

## **Protecting against viruses and spyware**

Viruses and other similar threats are, unfortunately, an everyday part of the internet. The best way to avoid them is to **install a good antivirus application and keep it updated.**

### **What's a virus?**

The term virus is thrown around pretty loosely these days, and some of the malicious items out there that people call viruses are actually other things, such as worms and Trojan horses. A real virus is a file virus. It might infect the boot sector of a disk, and load itself into RAM when the computer starts. It might infect executable files by adding its own code to them, so whenever that executable file runs, the virus does its mischief. The virus spreads when that executable file is run on another computer. That type of virus is no longer very common. Much more common today are worms spread via email or file-sharing programs. Rather than infecting individual files, they infect PCs. They generally spread by attaching themselves to your outgoing email or automatically mailing themselves to everyone in your address book. Further, many of them spoof the "From" address, so the message appears to be from someone the receiver knows.

### **Is your PC infected?**

If you don't run an antivirus application, you are at much greater risk for virus infection—maybe multiple infections. Yes, they are that common. Some users receive many infected emails every day. An antivirus program can stop these viruses from infecting your PC.

**You also might have a virus if your antivirus definitions aren't up to date (for example, if you let your subscription expire) or you've disabled your virus checker for some reason (perhaps to install new software) and didn't re-enable it.**

### **Antivirus options**

Microsoft offers the [Malicious Software Removal Tool](#), which checks your computer for malicious software. Although this tool isn't comprehensive and can't replace antivirus software, it can identify and remove major virus threats. This application doesn't prevent virus attacks; rather, it's designed to identify and remove malware from an

already compromised PC. If you aren't running antivirus software, acquire and install a package immediately. You can download Microsoft Security Essentials, AVG Anti-Virus Free Edition or Avast Home Edition for free. For more comprehensive protection, buy Symantec Norton AntiVirus (as a standalone program or as part of the Norton Internet Security suite) or some other reputable software.

However, here's a minor gotcha: If you already have a virus infection, you might be unable to install antivirus software. Retroviruses can often prevent such installation. So if you can't install antivirus software, try an online virus detection utility to determine which virus(es) you have. Then run a free removal tool for each virus from various places on the internet, including the [Symantec](#) website.

You can also review the information provided by HP on the [Personal computing security center](#) website for additional information on keeping your PC safe. The latest versions of most antivirus programs have a pre-installation virus check utility that runs during setup. So when you install from the CD/DVD version of an antivirus program, you can check your system prior to installation.

An antivirus program is only as good as its last update. Good-quality antivirus software comes with an automatic update component that checks the company's website every day and downloads needed files. The list of viruses and instructions for checking for them are called virus definitions.

### **What's spyware and adware?**

Spyware is software that installs itself on your PC (usually without your consent) and then hides, secretly gathering data about you and sending it back to its owner. This information can include shopping habits and even banking account information, credit card numbers, passwords and identity data. Adware is a related product that pops up advertisements on your screen. Both can be acquired when novices surf the internet and innocently click pop-ups and banners that offer some free service.

### **Is your PC infested?**

So how do you know whether your system has been infected with spyware?

The following are just a few indicators:

- **Your computer is suddenly slower than usual or low on memory and resources.**

- **There's a sudden change in how your computer behaves.**
- **It takes much longer to perform common tasks or boot up your computer.**
- **Pop-up ads appear when you're not online.**
- **Your hard drive continually makes a working noise even when you aren't using the computer.**
- **Components of Microsoft Windows 7 or other applications don't work normally.**
- **Settings in your web browser change, such as your home or search page, and mystery items appear in your Favorites folder.**

As with viruses, the key to protection is prevention: you must install an antispyware program on your PC to provide real-time protection for your system. Because no single antispyware program is 100-percent effective against all known forms of spyware, most experts recommend using at least two forms of antispyware protection. Run one in the background at all times; configure the other to scan your system once a week or so to pick up things that the first package misses.

### **Antispyware options**

Windows 7 comes equipped with an antispyware package called Windows Defender. It makes a good backup antispyware program. However, for the best protection, turn to one of the three industry leaders: PC Tools Spyware Doctor, Webroot SpySweeper or Sunbelt Software CounterSpy. If you're in the market for a do-it-all security suite with a best-of-breed antispyware component, try Norton Internet Security or the most current version of McAfee Total Protection. These are commercial products that cost between \$30 and \$70 per year per PC. If you can't afford that, try Lavasoft Ad-Aware Free or Spybot-Search & Destroy for your primary antispyware program. To run Windows Defender, click Start, type windows defender in the search text box and then press Enter. Windows Defender is turned off by default, so the first time you attempt to run it, a Windows Defender dialog box appears. Click the [click here to turn it on](#) link. The Windows Defender window appears. Open the Scan drop-down list on the menu bar, and then select Quick scan, Full scan or Custom scan.