

Opens External Anchors Using `rel="noopener"`

Overview

When your page links to another page using `target="_blank"`, the new page runs on the same process as your page. If the new page is executing expensive JavaScript, your page's performance may also suffer. See [The Performance Benefits of `rel=noopener`](#) for more information.

On top of this, `target="_blank"` is also a security vulnerability. The new page has access to your `window` object via `window.opener`, and it can navigate your page to a different URL using `window.opener.location = newURL`. See [About `rel=noopener`](#) for a demo and explanation of the vulnerability.

Adding a `rel="noopener"` attribute prevents the new page from being able to access the `window.opener` property and will ensure it runs in a separate process. The `rel="noreferrer"` attribute has the same effect, but will also prevent the `Referer` header from being sent to the new page. See [HTML Standard: Link type "noreferrer"](#) for an explanation of this behavior.

Recommendations

Add `rel="noopener"` or `rel="noreferrer"` to each of the links that Lighthouse has identified in your report. In general, always add one of these attributes when you open an external link in a new window or tab.

```
<a href="https://examplepetstore.com" target="_blank" rel="noopener">...</a>
```

More information

Lighthouse uses the following algorithm to flag links as `rel="noopener"` candidates:

1. Gather all `<a>` nodes that contain the attribute `target="_blank"` and do not contain the attribute `rel="noopener"` or `rel="noreferrer"`.
2. Filter out any same-host links.

Because Lighthouse filters out same-host links, there's an edge case that you might want to be aware of if you're working on a large site. If your page opens a link to another section of your site without using `rel="noopener"`, the performance implications of this audit still apply. However, you won't see these links in your Lighthouse results.

Feedback

Was this page helpful?

YES

NO

Great! Thank you for the feedback.

Sorry to hear that. Please [open an issue](#) and tell us how we can improve.

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