

PREPARING A PT FOR TRAVEL

1. Diseases spread through **food** and **water**
2. Diseases spread through **blood** and **bodily fluids**
3. Diseases transmitted by **insects**

DISEASE TRANSMITTED THROUGH FOOD AND WATER

DISEASE	NOTES	PX/TX
TRAVELER'S DIARRHEA <i>E. coli</i> (80-90%) <i>Campylobacter jejuni</i> <i>Shigella</i> <i>Salmonella</i>	<ul style="list-style-type: none"> - Dysentery - if blood is in the stool (classified as severe). - Mild: tolerable, doesn't interfere with activities - Mod: distressing, interferes with planned activities - Severe: incapacitating, completely prevents activities - Onset of sx: 6-72 hrs - Untreated TD: 3-7 days - Persistent TD = >14 days - TD can result in IBS 	<p>RULE: "cook it, peel it, or forget it"</p> <p>PX:</p> <ul style="list-style-type: none"> - Bismuth subsalicylate (BBS), Pepto-Bismol - Abx is not usually rec., give to high risk pts - Recommended Abx: Rifaximin <p>TX: Hydration (↑ fluid and salt)</p> <p>Mild: Loperamide Mod: *Loperamide +/- antibiotics Severe: Azithromycin 1g x 1 +/- Loperamide Note: Loperamide = 'IMODIUM A-D'</p>
TYPHOID FEVER <i>Salmonella typhi</i>	<ul style="list-style-type: none"> - Can be severe and life-threatening - Vaccines are 50-80% effective - Wash hands and take food/water precautions even if vaccinated 	<p>Vaccines:</p> <p>Vivotif</p> <ul style="list-style-type: none"> - Oral, live, attenuated - Don't use if on Abx or stomach's sensitive - Q5yrs - 1 week before traveling - Don't use <6yo <p>Typhim Vi (inactivated, IM)</p> <ul style="list-style-type: none"> - Q2yrs - ≥ 2 weeks before - Don't use <2yo
CHOLERA <i>Vibrio cholerae</i>	<ul style="list-style-type: none"> - "Rice water stools" 	<p>Vaccines:</p> <p>Vaxchora</p> <ul style="list-style-type: none"> - Live-attenuated - Single, oral - Min: 10 days before - Age: 18-64



DISEASE TRANSMITTED THROUGH FOOD AND WATER (cont)

- POLIO**
- Vaccine given in childhood
 - Single lifetime booster dose min 4 wks prior to travel is recommended for adults who are traveling to regions with it
 - May have to show proof of vaccination
 - Documented on Certificate of Vaccination or Prophylaxis (ICVP)
- HEPATITIS A**
- At highest risk: person traveling from developed country to developing countries
 - Can be asymptomatic
 - Symptoms: fever, malaise, jaundice, nausea, abdominal discomfort

DISEASES TRANSMITTED THROUGH BLOOD & BODILY FLUIDS

- HEPATITIS B**
- Cause: blood and bodily fluids
 - Incubation of 90 days
 - Sx: malaise, jaundice, nausea, GI discomfort
 - Chronic infection can result in chronic liver disease or liver cancer
 - Vaccine is really important if travelers plan on:
 - Receive medical care
 - Provide medical work
 - Have sex w/ new partners
 - Avoid piercings/tattoos
 - 3-dose vaccine series
 - 6 mo to complete
 - Receive as many doses as possible before traveling
 - Can complete upon return
 - High risk: May admin accelerated series
 - Requires booster dose at 1 yr for long-term immunity
- MENINGOCOCCAL MENINGITIS**
- N. meningitidis*
- Cause: **respiratory secretions**
 - High mortality rate
 - Medical emergency
 - Sx: fever, HA, nausea, stiff neck, mental changes
 - Requires urgent tx
 - Quadrivalent vaccine containing 4 bacterial types: ACWY
 - Required by Saudia Arabia govt. during annual Hajj and Umrah pilgrimages
 - Belt of Africa (Dec-Jun)



DISEASES TRANSMITTED BY INSECT BITES

THESE ARE ALL TRANSMITTED BY MOSQUITOES

DENGUE

Aedes aegypti

Aedes albopictus

- Asymptomatic

- Can develop life-threatening disease

- Sx: shock, severe bleeding, organ failure

- No vaccine

-Tx: Supportive care

MALARIA

Anopheles mosquito

- Multiplies in the liver and then moves into RBCs

- Sx: shaking chills, high fever, flu-like illness

Quick start PX:

- Atovaquone/Proguanil (Malarone)

- Doxycycline (Doryx, Vibramycin)

- Primaquine (most effective against *P. vivax*)

Types:

- *Plasmodium vivax* (most common)

- *P. falciparum* (most deadly)

- *P. malariae*

- *P. ovale*

Advance start PX:

- Chloroquine

- Mefloquine (Lariam)

JAPANESE

ENCEPHALITIS

- Sx: asymptomatic or

Sx: encephalitis w/ rigors & seizure risks, coma, and death

- Most likely infected in rural agricultural areas

PX: reduce exposure to mosquitoes

Vaccine: *Ixiaro*

- Age > 2 mo

- who's spending time outdoors or

- who's staying min 1 mo in endemic areas

YELLOW FEVER

- Sx: most are asymptomatic, influenza-like sx, risk of shock and organ failure

Vaccine:

YF-VAX

- Live-attenuated

- Contra: hypersensitivity to eggs

- ICVP ("yellow card") provided after

- Card is only valid if completed 10 days before

TX: symptomatic relief with fluids, analgesics, and antipyretics

- Aspirin and other NSAIDs **cannot** be used (↑ risk of bleeding)

DISEASES TRANSMITTED BY INSECT BITES (cont)

ZIKA VIRUS	- Sex or blood transfusion-associated transmission	- No vaccine
<i>Aedes</i>	- Sx: fever, maculopapular rash, arthralgia, conjunctivitis	- Use condom
	- Caused babies to be born with microcephaly	- Avoid mosquitoes
		- Do not travel to areas if pregnant

- Insects that transmit disease are vectors
- Stay and sleep in screened or rooms w/ AC
- Use bed net (can be pre-treated w/ repellent)
- Cover exposed skin
- DEET: mosquito repellent
- Picaridin, oil of lemon, eucalyptus, or IR3535: mosquito repellent (not ticks)
- Permethrin to treat clothing, gear, bed nets
 - Do **not** apply directly to skin

ADDITIONAL CONCERNS FOR TRAVELING INDIVIDUALS

VENOUS THROMBOEMBOLISM PX

PX:

- Compression stockings
- Walk
- Lower leg exercises

ALTITUDE SICKNESS AND MOTION SICKNESS

- Acute mountain sickness (AMS)
 - Occurs when you climb rapidly to a high altitude

PX:

- Acetazolamide (*Diamox*) 125 mg BID day before (preferred) or day of
 - Contra: sulfa allergy
 - AE: rash, taste alteration, dehydration, photosensitivity, urticaria

