Hepatitis A virus (HAV)

**Hepatitis A virus (HAV)** is transmitted by the fecal-oral route. After its ingestion, the HAV replicates in the liver and in the mucosal cells of the small intestine and is shed in high concentrations in the feces for up to several weeks. Microscopic quantities of contaminated feces are a source of infection to others through very close physical contact (including sex) and from contaminated food or water. Although HAV is in the bloodstream for short periods of time early in infection (“viremia”), blood is not an important source of infection. Fortunately, HAV cannot develop into chronic infection and can be prevented through vaccination.

Hepatitis B virus (HBV)

**Hepatitis B virus (HBV)** is a blood-borne virus. Once an individual is infected, the virus is housed in the liver and released into the bloodstream. HBV is probably not found in feces (unless there is contamination by blood) and fecal-oral transmission does not occur. HBV is found in highest concentrations in blood and in lower concentrations in other body fluids (e.g., semen, vaginal secretions, and wound exudates). HBV is efficiently transmitted by percutaneous or mucous membrane exposure to infectious blood or body fluids that contain blood. HBV is also efficiently spread via sex and from mother to infant at birth. HBV can develop into chronic infections and be prevented through vaccination.

Hepatitis C virus (HCV)

**Hepatitis C virus (HCV)** infection is the most common chronic blood-borne infection in the United States. HCV is most efficiently transmitted through large or repeated percutaneous exposure to infected blood (e.g., through transfusion of blood from unscreened donors or through use of injecting drugs). Although much less frequent, occupational, perinatal, and sexual exposures also can result in transmission of HCV. HCV can develop into chronic infections and no vaccine exists to prevent infection with HCV.

Hepatitis D virus (HDV)

**Hepatitis D virus (HDV)**, also known as “delta hepatitis,” is an RNA virus structurally unrelated to the Hepatitis A, B, or C viruses. Hepatitis D, which can be acute or chronic, is uncommon in the United States. HDV is an incomplete virus that requires the helper function of HBV to replicate and only occurs among people who are infected with the Hepatitis B virus (HBV). HDV is transmitted through percutaneous or mucosal contact with infectious blood and can be acquired either as a coinfection with HBV or as superinfection in persons with HBV infection. There is no vaccine for Hepatitis D, but it can be prevented in persons who are not already HBV-infected by Hepatitis B vaccination.

Hepatitis E virus (HEV)

**Hepatitis E virus (HEV)** is transmitted through ingestion of fecal matter, even in microscopic amounts. While rare in the United States, Hepatitis E is common in many parts of the world. Outbreaks are usually associated with contaminated water supply in countries with poor sanitation. Infection with HEV usually results in an acute infection and does not lead to a chronic infection. There is currently no FDA-approved vaccine for Hepatitis E.