

# Medical Office Systems, LLC

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## May 2016, Safe Surfing, Part 3 Browsers, Search Engines, and Toolbars

OK, we have covered Toolbars and Search Engines, now it's time to turn to browsers. Browsers are the software you use to surf the internet, and there are three things you need to know about browsers: #1: There's a lot of them. #2: they all claim to be secure. #3: All of them have been hacked at one time or another. Let's look at the top 5 by market share:

The browsers with the biggest market share are as follows:

Rank	Percent	Company / Browser Name
#1:	54.3%	Google / Chrome
#2:	16.6%	Microsoft / Internet Explorer (includes Edge)
#3:	14.7%	Mozilla / FireFox
#4:	9.3%	Apple / Safari
#5:	2.1%	Opera / Opera
#6:	3.0%	All Others

Note that this market share analysis includes the total market share on Desktops, Laptops, Tablets and Smartphones.

Source: <http://www.sitepoint.com/browser-trends-january-2016-12-month-review/>

PWN2OWN is an annual hacker event (for "white hat" hackers) that offers prizes to hack software, on the condition that the hacks are reported to the software authors for remediation. At the 2015 PWN2OWN, event, EVERY browser was hacked, some several times. Even the Lynx browser was hacked: Lynx is plain-text only: no graphics, sound, or videos, and no Flash or Java weaknesses to exploit. Source: [http://www.infoworld.com Web Security Guide](http://www.infoworld.com/Web-Security-Guide)

Wow, all of them were hacked. The good news is these hacks are highly specialized and fortunately fairly rare in occurrence. So how do you pick a browser? Easy, pick the ones that have the fewest number of hacks. Google Chrome and Opera come out on top with fewest hacks at one (1) each. Next best: Safari (2), and Internet Explorer V11 (4). Dead last is Firefox, which has so many flaws it is not even going to be entered in the 2016 PWN2OWN contest.

As part of my security strategy, I have separated my browsing into two categories: 1) Business & Financial and 2) Recreational or Generic browsing. Why separate them? If the recreational use browser is hacked, my business and financial browsing is not part of it, and therefore less vulnerable to compromise. Here are the two browsers I recommend, given the goal of: 1) best compatibility on most websites, and 2) can be made more secure with a bit of tuning.

### #1: Recreational Surfing: Opera

Comment: Available for Windows / Mac OS-X / iOS / Android / Linux. Opera is truly the all-purpose browser – it is available on all popular OS's. Opera also is the only browser offering a built-in VPN option to completely secure your browsing.

**Make Opera More Secure:** <http://www.opera.com/help/tutorials/security/control/>

*IMPORTANT NOTE: Opera (the company) is being pursued as a takeover target by a consortium of Chinese firms. If this takeover is approved, I will need to re-evaluate whether Opera can be trusted as a browser and as a company.*

### #2: Business and Financial Surfing: Google Chrome

Comment: Available for Windows / Mac OS-X / iOS / Android / Linux. Chrome, like Opera is another all-purpose browser - available on all platforms. One downside: Chrome seems to have slower performance than Opera.

**Make Chrome More Secure:** <https://tools.google.com/dlpage/res/chrome/en-GB/more/security.html>

**Stay Safe!** -John Becker