



You'll notice we dropped both Internet Explorer and Apple's Safari web browser from our comparison. Microsoft's aging browser has had some improvements over the years, but it's no longer the default browser on Windows 10, and it doesn't offer much beyond the bare minimum. It only exists today because some companies need it for legacy applications. While [Apple's Safari web browser](#) is still used by many Mac users, it's no longer updated on Windows, and so we've removed it from the main list too.

Most browsers are compatible with web standards and handle performance with relative ease. A casual user probably won't notice a difference in the rendering speed between today's modern browsers, as all six browsers are much faster and leaner than those of a few years ago.

We ran the following benchmarks on a desktop with an Intel Core i7-4770K processor, 16GB of RAM, and a 256GB SSD. All browsers were clean installs of the most current production versions as of early 2019 and all were run at their default settings.

We switched to the latest Jetstream 2 benchmark — which focuses on modern web applications — and Edge has retained its number one ranking. Although there's a twist: The old Edge version wouldn't complete the test, and so the winner is the Chromium version. Opera is in second place and Chrome is close behind, with Firefox coming in last place with a significantly lower score.

Mozilla's Kraken benchmark has Firefox in a strong first-place finish with Edge Chromium coming in second and Chrome in third. Opera comes in third and the old Edge finishes in dead-last.

Interestingly, Chrome and Edge Chromium fell way behind in the HTML5 compliance test. Opera comes in first and Firefox in second.

Finally, we also tested how much RAM each browser uses, both with no tabs open and then with 10 tabs open accessing the same popular sites. We made sure that each browser had no extensions running, and we let each browser settle in before looking at its memory use. For the test with 10 tabs open, we averaged memory use when all of the tabs were first opened and then five minutes later, to account for any variability.

It's not a scientific test, but it should be sound enough to give an idea of which browsers are the most and least efficient in terms of taking up your RAM. We found Opera to use the least RAM both when first opened and Firefox used the least with all 10 tabs loaded. Chrome was much less efficient with multiple tabs opened while Edge Chromium was a solid performer in both instances.

## Security and privacy

The most valuable tool for secure browsing is user discretion, especially when you consider that every web browser has encountered security breaches in the past. In particular, Internet Explorer and Chrome's reputation for protecting users' security and privacy credentials is spotty at best.

Chrome, Safari, Vivaldi, Opera, and Firefox all rely on Google's Safe Browsing API to detect potentially dangerous sites. Thanks to constant updates, Mozilla, Chrome, and Opera all make constant security improvements.

All browsers offer a private session option, too. Private sessions prevent the storage of history, temporary internet files, and cookies. Browser support for Do Not Track remains spotty.

Mozilla has made some strides to try and differentiate itself from the others with a real focus on privacy in recent years. It even [debuted a Facebook Container](#) in 2018 to make it harder for the social network to harvest a user's information.

### Editors' Recommendations

- [Using the new Microsoft Edge browser on a Mac feels wrong, and I love it](#)
- [Microsoft's new Edge browser has launched, and it's finally worth switching to](#)
- [How to clear cookies](#)
- [I finally switched from Chrome to Mozilla Firefox — and you should too](#)
- [Microsoft's new Edge browser is great, but it's missing one big feature](#)

