



Vaccination during breastfeeding

Neither inactivated nor live virus vaccines administered to a breastfeeding mother or infant who is breast-feeding have adverse consequences.

Inactivated and Subunit vaccines:

It is highly unlikely that any vaccine antigens from subunit or inactivated vaccines could be secreted in breast milk for a number of reasons. Using basic principals the following may be assumed.

1. When injected, cells of the immune system take up vaccine antigens. These cells move through the lymphatic system to the nearest lymph node. Enzymes break the antigen into very small pieces. These are presented on the outside of the cell to B-cells and T cells in the lymph node. An immune response follows. It therefore seems unlikely that antigen would enter into breast milk
2. If antigen did find its way into breast milk it would not be expected to cause any harm. Firstly the gut forms a formidable barrier to ingested microbes or parts of microbes, secondly it would simply be broken down by the baby's digestive system into amino acids as with other proteins.
3. There is no evidence to suggest that inactivated or subunit vaccine antigens are excreted in breast milk.

Live viral vaccines:

There is limited evidence that some live viral vaccine components can be excreted into breast milk. Rubella virus can be however chicken pox is not. There is clear evidence to show there is no risk to the baby should this occur.

Bonus protection for baby:

There is evidence to show that protective antibodies generated by the mother are secreted in breast milk and this is of benefit to the infant. Immunising breast-feeding mothers with some vaccines may result in added protection for the infant via passive immunisation. These antibodies do not affect the infants own response to vaccination.

References:

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2. Hanson, L. A., M. Korotkova, et al. (2003). "The transfer of immunity from mother to child." Annals of the New York Academy of Sciences. **987**: 199-206.
3. Shahid, N. S., M. C. Steinhoff, et al. (2002). "Placental and breast transfer of antibodies after maternal immunization with polysaccharide meningococcal vaccine: a randomized, controlled evaluation." Vaccine. **20**(17-18): 2404-9.