

# Immunization in Travelling Medicine

Travelers may be exposed to several infectious diseases that are not usually encountered at home. The risk of exposure varies upon the visiting country and the person's health status.

The recommendations before traveling to tropical countries include:

- compulsory and recommended vaccinations;
- anti-malarial chemoprophylaxis (since there is no effective vaccination against malaria);
- mosquito nets, repellents and insecticides;
- prophylaxis of travel diarrhea;
- travel pharmacy;
- other medical and health risks prophylaxis.

Places for vaccinations include:

- centers of travel medicine;
- departments of hygiene and epidemiology;
- departments of infectious diseases;
- general practitioners (GPs).

## Compulsory Vaccinations

### 1. Cholera

Immunization against cholera is used in areas where cholera is common including Africa, the Indian sub-continent and Asia. New oral vaccines are now present, which can be live-attenuated or inactivated, for people over 2 years old. The older parenteral vaccines are no longer recommended as they proved ineffective and with severe side effects. Only limited protection is achieved by these vaccines and they are therefore not considered a value in epidemic situations. Thus, this immunization is no longer a legal requirement according to WHO. Adequate rehydration is of most importance.

### 2. Meningococcal Meningitis

The vaccine consists of a tetravalent polysaccharide (A, C, Y, and W135). Especially required for those intending to travel to Saharan Africa, Nepal, and northern India. All travelers to Saudi Arabia for the Hajj or Umrah pilgrimages must be vaccinated as well. This vaccine is effective for 3 years.

### 3. Yellow Fever

Only in parts of Africa and South America. Avoiding mosquitoes is the most important measure. Immunization is from a live-attenuated strain 17D on chick embryo (contains egg proteins). This vaccine is contraindicated in pregnancy, immunosuppression, children under 9 months, and in people with allergies to egg proteins. It becomes effective 10 days after application, and the certificate is valid for 10 years (protection lasts longer).

## Recommended Vaccinations

### 1. Typhoid Fever

A killed whole vaccine and a live attenuated vaccine are available, giving 70–80% protection. These should be given every three years in people who are repeatedly exposed. They are used in Africa, the Indian sub-continent, Asia and South America.

### 2. Hepatitis A

In Africa, the Far East, and Central and South America. Human normal immunoglobins. Offers high level of protection and should be offered to those entering high risk areas, chronic liver disease, haemophilia. Formaldehyde - inactivated HAV vaccine. Single dose persist for at least one year and immunity lasts >10 years

### 3. Hepatitis B

This vaccine is made of recombinant HBsAg and it offers life-long immunity after 3 doses.

### 4. Rabies

Vaccine usually combined with passive immunisation with rabies specific antibodies to those bitten by rabid animals. The rabies vaccination consists of three injections over the course of a month. Booster injections every two years are needed for continued protection after that.

## 5. Japanese Encephalitis

Inactivated mouse brain vaccine is effective. South East Asia and Far East.

## Other Vaccinations

- Poliomyelitis
- DPT (Diphtheria, Pertussis, Tetanus)
- MMR (Mumps, Measles, Rubella)
- BCG (for TB)

## Links

### Bibliography

- World Health Organization. *Traveller Vaccinations* [online]. ©2011. The last revision 2011-04-27, [cit. 2012-01-20]. <<http://www.who.int/ith/updates/20110427/en/>>.
- NHS. *Travel Vaccines* [online]. The last revision 2011, [cit. 2012-01-20]. <<http://www.nhs.uk/Planners/vaccinations/Pages/Travelvaccines.aspx>>.