

# The Benefits of Breastfeeding



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# Benefits of Breastfeeding: Term Infant



- **Reduced infection**
  - **UTI**
    - ✦ Exclusive breastfeeding 0-6 months 16% protective against hospital admission
  - **Otitis media**
    - ✦ 43% reduction, 0-2 years old
  - **Respiratory**
    - ✦ 57% reduction in hospital admissions
    - ✦ Protection against a third of all respiratory episodes
  - **GI**
    - ✦ Protection against 72% hospital admissions due to diarrhea
    - ✦ Protection against half of all diarrhea episodes
    - ✦ 14 Fold reduction of NEC
  - **Asthma**
    - ✦ 9% reduction, 0-2 years old

# Benefits of BF: Term Infant, cont.



- **Body Mass Index (BMI)**
  - 26% reduction in odds of overweight/obese (long-term)
- **Type II Diabetes**
  - 24% reduction
  - Possibly protective against Type I Diabetes
- **Sudden Infant Death Syndrome (SIDS)**
  - BF associated with 36% reduction
- **Higher IQ**
  - Large RCT and non-randomized trials consistent with increase of 7 points in children aged 6.5 years

# Benefits of BF: Premature Infant



- **Shorter hospital stay**
- **Necrotizing enterocolitis**
  - 14 fold reduction in incidence
- **Reduced Infection**
  - UTI
  - GI
- **Infection-related death in low birth-weight infants**
  - 45% lower risk with early initiation breastfeeding

# Benefits of BF: Mothers



- **Breast Cancer Prevention**
  - Each 12 month increase in lifetime of BF assoc. with reduction of 4.8% incidence
  - Comparing longer to shorter BF durations, 7% reduction of incidence
- **Ovarian Cancer Prevention**
  - 30% reduction assoc. with longer BF duration
- **BMI**
  - Mean BMI 1 % lower for every 6 months of breastfeeding
- **Bonding with Infant**
- **Better spacing between children**

# Potential Life-long Impact to Mother/Baby Dyad



- **Fetal origins of adult disease**
  - Microbiome
  - Life-long metabolic consequences
- **Cancer prevention**
  - 19% reduction incidence of Childhood Leukemia
  - Childhood lymphoma
- **Stem Cells**

# What Might Preclude Choice to Breastfeed



- **Medication use**
  - Short term vs. long term
  - Toxicity of drug
  - Exceedingly high dose of drug
  - Drugs that might suppress lactation
  - Drug-drug interactions
  - Drugs with cardiovascular side effects

# Drugs that preclude breastfeeding



- **Drugs:**
  - Methotrexate (long-term)
  - Ergot Alkaloids (cabergoline, methylergonovine)
  - Anticancer drugs (briefly)
    - ✦ Cisplatin
    - ✦ Doxorubicin
    - ✦ Carboplatin
    - ✦ Tamoxifen
  - Drugs of Abuse
    - ✦ Cocaine
    - ✦ Phencyclidine
    - ✦ LSD
    - ✦ Marijuana (???)
  - Isotretinoin
  - Metals: High mercury, High lead
- **Radioactive**
  - $^{131}\text{I}$  Iodine,  $^{123}\text{I}$  Iodine (includes close-contact restrictions)
  - High dose  $^{99}\text{Tc}$  Technetium (Thyroid scan, lung perfusion)
  - $^{14}\text{C}$  –triolein and –GCA breath test



# What Might Preclude Choice to Breastfeed, cont.



- **Infectious Disease**
  - HIV
  - Anthrax
  - HTLV-1
  - Zika
  - Herpes Simplex (primary or on nipple)
  - CMV (controversial)
  - Chickenpox (primary)
  - Pertussis (until treatment)
- **Returning to work**
- **Infant unable to go to breast**
- **Unable to make milk**

# Barriers to Breastfeeding



- **Knowledge of Physician**
  - Obstetrician
  - Pediatrician
  - Neonatologist
- **Access to Lactation Support**
  - Lactation consultants
  - Le Leche League
  - Support groups (Baby Cafe)
- **Misinformation**

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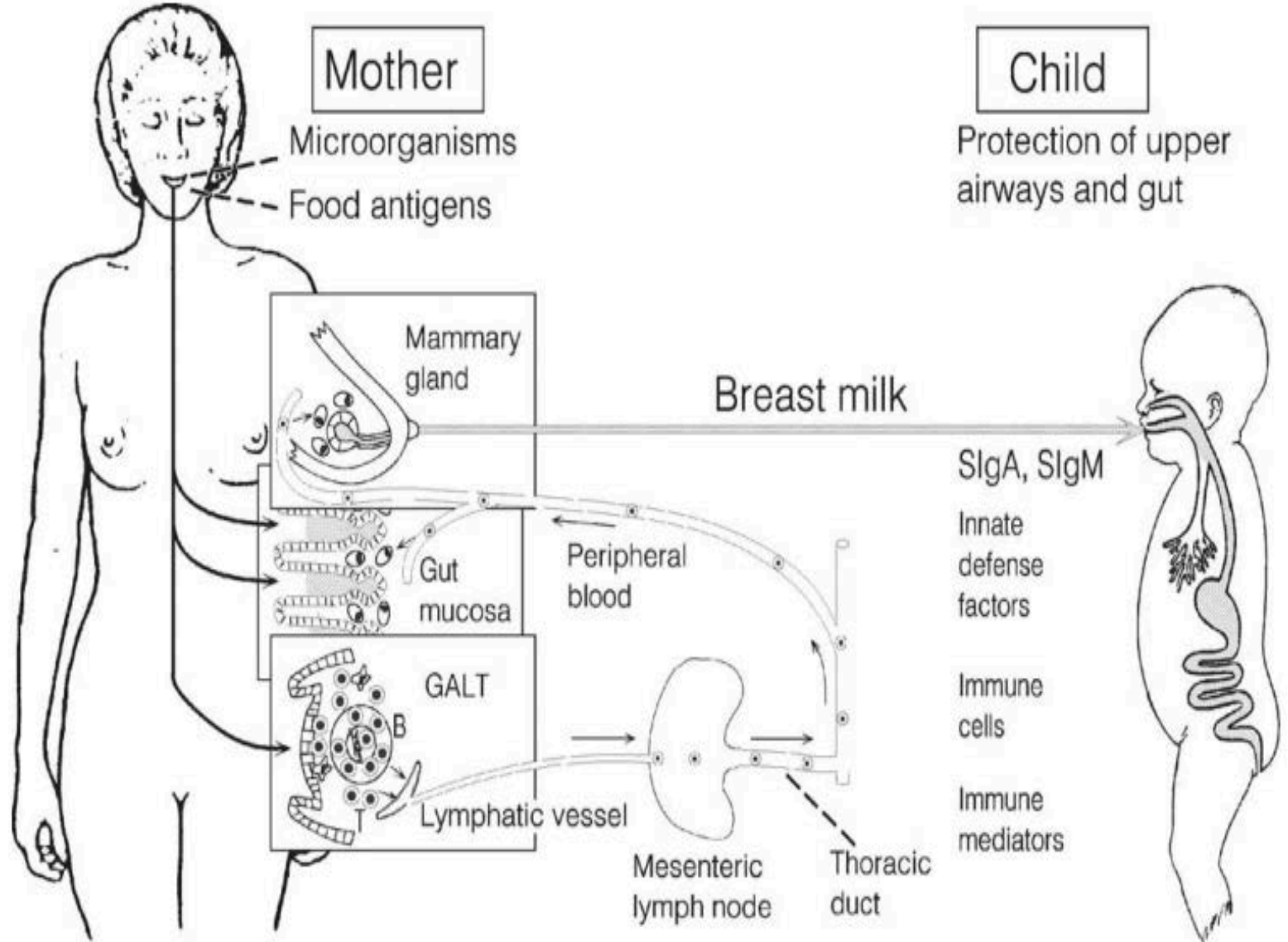


# InfantRisk Center

Texas Tech University Health Sciences Center

806-352-2519

# Mucosal Immunity in the Breastfed Infant



# Maternal Vaccinations

<b>MMR</b>	<b>Safe</b> ○
<b>Yellow Fever</b>	<b>Safer than getting disease</b>
<b>Hepatitis B</b>	<b>Safe</b>
<b>Hepatitis A</b>	<b>Safe</b>
<b>DPT</b>	<b>Safe</b>
<b>Flumist</b>	<b>Probably safe</b>
<b>Influenza</b>	<b>Safe</b>
<b>Varicella</b>	<b>Safe</b>
<b>Inactivated Polio</b>	<b>Safe</b>
<b>Gardasil (HPV)</b>	<b>Safe</b>

## Response of Prolactin to Breastfeeding as a Function of Stage of Lactation

