

Four things you absolutely have to do to keep your computer healthy

To keep your machine running smoothly, perform these maintenance functions once or twice a month

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Run Spybot

To keep your machine free of spywareⁱ, you must run a spyware removal tool at least once a week. Right now, the top two tools available are Spysweeper and Spybot. Please note that although some antivirus software detects spyware, none of the antivirus software is able to remove it.

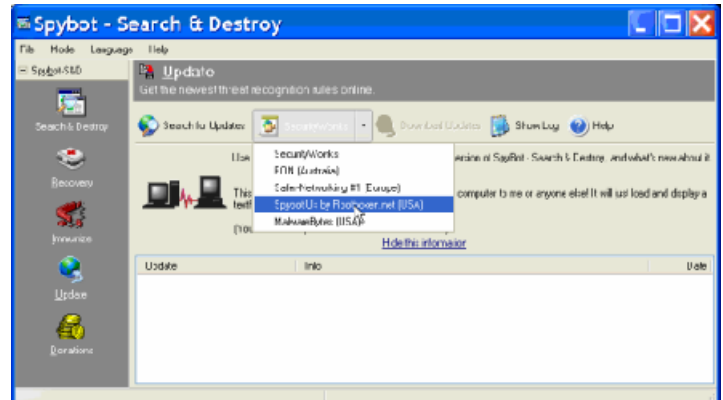
Spybot is free, so we'll discuss the use of this tool. Download and install Spybot from www.download.comⁱⁱ, the download site for CNET. Once installed, download updates, update your immunizations, scan for new spyware, and remove the spyware.

Double click Spybot Search & Destroy.



1. Make sure you are connected to the internet.
 - a. From the left panel, click "Update".
 - b. On the top toolbar, click "Search for Updates."
 - c. Click the box to the left of each update that is listed in the box below.
 - d. If updates are available, click "Download Updates". When the update is done, proceed to step 2.

NOTE: If you get a message indicating a "checksum" problem, you'll need to change download sites for the updates. (There are so many people using Spybot that the locations doing the downloads get overloaded periodically.) To do this, click the drop down arrow on the button to the right of "Search for updates". A list of download sites will appear. I've found that the fourth entry (Spybot.US by Rootboxen.net) seems to work consistently. After selecting this entry, click on "Search for Updates" again.



2. From the left panel, click "Immunize" to update your computer's immunizations. On the top toolbar, click "Immunize".
3. From the left panel, click Search & Destroy. On the top toolbar, click "Check for problems".
 - a. When scan completes, click "Fix selected problems" (on the top toolbar).

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- b. If you're running Windows ME or XP, you may be prompted to create a recovery checkpoint. Follow the onscreen instructions to complete this step.
- c. If you're told that you need to reboot your machine to remove all problems, please close down open applications, then reboot and let the scan process repeat itself.
 - The scan may stop several times during the reboot.
 - DO NOT CANCEL THE SCAN! It is normal for it to stop occasionally.

Defrag your hard drive

To keep your hard drive organized and fast, defrag weekly. You can get to the Defragmenter as follows.

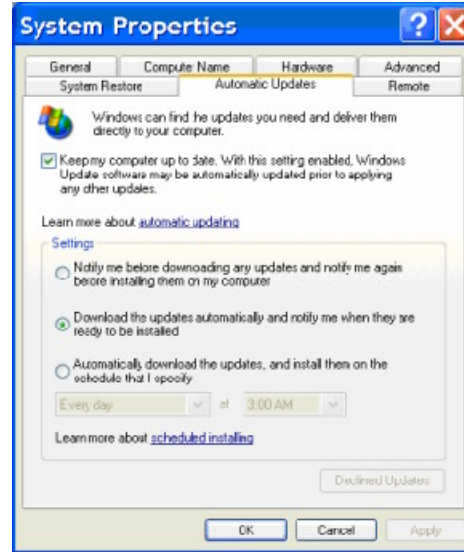
1. Windows XP Users:
 - a. Click Start | All Programs | Accessories | System Tools | Disk Defragmenter.
 - b. Click the button that says "Defragment"
 - c. Let it run until it is finished.
2. Windows 95, 98, ME users
 - a. You'll need to start your machine in safe mode to run this tool. Shut down your machine and restart it. IMMEDIATELY after the machine turns on, start tapping the F8 key. Don't stop until a menu shows up asking if you want to start in safe mode. Use the arrow keys on your keyboard to select Safe Mode. You may have to press the enter key several times to completely start up the machine. Safe Mode starts your machine with no programs turned on. It also starts it with the lowest quality video available – so don't be alarmed.
 - b. Make sure your screensaver is turned off.
 - Right click a blank area of the desktop. Click Properties.
 - Select the Screensaver tab. Make sure no screensaver is selected.
 - Click OK.
 - c. Click Start | Program Files | Accessories | System Tools | Disk Defragmenter. Follow the on screen directions to run the tool.


Keep antivirus software up to date

1. Make sure you have the latest virus definitions.
2. Run a virus scan of your machine.

Install any and all available Critical Windows Updates

1. Windows XP (and ME?) users
 - a. To make sure automatic updates are turned on, right click My Computer. Click Properties. Select the automatic updates tab. Make sure the window looks like this:



- b. When it's time to update, you'll see this symbol  appear in the system tray in the bottom right corner of the screen. After closing all open programs, click the symbol and install the updates.

2. Windows 95, 98, (ME?) users
 - a. Open Internet Explorer.
 - b. Click Tools | Windows Updates. Follow the onscreen instructions to download Critical Windows Updates.

Computer security threats beyond Viruses: Spyware

At least once a week, articles appear in the paper about the impact of new virus attacks on homes and businesses. Although most viruses are contracted through email, they can also be picked up through internet downloads (especially on file sharing sites) or through infected disks. Fortunately, there is preventative maintenance available to protect corporate investments from viruses. The leading Antivirus software – Norton Antivirus, McAfee, or Panda Titanium – are programs that will constantly update a computer's virus protection (as long as the computer is connected to the internet). Most people are not repeat victims of virus attacks. The downtime from the recovery period is usually enough to prompt them to institute antivirus procedures for all computers.

Unfortunately, a new breed of headaches for home and office computers has arisen – SPYWARE. If you're noticing an increase in popup ads, if your internet browser will not allow you to change your preferences, or if you notice a marked slowdown in internet speed, there's a good chance you're a victim of spyware. Spyware is

- Software that tracks your use of the internet and reports that information to third parties.
- The instigator of pop-up ads (gambling ads, porn ads) that have nothing to do with the site you're surfing. Often, there are no 'close' buttons to get rid of the ads. Trying to close them simply creates more ads!
- Software that reconfigures key components of the operating system, frequently causing it to crash.
- Software that can track your keystrokes on a machine. Companies are using this legally to track employee activities, while parents often use these tools to keep track of their children's internet activities. The FBI is even getting in on the act by using keyloggers to track down criminals. Unfortunately, if the FBI can install this on machines, spyware hackers will soon be doing this, too.
- Cookies, which are small text files that store information about a website you have browsed. Most cookies are no threat to your privacy. These cookies assist you in logging in or display your name when you return to a site. Cookies are bad when they are used with banner ads to track and correlate your surfing habits across websites.

Spyware is not always well tested, so it frequently conflicts with other software on your machine and can be the cause of system crashes. Unfortunately, spyware is a nuisance for which there are no adequate preventative tools. Most spyware is detected and removed only after it has caused machines to perform poorly. In extreme cases, the only way to adequately remove the spyware is to save all of your personal data to disk, reformat your machine, then reload all software and personal data.

So where does the spyware come from? Much spyware is acquired through file sharing websites (like Kazaa and Morpheus), through websites offering "enhanced" Internet browser toolbars (Xupiter, Hotbar, and Gator, to name a few), or simply by clicking on those annoying pop-up ads (often in an effort to close the ads). When you click on links in these sites, they download and install hidden software on your machine. If you read the small print on many of the sites, there may be a notation saying that clicking on links in their sites is your indication that you agree to whatever is downloaded. Software from these sites is not considered to be a virus and is not detected by antivirus software.

ii **What is Spybot?** Spybot is a free tool that can be downloaded and installed from www.download.com. Type Spybot in the search box, then look for Spybot 1.3. Follow the downloading instructions.

Further information about Spybot can be found at the website for the tool: www.safer-networking.org.