

## World Health Day, April 7, 2014: Vector-Borne Diseases

The 2014 World Health Day (WHD) theme is “vector-borne diseases.” From the World Health Organization (WHO):

Vector-borne diseases are infectious diseases spread by intermediate organisms, such as insects and snails that transmit viruses, parasites, and bacteria to humans. These diseases cause a high burden of illness and death for individuals, their families, and communities, especially in poorer countries; they lead to school absenteeism, worsening of poverty, a negative impact on the economic productivity, high health costs and overloaded health systems in countries.

### Breastfeeding and Vector-Borne Disease?

The simple act of breastfeeding continues to be shown to be protective against many diseases. But could it play a role in fighting these diseases? “Fighting” a disease has two components: prevention and treatment. Prevention has two components as well: establishing a state of health and wellness before disease strikes, and avoiding the disease and its impact.

### Could Breastfeeding Prevent Vector-Borne Disease?

These diseases are caused by coming in contact with an organism that carries the virus, parasite, or bacteria. By decreasing the potential for contact with these organisms, the risk is lowered. (See box for WHO prevention recommendations.)

It is unlikely that a mosquito is going to not bite a baby merely because he or she is breastfed. However, being breastfed or worn in a sling or other baby carrier can provide somewhat of a physical barrier between the organism and the baby. These babies may simply be less likely to come in contact with the intermediate disease-carrying organism.

Perhaps a more important role in preventing the harmful effects of these diseases has more to do with breastfeeding’s role in the overall health of a baby and the health of his or her mother. In general, diseases have the least negative impact on those who are strong and healthy to begin with.

It is well known that breastfeeding boosts an infant’s immune system. The many protective factors in human milk



work to recognize and target disease-causing organisms, and help create a stronger internal environment for the infant. While breastfeeding can’t guarantee an infant will not get sick, it is often seen that an illness in the breastfed infant is less severe than it might be for a baby who is not breastfeeding.

### Can Vector-borne Diseases be Transmitted through Breastmilk?

Another important consideration is whether the mother who contracts one of these diseases can safely continue to breastfeed. While this is a question for her to discuss with her doctor, breastfeeding is considered compatible with many of the more common vector-borne illnesses. (See chart on page two.)

### Protect Yourself and Your Environment

Vector-borne diseases can be prevented by:

- Wearing clothing that acts as a barrier to exposure to bites
- Using mechanisms to keep vectors out of houses (screens on doors, windows, and eaves)
- Reducing breeding sites near houses or in communities (covering water storage containers, elimination of puddles and drainage of places where water accumulates, elimination of unusable containers where water pools, and refuse control in yards and gardens)

World Health Organization, 2014<sup>1</sup>

**Treatment for Vector-Borne Diseases**

Treatment for these diseases varies with the specific illness. For some, there are effective antibacterial or parasitic treatments. And for other vector-borne diseases, there exists no effective treatment, making the prevention of these diseases in the first place all the more important. Ruth Lawrence and Robert Lawrence, in *Breastfeeding: A Guide for the Medical Profession*, provides the following information about some of the more common vector-borne illnesses.<sup>2</sup> **As with any disease and prospective treatment, it is important to discuss with the health care provider the risks and benefits of any treatment, as well as the compatibility of the treatment with continued breastfeeding.**

Disease	Breastfeeding Acceptable?	Compatibility of Medications with Breastfeeding
Chagas Disease (American Trypanosomiasis)	Yes	Nifurtimox, benznidazole
Dengue	Yes	(None listed)
Human African Trypanosomiasis ("Sleeping Sickness")	No	Suramin, pentamidine, eflornithine, melarsoprol
Lyme Disease	Yes, with informed discussion	Ceftriaxone, ampicillin, TMP-SMZ
Malaria	Yes	Pyrimethamine-sulfadoxine, chloroquine, quinidine, quinine, tetracycline, mefloquine
Rocky Mountain Spotted Fever	Yes	Doxycycline, tetracycline, chloramphenicol
Yellow Fever	Yes	Avoid yellow fever vaccine virus immunization during lactation if possible

**Supportive Therapy**

As with any disease—and especially when no medication is available—patients can find relief through supportive therapy. Such is the case for the breastfeeding mother and her baby.

If the mother is sick (assuming continued breastfeeding is okay), continuing to breastfeed her baby means less effort on her part. She can breastfeed in bed, rather than get up to prepare bottles and formula.

In addition, breastfeeding and the natural bond that occurs can help calm both mother and baby, regardless of which of them is ill. By remaining calmer, neither of them is wasting the extra energy that stressful situations consume, therefore ensuring the body can devote more energy to fight the illness.

Health care providers, breastfeeding supporters, and community volunteers can help by encouraging continued breastfeeding where possible. They can also help the mother if breastfeeding must be discontinued, temporarily or permanently, by gradually reducing her supply through hand expression or pumping.



**Breastfeeding cannot eliminate vector-borne illnesses any more than it can eliminate any other kind of illness. It can, however, help create a healthier family less likely to feel the impact of these diseases.**

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**References:**

1. <http://www.paho.org/world-health-day-2014/>
2. Lawrence RA, Lawrence RM. *Breastfeeding: A Guide for the Medical Profession, 7th Edition*. Elsevier Inc. 2011.

**For More Information:**

**La Leche League International (LLL)** is a non-profit organization founded in 1956 by seven women who wanted to help other mothers breastfeed their babies. LLLI, the world's largest resource for breastfeeding and related information, offers encouragement worldwide through mother-to-mother support and breastfeeding mother support groups in 70 countries. ♦ Address: 957 N. Plum Grove Road, Schaumburg, Illinois 60173 USA ♦ Tel: 1+847-519-7730 ♦ Fax: 1+847-969-0460 ♦ Website: [www.llli.org](http://www.llli.org) ♦



The **World Alliance for Breastfeeding Action (WABA)** is a global network of individuals and organisations concerned with the protection, promotion, and support of breastfeeding worldwide based on the Innocenti Declarations, the Ten Links for Nurturing the Future, and the WHO/UNICEF Global Strategy for Infant and Young Child Feeding. Its core partners are International Baby Food Action Network (IBFAN), La Leche League International (LLL), International Lactation Consultant Association (ILCA), Wellstart International, and Academy of Breastfeeding Medicine (ABM). WABA is in consultative status with the United Nations Children's Fund (UNICEF) and an NGO in Special Consultative Status with the Economic and Social Council of the United Nations (ECOSOC). ♦ Address: P.O. Box 1200, 10850, Penang, Malaysia ♦ Tel: 604-6584816 ♦ Fax: 604-6572655 ♦ Email: [waba@waba.org.my](mailto:waba@waba.org.my) ♦ Website: [www.waba.org.my](http://www.waba.org.my) ♦