

Ghana
Common Diseases: Prevention, Signs/Symptoms, Treatment

A. Communicable diseases

Meningococcal meningitis—spread from person to person by exchanging respiratory and throat secretions during close or lengthy contact

- Prevention: vaccination, avoid close contact with infected persons
- Symptoms: stiff neck, high fever, sensitivity to light, confusion, headache, vomiting
- Treatment: antibiotics (ceftriaxone is preferred)

HIV—caused by contact of between broken skin, wounds, or mucous membranes and HIV infected blood or contaminated bodily fluids

- Prevention: avoid high risk behaviors such as needle sharing and having unprotected sex
- Symptoms: fever, headache, tiredness, enlarged lymph nodes (flu like),
- Treatment: antiretroviral therapy

B. Infectious Disease

Hepatitis A – transmitted by virus being ingested by mouth through contact with objects, food, or drinks

- Prevention: vaccination, washing hands after going to the bathroom and before eating, as well as after coming into contact with diapers or stool. Most commonly contaminated foods are fruits, vegetables, shellfish, ice, and water—be cautious when consuming.
- Symptoms: fever, fatigue, loss of appetite, nausea, vomiting, abdominal pain, dark urine, joint pain, jaundice. Symptoms appear anywhere from 2 to 6 weeks after exposure
- Treatment: no special treatment for Hepatitis A—proper nutrition and hydration can help. Avoid alcohol, prescription pills, supplements, and over the counter medications that can damage the liver.

Typhoid Fever—transmitted by consuming food or beverages that have been handled by a person who is shedding Salmonella Typhi or if sewage containing the bacteria interacts with food or beverages

- Prevention: vaccination, hand washing, boil water or buy bottled water, avoid ice/raw food and vegetables
- Symptoms: fever (as high as 103/104), weakness, stomach pains, loss of appetite, rash present in some cases
- Treatment: antibiotics (fluoroquinolones, ceftriaxone, and azithromycin)

Bacterial and Protozoal Diarrhea—caused by ingesting food or beverages that have come in contact with feces

- Prevention: wash hands or use alcohol based hand sanitizers, antimicrobial drugs, Pepto Bismol (2oz liquid or 2 chewable tablets 4 times per day—not recommended for children younger than 12)
- Symptoms: abrupt onset of diarrhea, nausea and vomiting, bloating, malaise, explosive/painful gas, cramps, loss of appetite

- Treatment: antibiotics, antimotility agents (symptomatic relief), oral rehydration therapy, for protozoan caused diarrhea: metronidazole, tinidazole, and nitazoxanide

Schistosomiasis—when people suffering from **schistosomiasis** contaminate freshwater sources with their excreta containing parasite eggs, which hatch in water. People become infected when larval forms of the parasite penetrate the skin during contact with infested water

- Prevention: avoid swimming or wading in freshwater, drink safe water, towel off vigorously after accidental water exposure
- Symptoms: rash, fever, cough, chills, muscle aches
- Treatment: prescription medication (Praziquantel)

C. Vector-borne diseases

Malaria – caused by parasites passed to humans via mosquito bite

- Prevention: sleep under insecticide coated mosquito nets, wear protective clothing, DEET, anti-malarial medicine (Lariam)
- Symptoms: high fever, sweats, headache, body aches, nausea/vomiting
 - *Symptoms can be cyclical, receding and peaking every 48-72 hours*
- Diagnosis: + blood smear, CBC indicating anemia, abnormal liver function tests (LFTs)
- Treatment: anti-parasitic drug regimen with follow-up testing and treatment as indicated

Dengue – caused by a virus passed to humans via mosquito bite

- Prevention: sleep under insecticide coated mosquito nets, wear protective clothing, DEET
- Symptoms: high fever, severe joint pain, headaches, pain behind the eyes, extreme fatigue, nausea/vomiting, rash 2-5 days after onset of fever
- Treatment: manage symptoms with acetaminophen, fluids, rest

Yellow Fever – caused by a virus transmitted to humans via mosquito bite

- Prevention: Use insect repellent (DEET), wear protective clothing such as long sleeves/pants and socks, spraying clothing with permethrin provides extra protection, peak mosquito hours are dusk to dawn so be sure to take extra precautions during daylight hours
- Symptoms: initial symptoms include sudden onset of fever, chills, severe headache, back pain, general body aches, nausea, vomiting fatigue and weakness (most people improve after this initial presentation of symptoms), severe form of the disease is characterized by high fever, jaundice, bleeding
- Treatment: manage symptoms with rest, fluid, and use of pain relievers and medication to reduce fever (nonsteroidal anti-inflammatory drugs such as ibuprofen should be avoided as they may increase the risk of bleeding)

D. Reproductive Issues:

- Main targets of reproductive health in Ghana:
 - Family planning
 - Prevention and management of unsafe abortions and post abortion care

- Prevention and treatment of reproductive tract infections and sexually transmitted infections (STI), as well as HIV/AIDS
- Improve maternal mortality
 - Annual number of maternal deaths (2013): 3,100
 - Annual number of neonatal deaths (2013): 23,110

E. Chronic diseases:

- **Hypertension** (almost 70% of all hospital deaths are caused by hypertensive conditions, affects ~1/5 adults)
 - Clinical criteria = blood pressure \leq 140/90 consistently
 - Self treatment = lower sodium in diet, no tobacco use, limited alcohol consumption, increase potassium (fruits/vegetables) in diet, reduce stress, weight loss, regular moderate exercise
- **Stroke** (2/3 of stroke mortality occurs in sub Saharan africa)
 - Clinical criteria = BMI \geq 30
 - Self treatment = prevent risk factors such as obesity, hypertension, diabetes, and smoking
- **Tobacco use** (18.8% of females, 19.5% of males)
 - Regular/daily use of tobacco products
 - Self treatment = taper down, avoid triggers, exercise, behavior replacement
- **Diabetes/Prediabetes**
 - Clinical criteria:
 - A1C \geq 6.5%
 - Fasting plasma (blood) glucose \geq 125 mg/dL
 - Random plasma (blood) glucose \geq 200 mg/dL
 - Symptoms: frequent urination, sweet smelling sweat/urine/breath, extreme thirst, extreme fatigue, blurry vision, slow healing of cuts/bruises, tingling/pain/numbness in hands/feet
 - Self treatment = weight loss, abstain from alcohol, increase nutrient dense foods (vegetables, lean protein), avoid “empty” calories - packaged foods, sugar, flour, “white” foods
- **Cancer**
 - Most common:
 - Males: Liver (21.1%), Prostate (13.2%), Lung (5.3%), Stomach (5.3%)
 - Females: Breast (33.9%), Cervix (29.4%), Ovarian (11.3%), Endometrium (4.5%)
 - Prevention: engage in healthy behaviors such as limited alcohol consumption, avoiding tobacco, eating healthfully, exercising regularly, etc.