE's)

For IBLCE purposes, each course provides 12 hours of pre-exam education.

### **Administration:**

Each BreastEd course is facilitated by an experienced International Board Certified Lactation Consultant.

Each course is available as a one month subscription commencing on the day of notification to you of your username and password.

The subscription time is cumulative – resulting in having access to all 10 courses for 10 months should you enrol into them individually. However, should you enrol in the entire program in one transaction you will remain enrolled for 12 months.

The subscription time may be extended by purchasing extensions, which **MUST** be purchased **BEFORE** the subscription expiry date.

The average time taken to complete each course and assessment is 12 hours.

On successful completion your Certificate will be available to you in .pdf format from the course website.

Replacement certificates can be obtained for a fee, however we maintain an official transcript that is available free for all customers to download at any time.

### **Fees and Payments:**

Enrollments are accepted online, or upon special request by phone.

Payments online are available using either PayPal or credit card payments via our website.

The cost is **US\$135.00** per individual BreastEd course. (Subject to change without notice)

Additional fees, which are out of our control, may be charged by your bank to convert this to your local currency.

Please see our Payments FAQ for more information.

### **Refunds and Privacy:**

Please see our Terms and Conditions for more information regarding refunds and our Privacy Policy is also available.

## **BE01: Breastmilk: Composition and Function**

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### **Aim:**

The aim of this course is to give you a good understanding of the biochemical and immunological composition of breastmilk and a strong appreciation of its value to babies, children, and their mothers.

## Objectives:

On successful completion of this course you will be able to:

- List the macronutrients and many micronutrients in breastmilk, describing their function and value to the child.
- Describe what influences nutrient concentration in breastmilk.
- Describe the immunological functions of the major proteins, carbohydrates and fats in breastmilk.
- List 5 acute conditions and 5 chronic diseases directly attributable to being artificially-fed.
- Discuss 5 interventions, of which one is related to feeding choice, that will delay or lessen the severity of allergic disease in children.
- Discuss developmental delays attributable to artificial feeding.
- List the maternal health implications of suppressing lactation on maternal anaemia, contraception, weight control, diabetes, breast cancer, endometrial cancer and ovarian cancer.
- Debate the ethical responsibilities of informed consent that influence choice of infant feeding.

## Syllabus :

### 1. Introduction

### 2. Optimal Nutrition

- Protein
- Carbohydrates
- Milk Lipids
- Vitamins
- Minerals
- Stages of Lactation

### 3. Immunology

- Immune System Development
- Defences in Breastmilk

### 4. Health Outcomes

- Acute conditions
- Chronic Disease Conditions
- Allergic responses
- Developmental characteristics
- Maternal implications

### 5. Feeding Alternatives

## BE02: Anatomy and Physiology of the Lactating Breast

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### Aim:

The aim is for you to acquire a high level of understanding of breast anatomy and lactation physiology, so that you can base your breastfeeding management advice on sound principles.

## Objectives:

On successful completion of this course the student will be able to:

- List the stages and hormones involved in the development of the female breast from the embryological stage, through puberty to the childbearing years and beyond.
- Label the components of a lactocyte and describe their function, including the 5 pathways described for milk synthesis.
- Describe the ductal and glandular systems in terms of distribution, arrangement and number of milk ducts.
- Discuss the significance of the areola and nipple to breastfeeding.
- Articulate the series of events that occur when the milk ejection reflex is elicited.
- List the arterial supply to, and lymphatic drainage from the breast.
- Tutor colleagues and/or mothers on how breast capacity impacts breastfeeding frequency.
- Recognize anomalies of breast anatomy that may impact on breastfeeding.
- Describe secretory differentiation in terms of onset and hormonal control.
- Describe secretory activation in terms of onset and completion, hormonal control and the changes in breastmilk components.
- List the two processes that control maintenance of lactation.
- Describe the anatomical and/or physiological basis of lactation failure.

## Syllabus:

### 1. Breast Anatomy

- Mammogenesis
- Functional anatomy
- Supportive anatomy
- Breast anomalies

### 2. Lactation Physiology

- Secretory differentiation (Lactogenesis I)
- Secretory activation (Lactogenesis II)
- Lactogenesis III
- Involution
- Lactation insufficiency

## BE03: Positioning and Latch of the Baby to the Breast

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### Aim:

The aim of this course is for you to learn the principals of good positioning that facilitate effective latch and milk transfer avoiding preventable breastfeeding problems.

### Objectives:

On successful completion of this course you will be able to:

- Describe the features of the lactating breast that facilitate and enhance milk transfer.
- List the cranial bones, cranial nerves and facial muscles of the infant relevant to breastfeeding.
- Describe the neurobehavior of the newborn infant that leads to breastfeeding.
- State the most important clinical practice that should be implemented immediately following birth.
- Describe the maternal position that best facilitates breastfeeding.
- Define the principles of infant positioning that facilitates breastfeeding.
- List the sequence of actions that lead to correct latch.
- Describe the placement of the breast teat in relation to the infant's tongue and oral cavity.
- List the individual roles of the mother and the baby in milk transfer.
- Describe the neurohormonal sequence of the milk ejection reflex.
- Describe the sequence of events in the suck cycle.
- List 10 infant causes of poor latch and 10 causes of un-coordinated suck and how to recognize them.
- Describe maternal reasons causing poor milk transfer in terms of maternal anatomy and milk ejection.
- Describe 3 observational stages employed during a breastfeeding consultation.
- Demonstrate to a mentor how to teach a mother to position and latch her baby correctly herself.
- Recognise when and why problems of latching and suck are occurring and describe the process.

## Syllabus:

1. Introduction
2. Relevant anatomy for breastfeeding
  - Breast Anatomy
  - Infant Cranial Anatomy
3. Sharing the Skills
  - The Breastfeeding Environment
  - Good Positioning
  - Good Latch
4. Milk Transfer
  - Milk Ejection Reflex
  - Physics of Sucking
  - Factors affecting milk transfer: Baby
  - Factors affecting milk transfer: Mother
5. Breastfeeding Consultation
  - Observation and Assessment
  - Breastfeeding Assessment Tools
  - Breastfeeding Consultation
6. Problems of Latch and Suck

## **BE04: Breastfeeding Initiation and the First Week**

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### **Aim:**

The purpose of this course is for you to be confident in your ability to inform and influence the mother regarding breastfeeding, facilitate the birthing and postnatal environment to support breastfeeding and to problem-solve common difficulties encountered in the first week postpartum.

### **Objectives:**

On successful completion of this course the student will be able to:

Plan the most effective strategies to support mothers to choose to breastfeed.

- List and address 3 common barriers to breastfeeding.
- Plan evidence-based prenatal breastfeeding education covering the topics as outlined in Step 3 of the Ten Steps to Successful Breastfeeding.
- Identify those factors that occur in the birthing room that interfere with and support successful initiation of breastfeeding.
- Describe the immediate post-birth environment that will facilitate initiation of breastfeeding as outlined in step 4 of the Ten Steps to Successful Breastfeeding.
- List 10 effects on the mother, the baby or their breastfeeding experience as a result of separating mother and baby.
- Demonstrate how to guide the mother to use optimal positioning techniques for her infant to be able to correctly latch to the breast.
- Develop a check-list of educational messages that are essential to cover with a new mother prior to her leaving health care supervision.
- List the causes, prevention and management of 5 common difficulties encountered by breastfeeding mothers in the first week postpartum.

## Syllabus:

1. The Infant Feeding Decision
  - Addressing the barriers
  - Prenatal education
  - Important messages
2. The Intrapartum Period
  - Interventions
  - Mode of birthing
3. Birth to First Breastfeed
  - The first breastfeed
  - Birthing room practices
4. The First Week
  - Infant safety for discharge
  - Support and self-confidence
5. Problem-solving
  - The non-latching newborn
  - Hypoglycaemia
  - Engorgement
  - Nipple damage or pain
  - Hyperbilirubinemia

## BE05: Communication and Education

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### Aim:

The purpose of this course is to guide you in the acquisition of effective communication skills so that your interactions with clients, health care providers and the community will be professional, educational and demonstrate empathic understanding.

### Objectives:

On successful completion of this course the student will be able to:

- Communicate effectively using counseling techniques, articulated by listing the qualities of an effective counselor, demonstrating attending behaviour, giving examples of following behaviour including open and closed questioning, choosing examples of different types of listening skills, listing judgmental words to be avoided, listing 3 ways to build self-confidence and demonstrating these skills in a role play with a mentor.
- Discuss the issues faced when a new baby enters the family, describing how they can be most effective in their support at this time.
- List four important steps in each of the preparation, the introduction and the conclusion when speech making.
- Develop and deliver educational materials demonstrating examples for auditory, kinaesthetic and visual learners; write an aim and learning objectives; list at least 5 points against which to check written materials.

## Syllabus:

1. Introduction
2. Communication skills
  - Attending skills
  - Listening skills
  - Building confidence
  - Resolution
  - Applying the theory
3. Transition to parenthood
  - Pregnancy Issues
  - Parenthood
  - Implications for practice
4. Public Speaking
  - Preparation
  - Practice
  - Presentation
5. Principles of Adult Learning
  - Planning educational content
  - Breastfeeding class or workshop
  - Written materials

## BE06: Breastmilk, Breastfeeding & the Preterm Baby

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### Aim:

To deepen your understanding about the specificity of breastmilk in meeting the nutritional, immunological, developmental and psychological needs of the preterm baby by providing you with recent, evidence-based information to assist the mother to provide her breastmilk to, and eventually breastfeed, her preterm baby.

### Objectives:

On successful completion of this course you will be able to:

- Describe the nutritional needs of the preterm infant, and compare these needs to the biochemistry of the breastmilk of a mother birthing her baby preterm.

- Describe the immunological properties of the colostrum and mature milk of a mother birthing preterm and compare the outcomes of formula-fed and breastmilk-fed infants in terms of infectious diseases.
- Compare the gastrointestinal and neurobiological outcomes of formula-fed and breastmilk-fed babies and explain the reasons for the differences.
- Describe how the psychological needs of the preterm baby can be adequately met.
- Describe how mothers have reported feeling in traditional neonatal intensive care units, then describe how a positive culture can be implemented.
- Compare kangaroo mother care with traditional incubator care on infant morbidity, cardio-respiratory stability, thermoregulation, breastfeeding exclusivity and duration, and length of hospital stay, and detail the steps necessary to implement kangaroo mother care in a neonatal intensive care unit.
- Describe the process necessary for lactation initiation that will facilitate lactation success.
- Describe how to maintain an adequate lactation in terms of hand expressing, pumping frequency and duration, pharmacological and non-pharmacological galactagogues and storage of breastmilk.
- List the points to evaluate oral motor competence and list measures to decrease oral aversion.
- Discuss 3 methods reported in the literature on how to transition to full oral feedings.
- Describe how to cup feed a baby and how cup feeding and bottle feeding compare in terms of cardiorespiratory stability and nutritional intake.
- Describe the management of the lactational aspect of care for the mother whose baby has died.

## Syllabus:

1. Introduction
2. The Preterm Infant
  - Nutritional needs
  - Immunological needs
  - Developmental needs
  - Psychological needs
3. Mothering the Preterm Infant
  - Supporting the maternal role
  - Kangaroo mother care
  - Initiation of lactation
  - Maintenance of lactation
  - From tube to breast
4. When a baby dies

## BE07: Breastfeeding After the First Week

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### Aim:

This course aims to assist you to recognize and facilitate the normal progress of breastfeeding from the first postnatal week until beyond weaning, and to prevent problems related to breastfeeding, recognize them when they do occur and manage them effectively.

### Objectives:

On successful completion of this course the student will be able to:

- Identify growth and development milestones and breastfeeding behavior expected at various ages and how to use growth assessment tools.
- List the developmental milestones to be achieved before complementary feeding is commenced and suitable complementary foods at various ages.



- Refer mothers to articles discussing the normal age for weaning; and outline maternal and infant strategies to wean an infant prematurely.
- List possible causes of low milk supply and develop a plan of care to stimulate and manage it.
- List signs, symptoms and management of breastmilk jaundice.
- List causes and breastfeeding management of common infant gastro-intestinal conditions.
- Identify the issues to discuss with a mother who is returning to the workforce.
- List causes and management of nipple pain and damage.
- Identify their professional responsibilities relating to a client consultation.

## Syllabus:

1. Introduction
  - Introduction
  - Professionalism, record keeping
  - Letters of summary, referral and reply
2. The First Year or Two
  - Normal progress
  - Infant growth
  - Normal behaviour
  - Breastfeeding
  - Weaning
3. Infant Issues
  - Breast refusal:
  - Suck confusion
  - Breastmilk jaundice
  - Crying baby
  - Intolerance, Allergy and Reflux
  - Failure to thrive; Alternative feeding methods
4. Maternal Issues
  - Nipple infections, nipple conditions
  - Breast problems
  - Breastmilk supply problems
  - Separation of mother and baby

## BE08: Breastmilk, Lactation and Medications

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### Aim:

This course has been designed to provide you with sufficient information to understand how breastmilk is affected by medications, social drugs and environmental contaminants, and the potential effect on the breastfeeding infant so that you can accurately advise the mother about safe usage.

### Objectives:

On successful completion of this course you will be able to:

- Describe how drugs are transferred into breastmilk, listing what influences the breastmilk concentration of drugs.
- Discuss the factors influencing absorption of the drug by the infant, and outline clinical strategies that reduce drug transfer to the infant.
- Identify drugs and herbal preparations that increase or decrease the production of breastmilk and outline their recommended usage.

- Advise which drugs are not compatible with breastfeeding.
- Detail the safe usage of drugs prescribed for common conditions such as postpartum infections and depression.
- Discuss the effect of environmental contaminants on breastmilk and infants.
- Counsel a breastfeeding mother on the effects of recreational and illegal drugs on her and her infant.

## Syllabus:

1. Introduction:
2. Drug transfer into breastmilk:
  - Maternal plasma levels
  - Other factors
    - Stage of lactation
    - Lipid solubility of the drug
    - Milk pH (ion trapping)
    - Molecular weight of drugs. Protein binding of drug
    - Age and maturity of infant
    - Stage of lactation
    - Oral bioavailability
3. Drug transfer to the infant
  - Prescribing for breastfeeding mothers
  - Clinical strategies to reduce drug transfer
  - Drugs contraindicated during lactation
4. Drugs that affect breastmilk production
  - Galactagogues
  - Reducing supply
5. Drugs commonly prescribed for breastfeeding women
  - Antibiotics and antifungals
  - Anti-depressants
  - Analgesics
6. Maternal use of Recreational and illicit drugs
7. Environmental contaminants in breastmilk

## BE09: Other Factors Affecting the Breastfeeding Dyad

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### Aim:

The aim of this course is to extend your knowledge of common and less common issues that could affect breastfeeding mothers and their infants. Your knowledge of how breastfeeding affects these issues, or how the issue affects breastfeeding will assist you to counsel the mother appropriately.

### Objectives:

On successful completion of this course you will be able to:

- Develop an outline for a short educational presentation to colleagues on the nutritional needs of breastfeeding mothers.
- Compare and contrast all the forms of contraception a breastfeeding mother may consider using.
- List the effects that breastfeeding has on sexuality.
- Outline how women can induce lactation or relactate.
- List the major points to be discussed with mothers who are breastfeeding during a pregnancy, or tandem feeding.
- Outline a plan of care for a mother who has previously had breast surgery.

- List the recommendations regarding breastfeeding for each of 5 maternal infectious diseases.
- List 5 considerations relevant to breastfeeding when a mother has any of the following conditions: diabetes, asthma, thyroid disorder, rheumatoid arthritis, lupus or obesity.
- Develop a parent handout describing breastfeeding management of twins or higher-order multiples.
- Develop an outline for a short educational presentation to colleagues on caring for a baby with a cleft lip and/or palate.
- Describe how to assist a baby with a neurological deficit to breastfeed.
- Describe techniques that will assist a mother to breastfeed a baby who is either hypertonic or hypotonic.

## Syllabus :

### 1. Maternal Issues

- Maternal nutrition
- Sexuality and contraception
- Relactation; Induced lactation
- Breastfeeding in pregnancy; Tandem breastfeeding
- Breast surgery
- Infectious diseases: Hepatitis B & C, HIV, Varicella, Cytomegalovirus, HTLV-1
- Medical conditions
  - Diabetes mellitus
  - Obesity
  - Asthma
  - Thyroid disease
  - Rh arthritis
  - Lupus

### 2. Infant Issues

- Cleft lip and/or palate
- Twins, triplets & higher order multiples
- Conditions affecting muscle tone

## BE10: Evolution of Breastfeeding as a Public Health Issue

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### Aim:

The aim of this course is to give you an appreciation of the passage of breastfeeding in historical and cultural context and to broaden your understanding of how infant feeding choice is influenced by attitudes of individuals and communities, and how these are in turn molded by industry and politics for financial gain at the expense of the mother and baby.

### Objectives:

On successful completion of this course the student will be able to:

- Demonstrate an understanding of the placement of breastfeeding in an historical, cultural and religious context.
- Relate a brief history of infant formula appearance, development and composition.
- Evaluate the influence of formula promotion.
- Access the WHO Code on the Marketing of Breastmilk Substitutes, and apply it to clinical situations.
- List their professional responsibilities in upholding the provisions of the WHO Code.
- Access the Innocenti Declaration and discuss the major points covered by this document.
- List the 10 Steps to Successful Breastfeeding, and explain the application of each in the clinical setting.

- Describe the Baby Friendly Hospitals Initiative and its role in changing hospital practices.
- Identify and evaluate their attitudes to breastfeeding within their own community.
- List the international breastfeeding advocacy organizations and their roles in breastfeeding protection.

## Syllabus:

### 1. Ancient history to modern history.

- Early myths and legends
- Early medical writers and laws
- Medieval Europe and the spread of medical knowledge
- Origins of pediatrics and innovations in breastmilk substitutes

### 2. Beginning to protect, promote and support breastfeeding

- 1920s - 1950s: ILO maternity protection, marketing of artificial feeding, baby food production, Milk and Murder, La Leche League
- 1960s: Mother-to-mother support grows, Commercogenic malnutrition
- 1970s: All-time low for breastfeeding, Nestle trial, Codex alimentarius, Nestle boycott, Declaration of Alma Ata, IBFAN

### 3. Protection, promotion and support in the International Agenda

- 1980 - 1984: WHO Code, Formula composition, Complementary foods
- 1985 - 1989: IBLCE and ILCA formed, end to free formula supplies, 10 Steps to Successful Breastfeeding, Convention on Rights of the Child
- 1990s: Innocenti Declaration, WABA BFHI, World Breastfeeding Week, Mother Friendly Workplace, six months exclusive breastfeeding, impact of HIV, Baby Friendly Community Initiative

### 4. Protection, promotion and support in the New Millennium

- UN Millennium Development Goals, HHS Blueprint, Healthy People 2010, Global Initiative for Mother Support, Global Strategy for Infant and Young Child Feeding, US National breastfeeding awareness campaign, WHO Growth Charts