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Everything You Would Want to Know About Contracting a Tropical Disease

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Abstract
Why travel? To broaden the mind. Undoubtedly travel also broadens your exposure to tropical diseases. Given the current United Kingdom climate you will have to travel to get a tropical disease. This is easy given sufficient funds. You can be anywhere in the world within 36 hours. A t any one time no less than about 300,000 people are airborne. The average intercontinental jet is airborne for about 17 hours out of 24. And this is a longer proportion of life than for many birds.

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Everything You Would Want to Know About Contracting a Tropical Disease

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Why travel? To broaden the mind. Undoubtedly travel also broadens your exposure to tropical diseases.

Given the current United Kingdom climate you will have to travel to get a tropical disease. This is easy given sufficient funds. You can be anywhere in the world within 36 hours. At any one time no less than about 300,000 people are airborne. The average intercontinental jet is airborne for about 17 hours out of 24. And this is a longer proportion of life than for many birds.

Do not prepare for your trip.
Do not take informed advice. Or if you do decide to take advice, present yourself a few day before departure so that most immunisations will not kick in to protect you from the moment you arrive.

Do not get immunised.

Do not consider the risks to which you might be exposed.

Do not consider that your itinerary might change.
Similarly do not consider the areas you might be passing through on the way to your destination.

Disregard malaria.
Do not take malarial prophylaxis. But if, by chance, you decide to take it, only start on arrival in the area concerned. That way weekly therapy will not have had a chance to achieve sufficiently high blood levels.
Take tablets spasmodically when there.
If you stay for any length of time realise that nothing has happened and thus the tablets cannot have been doing any good and therefore stop taking them. People do this! Alternatively if you get trivial side effects use this as an excuse for not taking the tablets. Take note of reports that some people have got malaria even though they were taking prophylaxis and thus stop taking your tablets - do not question whether these people who caught malaria were taking prophylaxis appropriately and regularly. And ignore the fact that their malaria would have been worse, possibly fatal, if they had not been on prophylactic tablets. Do not take tablets after return (taking tablets for at least four weeks after return is necessary to ensure that all liver based parasites have left the liver to be killed in the blood). Finally disregard any fever you may have after return – label it "flu" (when at the time of writing there is little genuine flu in the world). If febrile after return do not insist that your doctor requests a *specially stained* blood film (if necessary three films). A standard blood film will not diagnose malaria.

To acquire viral haemorrhagic fever visit at risk areas.
There are outbreaks of Ebola virus from time to time in central and east Africa. Lassa fever is found in sub-Saharan bush areas of central and west Africa. Visit bush huts where the multimammate rats run in the thatch and provide an aerosol of Lassa virus infected urine.

Make no effort to avoid gastroenteritis.
Of course it is perfectly possible to get gastroenteritis at home. In the UK we are relatively protected because sewage disposal is well regulated, commercial food preparation is well regulated and water has to be uncontaminated. If any of these three are defective then someone loses their job. This is not necessarily the case elsewhere in the developing world. Or particular note the local river may be the vehicle for sewage disposal upstream and provide the water supply downstream. Many of the bacterial tropical gastroenteritides are faecal-oral spread which, put bluntly, means eating or drinking faeces from animal or human sources. The commonest form of persistent traveller's diarrhoea, giardiasis, is usually spread by contaminated water. It is not just a tropical disease – the water supply in Leningrad, hardly a tropical area, has been infected. Try to drink water you know has not been purified. Use locally prepared ice and take every opportunity to slake your thirst from local rivers

Do not bother to be vaccinated against Typhoid and Paratyphoid fevers. Typhoid and paratyphoid fevers often present with fever with initial constipation (and not diarrhoea) because of dehydration. Both are strict human pathogens and thus you have to ingest human faeces or urine.

Ignore the risk of meningitis.
Fail to be vaccinated when visiting at risk areas.

Offer a home for worms.
Most gastrointestinal worms are acquired by ingestion of ova, cysts, or parasites. Gastrointestinal worms mature in the gut, mate, have babies (larvae), or lay eggs, or form cysts. Again contaminated food or water transmits infection. The overwhelming majority of infections are asymptomatic and, if diagnosed, the only symptom is horror. Swim in non-running water, usually in African lakes (Lake Malawi is a favourite for medical students) so that you can host schistosomiasis (Bilharzia). The parasite penetrates the skin, and may cause swimmers' itch and then spreads via the bloodstream with the male and female worm locked in perpetual copulation (they have a very sophisticated lifestyle!) and lay eggs in various internal organs (gut, liver or urinary tract). The eggs elicit a granulomatous reaction and which heals with fibrosis and bleeding. Low-grade one-off infections are unlikely to cause much problem (although if eggs are laid in crucial areas such as the spinal cord there may be devastating results). Diagnosis and therapy are relatively simple and medical students will be relieved to note that rectal snips are not routine these days. On return get worried about Schistosomiasis but be aware that, apart from Swimmers' itch or a febrile reaction to initial egg laying (Katayama fever), there will be no excretion of eggs for about six weeks after infection and the antibody tests will be only start to be positive after this time.

Tread on human stools.
Human hookworm penetrates the skin, usually of the feet, travels to the lungs, travels up through the lungs, dives into the oesophagus and then takes up residence in the gut where, if infection is severe, anaemia can result. The parasite is liberated with human stools and the cycle is repeated when you stand on an infected human stool. Morale? When visiting bush latrines always wear shoes.

Tread on dog stools.
Dog hookworm larvae cannot complete this interesting life cycle by entering human veins and lymphatics to reach the lungs, and the larvae wander in the skin causing an intensely irritating rash until the larvae die out.

Most worm infection would die out given time. An exception is strongyloides which has a similar life cycle to the human hookworm, except that their babies, the larvae, form in the gut and can burrow through the skin to cause rapidly moving urticarial tracks (cutaneous larvae currens) to repeatedly complete the life cycle in an individual human.

Risk hepatitis.
Do not bother to be vaccinated (or know you have antibodies against) hepatitis A. Hepatitis A is acquired by the faecal-oral route. Children who get infected are rarely very ill but adults who get infected in the tropics probably have a higher infecting dose and a more mature immune system and thus are more likely to be ill and jaundiced.

Have unprotected sex.
Have unprotected sex with partners whose risk factor(s) are uncertain. Statistically people are more likely to acquire hepatitis B (about 1 in 50 exposures) than HIV (about 1 in 300 exposures) by sexual contact with those infected with the relevant viruses. However all medical students should have been assessed for hepatitis B vaccination. Even if you avoid HIV and hepatitis B there are other sexually transmitted diseases.

Ignore persisting circular rashes.
Circular rashes with rolled edges with crusting or flaking, especially if they do not heal with antibiotics, may be fungal but Leishmaniasis is a possibility.

Do not bother to ensure that you are up to date with tetanus and polio vaccinations.
Ignore the fact that no vaccine, except perhaps yellow fever, gives you a (limited) guarantee of immunity.

Regard traffic as an irritation rather than a threat to your well being
You are more likely to be injured or die from road traffic accidents than tropical disease. In some developing countries the potholes in so-called roads are so frequent that the ride is smoother if the driver speeds so that the wheels do not bottom out with each pothole, providing risks for car occupants and pedestrians alike.

So after all that, your next holiday should be a doddle when looking for that unusual souvenir to bring back.