



DID YOU EVER WONDER WHAT'S IN... ?

BREASTMILK

WATER

CARBOHYDRATES (energy source)

Lactose
Oligosaccharides (see below)

CARBOXYLIC ACID

Alpha hydroxy acid
Lactic acid

PROTEINS

(Building muscles and bones)

Whey protein
Alpha-lactalbumin
HAFLET (Human Alpha-lactalbumin)
Made lethal to tumour cells
Lactoferrin
Many antimicrobial factors (see below)
Casein
Serum albumin

NON-PROTEIN NITROGENS

Creatine
Creatinine
Urea
Uric acid
Peptides (see below)
Amino Acids (the building blocks of protein)

Alanine
Arginine
Aspartate
Cysteine
Cytidine
Glutamate
Histidine
Isoleucine
Leucine
Lysine
Methionine
Phenylalanine
Proline
Serine
Saurine
Threonine
Tryptophan
Tyrosine
Valine

Carnitine (amino acid compound necessary to make use of fatty acids as an energy source)
Nucleotides (chemical compounds that are the structural units of RNA and DNA)

5'-Adenosine monophosphate (5'-AMP)
2',5'-Cyclic adenosine monophosphate (2',5'-cyclic AMP)
5'-Cytidine monophosphate (5'-CMP)
Cytidine diphosphate (CDP) (cholesterol)
Guanosine diphosphate (GDP)
Guanosine diphosphate - mannose
3'-Uridine monophosphate (3'-UMP)
5'-Uridine monophosphate (5'-UMP)
Uridine diphosphate (UDP)
Uridine diphosphate hexose (UDPH)
Uridine diphosphate N-acetyl hexosamine (UDPH-N)
Uridine diphosphoglyceric acid (UDPGA)
Several more novel nucleotides of the UDP type

FATS

Triglycerides
Long-chain polyunsaturated fatty acids
Docosahexaenoic acid (DHA) (important for brain development)
Arachidonic acid (AA) (important for brain development)
Linoleic acid
Alpha-linolenic acid (ALA)
Eicosapentaenoic acid (EPA)
Conjugated linoleic acid (luminic acid)
Free Fatty Acids
Monounsaturated fatty acids
Oleic acid
Palmitoleic acid
Heptadecenoic acid
Saturated fatty acids
Stearic
Palmitic acid
Lauroic acid
Myristic acid

Phospholipids

Phosphatidylcholine
Phosphatidylethanolamine
Phosphatidylinositol
Lysophosphatidylcholine
Lysophosphatidylethanolamine
Phospholipids

Sphingolipids

Sphingomyelin
Gangliosides
GM1
GM2
GM3
Glycosylceramide
Glycosphingolipids
Galactosylceramide
Lactosylceramide
Glyboosylceramide (GB3)
Glucoylceramide (GB4)

Sterols

Squalene
Lanosterol
Dimethylsterol
Methosterol
Lathosterol
Desmosterol
Stigmasterol
Cholesterol
7-dehydrocholesterol
Stigma-and campesterol
7-stigmasterol
Sisosterol
β-lathosterol
Vitamin D metabolites
Steroid hormones

VITAMINS

Vitamin A
Beta-carotene
Vitamin B6
Vitamin B8 (inositol)
Vitamin B12
Vitamin C
Vitamin D
Vitamin E
α-Tocopherol
Vitamin K
Thiamine
Riboflavin
Niacin
Folic acid
Pantothenic acid
Biotin

MINERALS

Calcium
Sodium
Potassium
Iron
Zinc
Chloride
Phosphorus
Magnesium
Copper
Manganese
Iodine
Selenium
Choline
Sulphur
Chromium
Cobalt
Fluorine
Nickel

METAL

Molybdenum (essential element in many enzymes)

GROWTH FACTORS

(aid in the maturation of the intestinal lining)

Cytokines
Interleukin-1β (IL-1β)
IL-2
IL-4
IL-6
IL-8
IL-10
Granulocyte-colony stimulating factor (G-CSF)
Macrophage-colony stimulating factor (M-CSF)
Platelet-derived growth factor (PDGF)
Vascular endothelial growth factor (VEGF)
Hepatocyte growth factor (HGF-α)
HGF-β
Tumor necrosis factor-α
Interferon-γ
Epithelial growth factor (EGF)
Transforming growth factor-α (TGF-α)
TGF-β1
TGF-β2
Insulin-like growth factor-1 (IGF-1) (also known as somatomedin C)
Insulin-like growth factor- II
Nerve growth factor (NGF)
Erythropoietin

PEPTIDES

(combinations of amino acids)

HMGF 1 (Human growth factor)
HMGF II
HMGF III
Cholecystokinin (CCK)
β-endorphins
Parathyroid hormone (PTH)
Parathyroid hormone-related peptide (PTHrP)
β-defensin-1
Calcitonin
Gastrin
Motilin
Bombesin (gastric releasing peptide, also known as neuropeptide B)
Neurotensin
Somatostatin

HORMONES

(chemical messengers that carry signals from one cell, or group of cells, to another via the blood)

Cortisol
Triiodothyronine (T3)
Thyroxine (T4)
Thyroid stimulating hormone (TSH) (also known as thyrotropin)
Thyroid releasing hormone (TRH)
Prolactin
Oxytocin
Insulin
Cortisol
Thrombopoietin
Gonadotropin releasing hormone (GnRH)
GRH
Leptin (aids in regulation of food intake)
Ghrelin (aids in regulation of food intake)
Adiponectin
Feedback inhibitor of lactation (FIL)
Eicosanoids
Prostaglandins (enzymatically derived from fatty acids)
PG-E1
PG-E2
PG-F2
Leukotrienes
Thromboxanes
Prostacyclin

ENZYMES

(catalysts that support chemical reactions in the body)

Amylase
Arylsulfatase
Catalase
Histaminase
Lipase
Lysozyme
PHE-acetylhydrolase
Phosphatase
Xanthine oxidase

ANTIPROTEASES

(thought to bind themselves to macromolecules such as enzymes and as a result prevent allergic and anaphylactic reactions)

α-1-antitrypsin
α-1-antichymotrypsin

ANTIMICROBIAL FACTORS

(are used by the immune system to identify and neutralize foreign objects, such as bacteria and viruses.)

Leukocytes (white blood cells)
Phagocytes
Basophils
Neutrophils
Eosinophils
Macrophages
Lymphocytes
B lymphocytes (also known as B cells)
T lymphocytes (also known as T cells)
sIgA (Secretory immunoglobulin A) (the most important anti-infective factor)
IgA2
IgG
IgD
IgM
IgE
Complement C1
Complement C2
Complement C3
Complement C4
Complement C5
Complement C6
Complement C7
Complement C8
Complement C9
Glycoproteins
Microbicides (attach to bacteria and viruses to prevent them from clinging to mucosal tissues)
Lactoferrin

Alpha-lactoglobulin
Alpha-2-macroglobulin
Lewis antigens
Ribonuclease
Haemagglutinin inhibitors
Bifidus Factor (increases growth of Lactobacillus bifidus - which is a good bacterial)
Lactoferrin (binds to iron which prevents harmful bacteria from using the iron to grow)
Lactoperoxidase
B2 binding protein (deprives microorganisms of vitamin B2)
Fibronectin (makes phagocytes more aggressive, minimizes inflammation, and repairs damage caused by inflammation)
Oligosaccharides (more than 200 different kinds)

FORMULA

WATER

Lactose
Corn maltodextrin

PROTEIN

Partially hydrolyzed reduced-minerals whey protein concentrate (from cow's milk)

FATS

Palm olein
Soybean oil
Coconut oil
High oleic safflower oil (or sunflower oil)
M. alpha oil (Fungal DHA)
Cocoh oil (Algal AHA)

MINERALS

Potassium citrate
Potassium phosphate
Calcium chloride
Tricalcium phosphate
Sodium citrate
Magnesium chloride
Ferrous sulphate
Zinc sulphate
Sodium chloride
Copper sulphate
Potassium iodide
Manganese sulphate
Sodium selenate

VITAMINS

Sodium ascorbate
Inositol
Choline bitartrate
Alpha-tocopheryl acetate
Nicotinamide
Calcium pantothenate
Riboflavin
Vitamin A acetate
Pyridoxine hydrochloride
Thiamine mononitrate
Folic acid
Phylloquinone
Biotin
Vitamin D3
Vitamin B12

ENZYME

Trypsin

AMINO ACID

Taurine
L-Carnitine (a combination of two different amino acids)

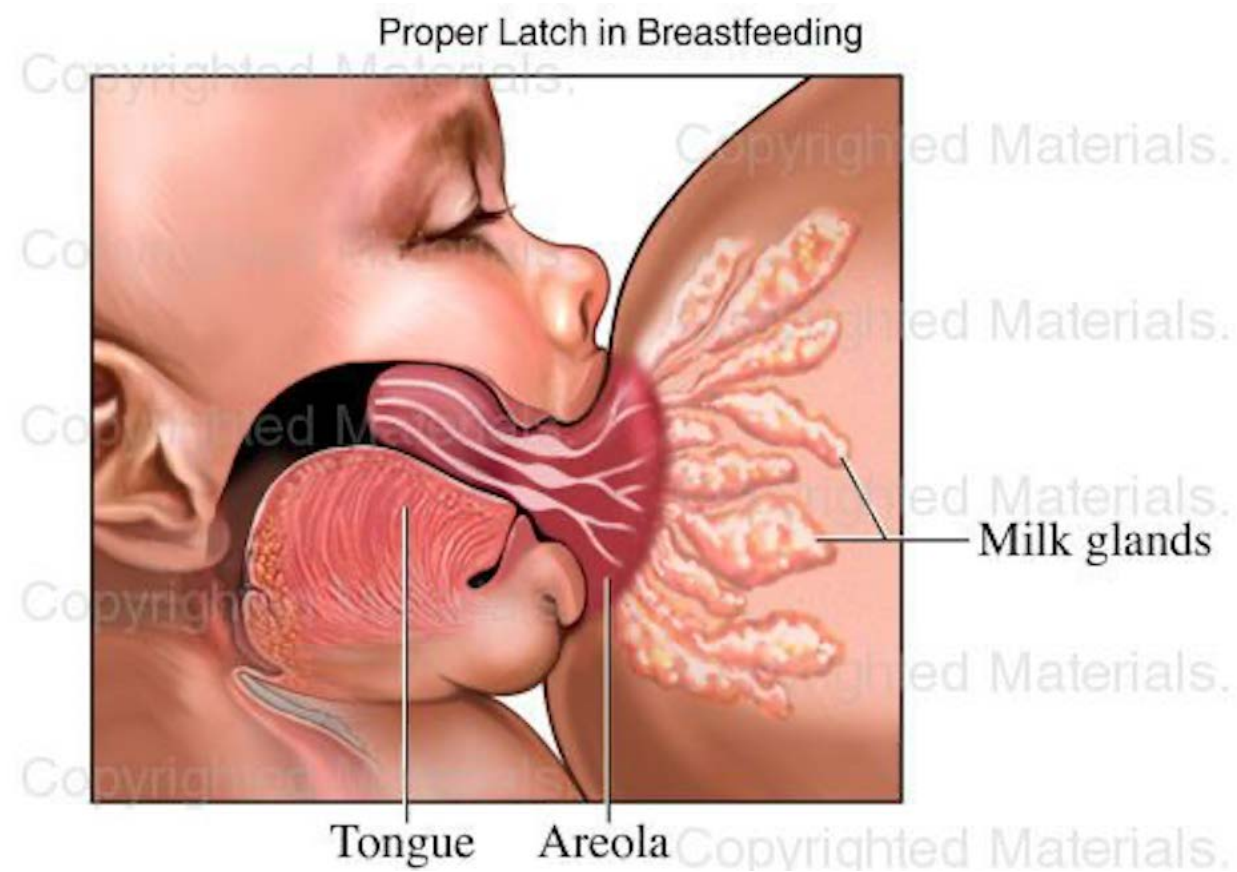
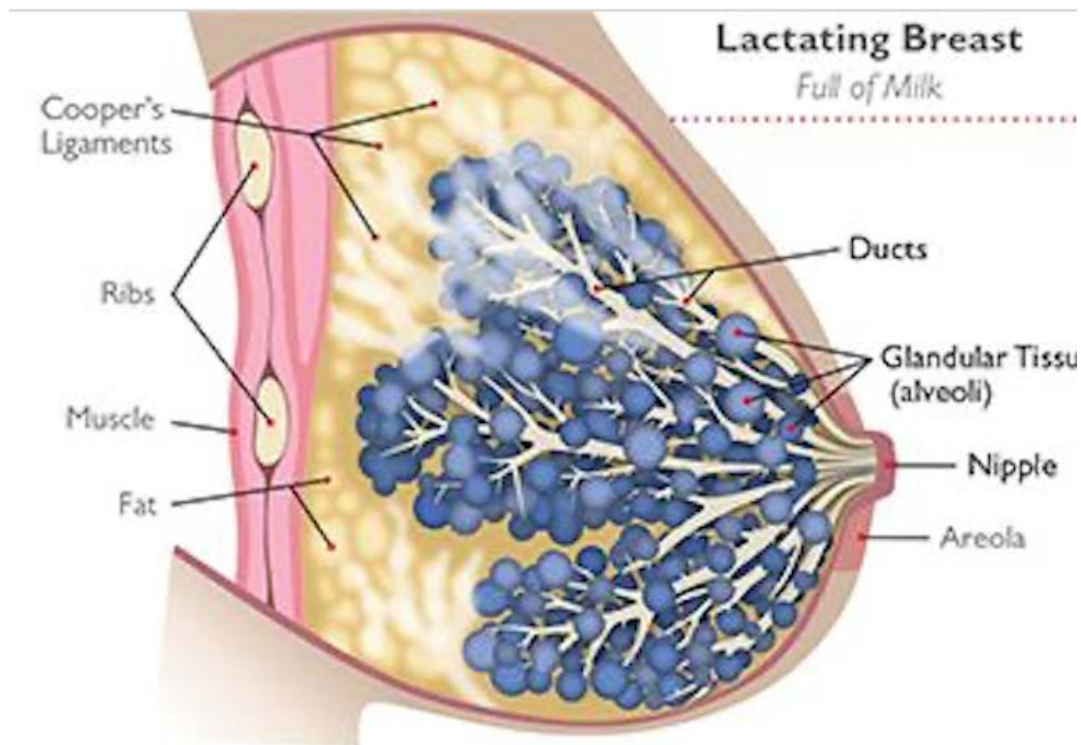
NUCLEOTIDES

Cytidine 5-monophosphate
Disodium uridine 5-monophosphate
Adenosine 5-monophosphate
Disodium guanosine 5-monophosphate
Soy Lecithin



Benefits of Breastmilk for Mom & Baby

Mom	Baby
Faster healing from birth	Protect the gut
Helps lower post-partum depression	Connects with the mother
Bonding with her baby	Gives antibodies for immunity
Protective factor against breast cancer	Reduces risk chronic disease



Size and volume of a Newborn's Stomach



Day one

Size of a Cherry

5-7 ml/ 1/2 Tsp

Day Three

Size of a Walnut

22-27 ml/ .75-1oz

One Week

Size of an Apricot

45-60 ml/ 1.5-2 oz

One Month

Size of a large egg

80-150 ml/ 2.5-5 oz

www.babiesfirstlactation.com

Precautions and Recommendations for SARS-CoV-2 (COVID-19)

- Wearing a mask helps to protect others in your community
- Use social distance precautions when in close proximity (6 feet)
- Stay home if you have symptoms or are sick and cover cough
- Wash hands frequently for at least 1 minute with soap or use hand sanitizer before breastfeeding, caring for your baby and throughout day
- Clean and disinfect your home, car, work stations on a regular basis
- Stay updated on all recommended immunizations, prenatal/postpartum doctor appointments and newborn follow ups
- Get tested if recommended by provider
- Use a covering while nursing if infant is cooperative or wear your mask
- Clean all pumping parts/ bottles before and after each session

Breastfeeding Resources

'Breastfeeding During COVID-19'

by Roberta Eaglehorse-Ortiz

Resource List for Providers, Peer Support & Family members

[American Academy of Pediatrics: Breastfeeding](#)

[CDC: Coronavirus Disease \(COVID-19\) and Breastfeeding](#)

[CDC: Pregnancy, Breastfeeding and Caring for Newborns](#)

[World Health Organization: Breastfeeding Education for Increased BF Duration](#)

Breastfeeding and Postpartum Support Resources

[Global Health Media \(Breastfeeding Support Videos\)](#)

[Indigenous Breastfeeding - Parents as Teachers](#)

[Kookum Josephine King Shares a Lullaby to Soothe Baby](#)

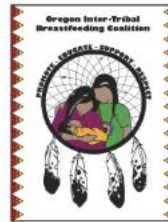
[Nursing Mothers Counsel of Oregon - \[Free\] Peer Counseling Support](#)

[Oregon Women Infant & Children Nutrition Program](#)

[Postpartum Healing Lodge](#)

[U.S. Department of Health & Human Services](#)

[Zaagi'idiwin Traditional Prenatal Classes](#)



The Oregon Inter-Tribal Breastfeeding Coalition (OITBC) is gathering information to assess the infant feeding experiences and needs of the Native community in Oregon, in order to better serve Native families.

This is an anonymous survey. Portland State University students are assisting in offering this survey to the community. If you have any questions please contact us at 503-734-4346 or OITBC.info@gmail.com.

Thank you for participating in this survey!

Please answer the questions in this survey to the best of your ability.
Some questions may not apply to your experience

Gender: Female Male

Two-Spirit

Self Identify: _____

Age (current): Under 18 18-24 25-29 30 -39

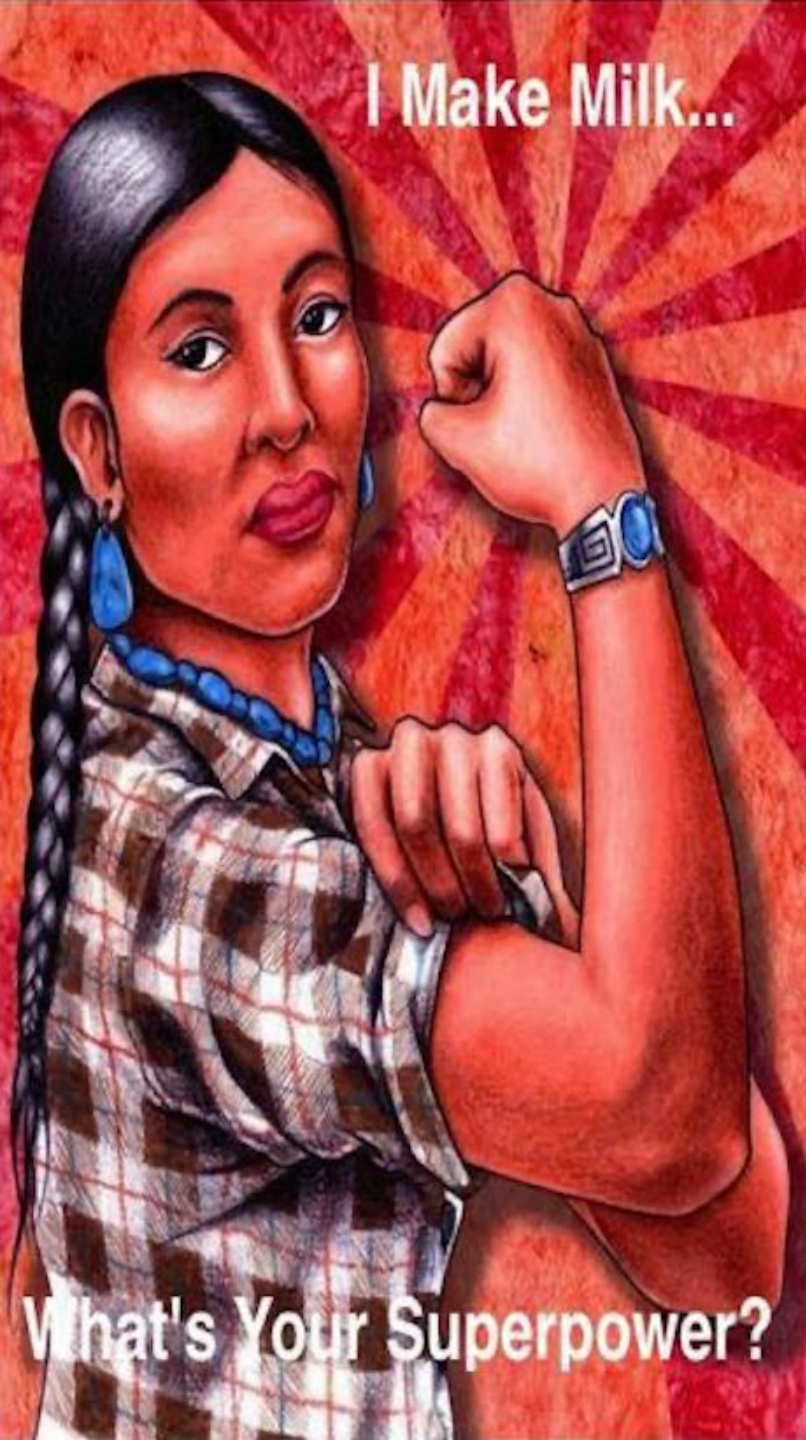
40-54 55+

Location where you are taking this survey:

Powwow WIC location Community Event Health Clinic Other location: _____



I Make Milk...



Roberta Eaglehorse-Ortiz
(Oglala Lakota/Yomba Shoshone)
Founding farmer, LE, THW/CHW & Traditional birthworker

Wombyn's Wellness Garden
Formerly Oregon Inter-Tribal Breastfeeding Coalition (OITBC)
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Portland Oregon 97211

WombynsWellnessGarden@gmail.com
www.WombynsWellnessGarden.com

What's Your Superpower?

