

## Pre-conception, pregnant women and breastfeeding

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The safety of YF vaccination at the time of conception, during pregnancy and when breastfeeding, has not been systematically evaluated. Each situation should be evaluated on a case by case basis, a comprehensive risk assessment should be performed, and women should be encouraged to make as informed a decision as possible regarding YF vaccination in these circumstances.

Pregnancy during travel carries important risks that should be considered carefully prior to booking the trip. Please access [pregnancy factsheet](#) at TravelHealthPro for further information.

Women who are travelling to YF risk areas and who are planning a pregnancy should, ideally, wait until 28 days after YF vaccination before conceiving [1]. This time allows for any post-vaccine viraemia (vaccine virus in the mother's blood), which may in theory be a risk to a developing fetus, to settle.

It should be noted also that malaria and Zika virus transmission often co-exist in YF risk areas. Women who are pregnant should consider postponing their trip to areas where malaria is known to occur [2] and are recommended to postpone non-essential travel to areas where current ongoing transmission of Zika virus is occurring [3].

The safety of YF vaccine in pregnancy has not been systematically evaluated; a prospective study in Brazil, where women were inadvertently vaccinated in early pregnancy (mean gestational age of 6 weeks) during a YF outbreak, found no increase in fetal malformations,



complications to the central nervous system, premature delivery or perinatal deaths [4].

A recent report from the World Health Organization concluded that *'for live vaccines, while there is a theoretical risk to the fetus, no significant adverse outcomes following vaccination have been reported'* [5]. Current UK guidelines advise that YF vaccination should be avoided, on theoretical grounds, particularly in the first trimester of pregnancy. However, if the risk of YF during travel is considered sufficiently high, pregnant women may be vaccinated [6].

Inadvertent administration of a vaccine (live or inactivated) during pregnancy does not constitute grounds to terminate the pregnancy [6]. Infants should be monitored after birth for adverse events and evidence of YF infection.

In order to expand the safety data available on vaccines for pregnant women, health professionals are advised to report details of vaccine use during pregnancy to the [UK Teratology Information Service](#) (a group commissioned by Public Health England), as well as to the vaccine manufacturers. These groups collect pregnancy outcome information from women who have been exposed to drugs and vaccines in pregnancy.

There is conflicting information on whether the immune response to the YF vaccine during pregnancy is impaired [1]. Until further information is available on this, revaccination following pregnancy is considered for those at continued risk [6]. The timing of the vaccine must also take in to consideration the YF vaccine and breastfeeding information.

## **Breastfeeding women**

Generally, most mothers will wish to, and should be encouraged to continue breastfeeding during travel. Breastfeeding has benefits for both mother and infant; in particular infants who are exclusively breastfed are unlikely to be exposed to other food or drink, which may be contaminated [7].

However, one case of vaccine associated neurologic disease (YEL-AND) in an infant, aged 23 days old [8] and two probable cases (infants five weeks and 10 days old) have been reported in breastfeeding infants since 2009 [9, 10]. All the infants developed YF encephalitis shortly after their mothers received YF vaccine for the first time and during their babies' first month of life. Although all babies were breastfed, the mode of transmission has not been established [10].



Breastfeeding has historically been, and remains, a precaution for YF vaccination and should be avoided where possible. However, if the risk of YF during travel is considered sufficiently high, YF vaccination for the woman who is breastfeeding can be considered.

If a breastfeeding infant is too young to receive YF vaccine and travel cannot be avoided, the parents should be reminded that insect bite precautions should be scrupulous (e.g. the use of insect repellent appropriate to the infant's age, room screening and mosquito nets). Insect bite precautions should be adhered to day and night.

## Resources

- [Pregnancy factsheet, TravelHealthPro](#)
- [Zika virus update for travellers, TravelHealthPro](#)

## REFERENCES

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