

Syringe Exchange Programs and Hepatitis B

What is hepatitis B?

Hepatitis B is a virus that can cause serious liver disease. HBV is spread by body fluids, most often through unprotected sexual contact or unsafe injection drug use, and sometimes from mother to baby at birth. Because its symptoms are often mild or unnoticeable, many people infected with HBV do not realize they are infected, and continue to pass the infection on to others. While most cases of HBV are cleared by the immune system, some people develop chronic (long-term) HBV infection, which can lead to serious liver damage (including liver failure or cancer).

Syringe exchange programs and hepatitis B prevention

Syringe exchange programs (SEPs) are a public health strategy designed to reduce the spread of blood-borne illnesses, such as HIV and hepatitis B and C, by providing injection drug users (IDUs) with access to sterile syringes and injection equipment.² Historically, drug users in Amsterdam launched the first SEP in the early 1980's specifically to prevent the HBV. SEPs help reduce the spread of HBV in two ways: by providing sterile syringes and through HBV vaccination programs. IDUs who participate in syringe exchange programs are less likely to become infected with HBV.³

Hepatitis B is a serious health problem among injection drug users. Around 17% of new cases each year are found among IDUs, and 50-70% of IDUs have been infected with HBV. HBV can be prevented through vaccination and through safer sex and safer injection practices.¹

Vaccination programs

The Advisory Committee for Immunization Practices (ACIP) recommends hepatitis A and B vaccination for all injection drug users. However, many IDUs do not have access to medical care and overall vaccination rates among drug injectors are low.⁴ SEPs provide an ideal venue for vaccinating IDUs.⁵ In New York City, a study of young drug users (both injectors and non-injectors) found that over half of eligible study participants received at least one dose of hepatitis B vaccine; of this group, 40% completed the three-shot series.⁶ Other vaccination programs reaching IDUs have shown similar positive effects. In New Haven, IDUs offered hepatitis B vaccination at a medical van linked to an SEP site showed high rates of adherence. Out of all eligible exchange participants, 77% completed two vaccinations and 66% received all three vaccinations.⁷ Among young injectors offered vaccination in a San Francisco research study, 75% received two doses of hepatitis B vaccine and 47% received all three doses. Young IDUs who completed the vaccine series were more likely to attend syringe exchange programs.⁸ A 2002 survey of 126 United States SEPs found that 33% of programs provided vaccination for hepatitis A and 36% offered hepatitis B vaccine.⁹



According to the Centers for Disease Control and Prevention, persons at high risk for HBV infection include:

- Persons with multiple sex partners or diagnosis of a sexually transmitted disease
- Men who have sex with men
- Sex contacts of infected persons
- Injection drug users
- Household contacts of chronically infected persons
- Infants born to infected mothers
- Infants/children of immigrants from areas with high rates of HBV infection
- Health care and public safety workers
- Hemodialysis patients¹⁰

1 Centers for Disease Control. 2002. Viral Hepatitis and Injection Drug Users. <http://www.cdc.gov/idu> (2/21/06). **2** Centers for Disease Control and Prevention. 2005. Syringe Exchange Programs (December 2005). Retrieved from http://www.cdc.gov/idu/facts/aed_idu_syr.pdf, on (2/11/06); Centers for Disease Control and Prevention. 2005. Access to Sterile Syringes (December 2005). Retrieved from http://www.cdc.gov/idu/facts/aed_idu_acc.pdf, on (2/11/06). **3** Hagan H, Des Jarlais DC, Friedman SR, Purchase D, Alter MJ. 1995. Reduced risk of hepatitis B and hepatitis C among injection drug users in the Tacoma syringe exchange program. *American Journal of Public Health* 85(11): 531-537. **4** Kuo I, Sherman SG, Thomas DL, Strathdee SA. Hepatitis B virus infection and vaccination among young injection and non-injection drug users: missed opportunities to prevent infection. *Drug Alcohol Depend*. 2004 Jan 7;73(1):69-78. **5** Purchase D, Mottram K, Miron C, Sharma D, Cruz-Uribe F, et al. Hepatitis B vaccination for injection drug users--Pierce County, Washington, 2000. *MMWR* 2001 May 18;50(19):388-90, 399. **6** Ompad DC, Galea S, Wu Y, Fuller CM, Latka M, et al. Acceptance and completion of hepatitis B vaccination among drug users in New York City. *Commun Dis Public Health*. 2004 Dec;7(4):294-300. **7** Altice FL, Bruce RD, Walton MR, Buitrago MI. Adherence to hepatitis B virus vaccination at syringe exchange sites. *J Urban Health*. 2005 82(1):151-61. **8** Lum PJ, Ochoa KC, Hahn JA, Page Shafer K, Evans JL, et al. Hepatitis B virus immunization among young injection drug users in San Francisco, Calif: the UFO Study. *Am J Public Health*. 2003 93(6):919-23. **9** McKnight CA, Des Jarlais DC, Perlis T, Eigo K, Krim M, et al. Update: syringe exchange programs--United States, 2002. *MMWR* 2005 Jul 15;54(27):673-6. **10** Centers for Disease Control and Prevention Hepatitis B Fact Sheet <http://www.cdc.gov/ncidod/diseases/hepatitis/b/fact.htm>

